ALMANAC

IX

PLANETARY

PHENOMENA OF

JUPITER IN BCE

The almanac IX contains a list of planetary phenomena of Jupiter from the 6th millennium BCE to the 1st millennium BCE, from the 54th century BCE to the 1st century BCE.

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 1

•	ical year style is used: The		•	· / /			ige i
1 Illuminon, uomonom	-5400 Apr 17 j 22:32	0°Υ	in dononomour co	conjunction	-5395 Oct 13 j 16:34		1°01'42
evening set	-5400 Apr 24 j 10:55	1° Υ 26'31		minimum elong	-5395 Oct 13 j 16:38	-	1°01'49
	- · · · · · · · · · · · · · · · · · · ·			max. Earth dist.	-5395 Oct 12 j 15:14		6.21500 AU
conjunction	-5400 May 08 j 04:05	4° Ƴ 30′15	0°-32'-47	morning rise	-5395 Oct 26 j 05:31		
minimum elong	-5400 May 08 j 04:07	4° Ƴ 30'16	0°32'47	Č	-5394 Jan 14 j 06:47	0∘ ⊽	
max. Earth dist.	-5400 May 08 j 17:13	4° Ƴ 37'35	6.24913 AU	retrograde	-5394 Mar 01 j 21:14	3° £ 11'50	
morning rise	-5400 May 21 j 19:36	7° Ƴ 33'00		-	-5394 Apr 18 j 08:14	30°R Mp	
retrograde	-5400 Sep 22 j 01:42	25° Y 28′01		opposition	-5394 May 02 j 01:49	28° Mp 16'39	1°01'28
opposition	-5400 Nov 20 j 12:43	20° Y 29′24	0°-13'-53	min. Earth dist.	-5394 May 02 j 13:38	28° Mp 12'51	4.16445 AU
min. Earth dist.	-5400 Nov 20 j 11:16	20° Y 29′53	4.29459 AU	direct	-5394 Jul 01 j 15:56	23° Mp 22'33	
direct	-5399 Jan 20 j 09:10	15° Y 25'39			-5394 Sep 07 j 09:46	0∘ ⊽	
asc. node	-5399 Feb 06 j 09:06	15° Y 52'33		evening set	-5394 Nov 02 j 19:16	11° ≏ 58'13	
	-5399 May 11 j 07:51	9° 8					
evening set	-5399 May 28 j 11:40	3° 8 42'05		conjunction	-5394 Nov 15 j 13:01		0°17'52
				minimum elong	-5394 Nov 15 j 13:02		0°17'48
conjunction	-5399 Jun 10 j 22:31	6° 8 39'48		max. Earth dist.	-5394 Nov 15 j 07:09	14° £ 54'08	6.11679 AU
minimum elong	-5399 Jun 10 j 22:30	6° 8 39'47	0°15'05	morning rise	-5394 Nov 28 j 09:01		
behind sun begin	-5399 Jun 10 j 19:53	6° 8 38'21			-5393 Jan 23 j 14:29	0°M	
behind sun end	-5399 Jun 11 j 01:07	6° 8 41'13	(2220 (ATT	desc. node	-5393 Apr 02 j 22:22	7°M27'24	
max. Earth dist.	-5399 Jun 10 j 12:05	6° 8 34'03	6.33296 AU	retrograde	-5393 Apr 07 j 03:03	7°M29'05	00 121 45
morning rise	-5399 Jun 24 j 06:19	9° 8 35'54		opposition	-5393 Jun 07 j 02:05	2°M29'59	0°-12'-45
	-5399 Jul 19 j 13:11	15° 8		min. Earth dist.	-5393 Jun 06 j 20:34	2°M31'47	4.07558 AU
retrograde	-5399 Oct 23 j 07:15 -5399 Dec 22 j 01:58	26° 8 53'42 21° 8 58'50	0°54'05	direct	-5393 Jun 27 j 04:39		
opposition min. Earth dist.	-5399 Dec 22 j 01.38	21° 8 54'20	4.36070 AU	direct	-5393 Aug 05 j 08:37 -5393 Sep 12 j 21:41	0°M	
direct	-5399 Dec 22 j 13:44 -5398 Feb 22 j 01:29	16° 8 55'16	4.30070 AU		-5393 Nov 30 j 12:45		
direct	-5398 Jun 06 j 19:05	0° I		evening set	-5393 Nov 30 j 12:43 -5393 Dec 07 j 03:37		
evening set	-5398 Jun 30 j 01:04	4° Ⅱ 57'17		evening set	-3373 Dec 07 J 03.37	10 1103320	
max. Earth dist.	-5398 Jul 11 j 20:49		6.37563 AU	conjunction	-5393 Dec 20 j 04:59	19°M,39'04	0°-33'-28
man. Darm uist.	2570 041 11 1 20.17	, 2020,	0.57005110	minimum elong	-5393 Dec 20 j 04:56		0°33'41
conjunction	-5398 Jul 13 j 02:32	7° Ⅱ 49'20	0°57'11	max. Earth dist.	-5393 Dec 21 j 00:47		6.04562 AU
minimum elong	-5398 Jul 13 j 02:28	7° Ⅱ 49'18	0°57'28	morning rise	-5392 Jan 02 j 09:23		
morning rise	-5398 Jul 26 j 00:37	10° Ⅱ 39'43		Č	-5392 Feb 03 j 02:45	0° ∡ 7	
retrograde	-5398 Nov 23 j 08:00	27° Ⅱ 44'23		retrograde	-5392 May 13 j 04:44	12° х 53′23	
opposition	-5397 Jan 22 j 15:01	22° II 52'04	1°45'29	opposition	-5392 Jul 12 j 14:15	7° ∡ ¹50'34	-1°-24'-40
min. Earth dist.	-5397 Jan 23 j 15:24	22° II 44'13	4.37862 AU	min. Earth dist.	-5392 Jul 11 j 18:17	7° ∡ 757'15	4.02989 AU
direct	-5397 Mar 26 j 04:30	17° Ⅱ 49'59		direct	-5392 Sep 08 j 21:55	2° ∡ ¹56'44	
	-5397 Jul 04 j 10:11	0 \circ \odot		evening set	-5391 Jan 11 j 05:04	22° ∡ ¹07'33	
evening set	-5397 Jul 31 j 13:32	5° 5 47'32					
max. Earth dist.	-5397 Aug 11 j 16:01	8°914'56	6.36620 AU	conjunction	-5391 Jan 24 j 13:40		-1°-13'-19
				minimum elong	-5391 Jan 24 j 13:36		1°13'38
conjunction	-5397 Aug 13 j 06:16	8°936'11	1°22'52	max. Earth dist.	-5391 Jan 26 j 03:06		6.02825 AU
minimum elong	-5397 Aug 13 j 06:13	8° © 36'09	1°23'10	morning rise	-5391 Feb 07 j 01:43		
morning rise	-5397 Aug 25 j 20:07	11°523'32			-5391 Feb 13 j 14:18	0°る	
retrograde	-5397 Dec 25 j 01:30	28°540'02	2005120	retrograde	-5391 Jun 18 j 18:28	18°る38'09	4.0.4427.444
opposition	-5396 Feb 23 j 20:25	23°548'38	2°07'20	min. Earth dist.	-5391 Aug 16 j 11:28	13° る 42'36	4.04437 AU
min. Earth dist.	-5396 Feb 25 j 01:06	23°539'31	4.34355 AU	opposition	-5391 Aug 17 j 15:21	13° る 33'07	-2°-5'-12
direct	-5396 Apr 26 j 08:47 -5396 Jul 29 j 18:58	18° © 49'06 0° Ω		direct evening set	-5391 Oct 14 j 16:19 -5390 Feb 17 j 04:08	8°る36'32 27°る48'17	
avaning sat	,	6° Ω 51'46		evening set		2/ 0481/ 0°≈	
evening set max. Earth dist.	-5396 Aug 30 j 16:16 -5396 Sep 10 j 13:40	9° Ω 18'55	6.30731 AU		-5390 Feb 26 j 14:40	0 🌤	
max. Earth dist.	-5590 Sep 10 j 15.40	9 0610 33	0.30731 AU	conjunction	-5390 Mar 02 j 19:04	0°≈58'33	-1°-25'-46
conjunction	-5396 Sep 12 j 04:07	9° Ω 40'38	1°25'00	minimum elong	-5390 Mar 02 j 19:05	0 ≈5833 0°≈58'34	1°26'05
minimum elong	-5396 Sep 12 j 04:08	9° Ω 40'39	1°25'16	max. Earth dist.	-5390 Mar 04 j 14:13	0 ≈3834 1°≈23'42	6.07205 AU
morning rise	-5396 Sep 24 j 14:48	12° Ω 29'01	. 2010	morning rise	-5390 Mar 16 j 12:05	1 ≈23 42 4°≈09'46	3.0,203 AU
	-5396 Oct 05 j 22:07	12 0(2) 01			-5390 May 05 j 16:50	15°≈	
	-5395 Jan 11 j 18:02	0° m)		retrograde	-5390 Jul 24 j 01:27	23°≈45'59	
retrograde	-5395 Jan 26 j 03:37	0° mp 19'20		min. Earth dist.	-5390 Sep 20 j 11:27	18° ≈ 49'30	4.11309 AU
5	-5395 Feb 09 j 12:59	30°R Ω		opposition	-5390 Sep 21 j 11:24	18° ≈ 41'19	-1°-58'-51
opposition	-5395 Mar 28 j 06:19	25° Ω 26'51	1°52'25		-5390 Oct 22 j 00:59	15°R≈	
min. Earth dist.	-5395 Mar 29 j 06:42	25° Ω 19'06	4.26449 AU	direct	-5390 Nov 19 j 02:40	13° ≈ 41'19	
direct	-5395 May 29 j 01:34	20° £ 30′10			-5390 Dec 17 j 10:10	15° ≈	
	-5395 Aug 21 j 13:41	0° т р			-5389 Mar 14 j 01:18	0° ∀	
evening set	-5395 Oct 01 j 03:51	8° Mp 46'27		evening set	-5389 Mar 25 j 20:23	2°) €39'03	

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5389 in astronomical counting style is the year 5390 BCE in historical counting style. -5389 Apr 08 i 14:43 5°**)**(46'59 -1°-7'-3 minimum elong -5384 Sep 16 j 12:14 14° Ω 10'04 1°23'27 conjunction -5389 Apr 08 j 14:47 5°¥47'02 1°07'14 -5384 Sep 20 i 04:27 15°Ω minimum elong 6°**)**€05'10 max. Earth dist. -5389 Apr 09 j 22:37 -5384 Sep 28 j 22:37 6.15976 AU morning rise 16°**Ω**58'37 -5389 Apr 22 j 09:12 -5384 Dec 03 j 08:55 8°**)** 54'49 morning rise 0° m -5389 Aug 26 j 12:17 -5383 Jan 30 j 19:26 retrograde 27°**∺**36'42 retrograde 4° m 53'10 -5389 Oct 24 j 19:53 1°47'17 opposition 22°**H**34'46 -1°-11'-48 opposition -5383 Apr 01 j 23:22 0° m 00'27 min. Earth dist. -5389 Oct 24 j 05:49 22°**₭**39'32 4.21027 AU -5383 Apr 02 j 00:47 30°RΩ min. Earth dist. direct -5389 Dec 23 j 13:11 17° **★** 32'07 -5383 Apr 02 j 22:39 29°**Ω**53′03 4.25650 AU $0^{\circ}\Upsilon$ -5388 Mar 31 j 20:40 direct -5383 Jun 02 j 15:40 25°**Ω**04'12 evening set -5388 Apr 29 j 07:13 6°**Y**07′52 -5383 Jul 31 j 08:24 0° M evening set -5383 Oct 05 j 13:22 13° m 21'07 9°**Υ**10'56 0°-26'-18 -5388 May 12 j 23:46 -5383 Oct 17 j 01:46 16° M 00'23 conjunction max. Earth dist. 6.20613 AU -5388 May 12 j 23:49 minimum elong 9°**Y**10′57 0°26'17 max. Earth dist. -5388 May 13 j 09:08 9°**Υ**16'09 6.25966 AU conjunction -5383 Oct 18 j 02:18 16° Mp 14'34 0°56'40 morning rise -5388 May 26 j 14:33 12°Υ12'56 minimum elong -5383 Oct 18 j 02:22 16° Mp 14'36 0°56'46 -5388 Sep 21 j 12:48 0°8 morning rise -5383 Oct 30 j 16:04 19° Mp 08'35 retrograde -5388 Sep 26 j 13:18 0°802'30 -5383 Dec 20 j 17:28 0∘**⊽** -5388 Oct 01 j 13:25 30°R℃ retrograde -5382 Mar 06 j 16:47 7°**≏**53'15 opposition -5388 Nov 24 j 23:41 25°**Y**'04'27 0°-3'-58 opposition -5382 May 06 j 21:44 2°**♀**57'33 0°52'15 min. Earth dist. -5388 Nov 25 j 01:04 25°**Υ**'03'59 4.30354 AU min. Earth dist. -5382 May 07 j 07:27 2°**£**54'26 4.15508 AU asc. node -5388 Dec 17 j 06:17 22°\bar{Y}16'53 -5382 May 31 j 16:03 30°R M direct -5387 Jan 25 i 00:58 20° γ'00'39 direct -5382 Jul 06 i 08:01 28° m 03'40 -5387 Apr 23 j 12:29 0°8 -5382 Aug 10 i 13:26 0°Ω evening set -5387 Jun 02 j 03:38 8°**8**15'25 -5382 Nov 07 j 08:04 16° **Ω** 40'54 evening set -5387 Jun 15 j 13:24 11°**8**12'23 0°21'30 -5382 Nov 20 j 02:51 19°**£**41'03 conjunction conjunction 0°10'58 -5387 Jun 15 j 13:22 11°**8**12'22 0°21'40 -5382 Nov 20 j 02:52 19°**£**41'03 0°10'53 minimum elong minimum elong -5387 Jun 15 j 00:38 11°**8**05'21 -5382 Nov 19 j 20:42 19°**£**37'26 max. Earth dist. 6.33975 AU behind sun begin -5387 Jun 28 j 19:52 14°**8**07'41 -5382 Nov 20 j 09:02 19°**2**44'40 morning rise behind sun end -5387 Jul 02 j 19:37 15°**8** -5382 Nov 20 j 00:51 19°**♀**39'53 max. Earth dist. 6.10793 AU -5387 Sep 28 j 02:33 -5382 Dec 02 j 23:45 22°**£**42'32 $0^{\circ}\Pi$ morning rise -5387 Oct 27 j 15:28 -5381 Jan 04 j 07:54 1°**Ⅲ**22'41 0°M retrograde -5381 Feb 12 j 17:46 -5387 Nov 26 j 05:11 30°₽8 desc. node 7°M23'49 -5387 Dec 26 j 12:20 26°828'15 1°02'41 -5381 Apr 12 j 02:40 12°M 18'40 opposition retrograde -5387 Dec 27 j 02:51 26°\(\mathbf{2}23'30\) 4.36533 AU -5381 Jun 11 j 23:47 7°ML19'07 0°-23'-15 min. Earth dist. opposition -5386 Feb 26 j 13:38 21°**8**24'50 direct min. Earth dist. -5381 Jun 11 j 17:10 7°**ጤ**21'18 4.06799 AU -5386 May 19 j 10:31 0°**Ⅱ** direct -5381 Aug 10 j 03:16 2°M26'12 evening set -5386 Jul 04 j 13:17 9°**Ⅲ**25'54 -5381 Nov 13 j 23:06 15°M max. Earth dist. -5386 Jul 16 j 06:59 12°**Ⅲ**00'33 6.37786 AU evening set -5381 Dec 11 j 21:56 21°M24'43 conjunction -5386 Jul 17 j 13:21 12°**Д**17'17 1°02'00 conjunction -5381 Dec 25 j 00:07 24°M231'06 0°-39'-54 -5386 Jul 17 j 13:18 12°**Ⅲ**17'15 -5381 Dec 25 j 00:03 24°M31'04 0°40'09 minimum elong minimum elong -5386 Jul 30 j 10:05 15°**Ⅲ**07'01 max. Earth dist. -5381 Dec 25 j 20:35 24°M 43'16 morning rise 6.03983 AU -5386 Oct 20 j 21:03 -5380 Jan 07 j 05:47 27°M39'21 morning rise -5386 Nov 27 j 18:28 2°**©**11'34 -5380 Jan 17 j 06:09 retrograde -5385 Jan 05 i 00:05 30°R II retrograde -5380 May 18 i 03:12 17° ₹ 49'05 -5380 Jul 17 j 11:36 12° ₹ 45'54 -1°-32'-29 opposition -5385 Jan 27 i 02:53 27°**I**I19'33 1°50'32 opposition -5385 Jan 28 j 04:15 27°**Ц**11'25 4.37856 AU -5380 Jul 16 j 13:49 12° ₹ 53'13 4.02674 AU min. Earth dist. min. Earth dist. direct -5385 Mar 30 j 17:48 22°**Ⅱ**17'51 direct -5380 Sep 13 j 16:28 7°**∡**751'47 -5385 Jun 15 i 16:11 -5379 Jan 16 j 04:04 27° ₹ 04'36 000 evening set -5385 Aug 04 j 22:53 10°5514'45 -5379 Jan 28 j 13:01 0°궁 evening set max. Earth dist. -5385 Aug 15 j 23:17 12°5541'14 6.36368 AU -5379 Jan 29 j 13:48 0°**궁**14'40 -1°-16'-48 conjunction conjunction -5385 Aug 17 j 14:32 13°\$03'04 1°24'39 minimum elong -5379 Jan 29 j 13:45 0°る14'38 1°17'06 -5379 Jan 31 j 05:03 minimum elong -5385 Aug 17 j 14:30 13°503'03 1°24'58 max. Earth dist. 0°る37'54 6.02804 AU -5385 Aug 30 j 03:40 15°550'11 morning rise morning rise -5379 Feb 12 j 02:37 3°る26'20 -5385 Nov 13 j 12:14 0 $^{\circ}\Omega$ -5379 Jun 23 j 17:11 23°♂34'57 retrograde -5385 Dec 29 j 14:08 -5379 Aug 21 j 08:10 18°중39'01 4.04720 AU retrograde 3°**Ω**09′02 min. Earth dist. -5384 Feb 14 j 16:48 30°Rூ -5379 Aug 22 j 10:59 18°る29'52 -2°-7'-7 opposition -5379 Oct 19 j 12:57 13°る32'52 opposition -5384 Feb 28 j 10:41 28°\$17'34 2°07'27 direct min. Earth dist. -5384 Feb 29 j 14:41 28°508'40 4.33885 AU -5378 Feb 10 j 05:30 0°≈ direct -5384 Apr 30 j 21:41 23°518'24 evening set -5378 Feb 22 j 05:13 2°≈45'06 -5384 Jul 10 j 09:38 0 $^{\circ}$ Ω evening set $-5384 \text{ Sep } 04 \text{ j } 00:32 \quad 11^{\circ}\Omega 21'02$ conjunction -5378 Mar 07 j 20:56 5°**≈**55'29 -1°-24'-54 max. Earth dist. -5384 Sep 15 j 00:26 13°**Ω**49'48 6.30085 AU minimum elong -5378 Mar 07 j 20:57 5°**≈**55'30 1°25'10 -5378 Mar 09 j 15:38 6°**≈**20'20 6.07772 AU max. Earth dist. -5384 Sep 16 j 12:12 $14^{\circ}\Omega 10'02$ $1^{\circ}23'13$ -5378 Mar 21 j 14:35 9°≈06'42 conjunction morning rise

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5378 in astronomical counting style is the year 5379 BCE in historical counting style. -5378 Apr 16 i 19:08 15°≈ retrograde -5372 Jan 03 i 02:58 7°**Ω**36'35 opposition 2°Ω45'03 2°06'53 -5378 Jul 28 j 18:39 28°≈38'00 -5372 Mar 04 j 00:25 retrograde min. Earth dist. -5378 Sep 25 j 03:50 23°≈41'47 4.12113 AU min. Earth dist. -5372 Mar 05 j 05:02 2°**Ω**35'58 4.33051 AU -5378 Sep 26 j 03:43 23°≈33'38 -1°-54'-22 -5372 Mar 26 j 23:45 30°R 5 opposition -5372 May 05 j 10:27 27°5546'15 -5378 Nov 23 j 20:34 18°≈33'15 direct direct -5377 Feb 24 j 11:14 0°**)**€ -5372 Jun 13 j 13:29 0 $^{\circ}\Omega$ 7°**)**€29'49 -5377 Mar 30 j 20:15 -5372 Sep 04 j 15:06 15°**Ω** evening set evening set -5372 Sep $08 \text{ j } 08:19 \quad 15^{\circ} \Omega 50'02$ conjunction -5377 Apr 13 j 14:41 10° **★** 37'25 -1°-2'-21 max. Earth dist. -5372 Sep 19 j 07:35 $18^{\circ}\Omega 18'53$ 6.28951 AU minimum elong -5377 Apr 13 j 14:45 10° **∺** 37'27 1°02'30 -5377 Apr 14 j 19:30 10° **€** 53'48 max. Earth dist. 6.16972 AU conjunction -5372 Sep 20 j 19:47 18° Ω39'26 1°20'58 -5377 Apr 27 j 09:08 13°**)** 44'46 -5372 Sep 20 j 19:50 18° **Ω**39'27 morning rise minimum elong 1°21'11 -5377 Jul 23 j 13:54 -5372 Oct 03 j 06:28 21° Ω28'34 $0^{\circ}\Upsilon$ morning rise -5372 Nov 12 j 02:18 retrograde -5377 Aug 31 j 02:40 2°Y20'13 -5377 Oct 08 j 09:07 30°R € retrograde -5371 Feb 04 j 12:39 9°m/29'18 opposition opposition -5371 Apr 06 j 17:33 4° Mp 36'11 1°41'31 min. Earth dist. -5377 Oct 28 j 21:23 27° **€** 22'41 4.22101 AU min. Earth dist. -5371 Apr 07 j 14:58 4° m/29'22 4.24276 AU direct -5377 Dec 28 j 07:24 22° **∺** 15'49 -5371 May 23 j 17:02 30°RΩ -5376 Mar 12 j 11:32 $0^{\circ}\Upsilon$ direct -5371 Jun 07 j 05:45 29°**Ω**40'15 evening set -5376 May 04 j 03:01 10°**Υ**49'17 -5371 Jun 21 j 19:25 evening set -5371 Oct 10 j 00:11 17° mp 59'47 conjunction -5376 May 17 j 19:07 13°**Υ**'51'41 0°-19'-39 minimum elong -5376 May 17 j 19:09 13°**γ**′51′43 0°19′37 conjunction -5371 Oct 22 j 13:51 20° m 54'08 0°51'13 max. Earth dist. -5376 May 18 j 03:06 13°**Υ**56'08 6.27055 AU minimum elong -5371 Oct 22 j 13:55 20° m 54'10 0°51'17 morning rise -5376 May 31 j 08:55 16°**Υ** 52'51 max. Earth dist. -5371 Oct 21 j 16:54 20° m 41'59 6.19134 AU -5376 Aug 06 j 07:51 0° 8 -5371 Nov 04 j 04:16 23° m 49'06 morning rise -5376 Sep 30 j 22:02 4°**8**36'43 -5371 Dec 01 j 19:38 0∘**ত** retrograde -5376 Oct 27 j 06:12 3°**8**29'16 -5370 Mar 11 j 16:48 12°**£**41'28 retrograde asc. node -5376 Nov 26 j 19:27 30°R℃ -5370 May 11 j 20:36 opposition 7°**-**45′19 0°42'28 -5376 Nov 29 j 10:15 29°**Υ**39'09 0°05'56 -5370 May 12 j 04:59 7°**£**42'37 4.14021 AU min. Earth dist. opposition -5376 Nov 29 j 12:17 29°**Υ**38'28 4.31365 AU -5370 Jul 11 j 02:59 2°**£**51'40 min. Earth dist. direct -5375 Jan 29 j 14:09 24°**Y**35'17 -5370 Nov 12 j 00:54 21°**△**32'26 evening set direct -5375 Apr 02 j 06:12 0°**႘** -5375 Jun 06 j 18:27 12°**8**47'36 -5370 Nov 24 j 20:31 24°**£**33'34 0°03'48 evening set conjunction -5375 Jun 16 j 19:36 15°**8** -5370 Nov 24 j 20:33 24°**೨**33'35 0°03'42 minimum elong -5375 Jun 19 j 10:57 15°**8**34'55 6.34812 AU -5370 Nov 24 j 12:33 24°**£**28'53 max. Earth dist. behind sun begin -5370 Nov 25 j 04:33 24°**♀**38'17 behind sun end conjunction -5375 Jun 20 j 02:50 15°**8**43'40 0°27'54 max. Earth dist. -5370 Nov 24 j 20:15 24°**♀**33'25 6.09435 AU -5375 Jun 20 j 02:48 15°**8**43'39 0°28'07 morning rise -5370 Dec 07 j 18:49 27°**△**36'14 minimum elong morning rise -5375 Jul 03 j 08:05 18°**8**38'05 -5370 Dec 18 j 02:09 0°M -5375 Aug 29 j 10:09 Π $^{\circ}0$ desc. node -5370 Dec 23 j 18:00 1°M17'41 -5375 Nov 01 j 00:40 5°**Ⅱ**49'51 -5369 Mar 09 j 02:24 15° M⋅ retrograde -5375 Dec 30 j 22:14 0°**Ц**55'45 1°10'51 -5369 Apr 17 j 05:33 17°ML19'12 opposition retrograde min. Earth dist. -5375 Dec 31 j 15:05 0°**Д**50'16 4.37118 AU -5369 May 26 j 11:54 15°RM -5374 Jan 07 j 02:17 30°R8 -5369 Jun 17 j 01:44 12°M 19'07 0°-34'00 opposition -5374 Mar 03 j 03:10 25°852'27 -5369 Jun 16 j 15:54 12°M22'21 direct min. Earth dist. 4.05711 AU -5374 Apr 26 i 16:53 direct -5369 Aug 15 j 00:16 7°M26'09 -5374 Jul 08 j 23:33 13°**Д**51'45 evening set -5369 Oct 25 i 10:09 15°M evening set -5369 Dec 16 j 21:24 26°M28'03 -5374 Jul 21 j 22:23 16°**II**42'29 1°06'26 conjunction -5374 Jul 21 j 22:19 16°**Ⅲ**42'27 1°06'43 conjunction -5369 Dec 30 i 00:49 29°M 35'15 0°-46'-20 minimum elong -5374 Jul 20 j 14:33 16°**Ⅲ**24'56 6.38027 AU minimum elong -5369 Dec 30 j 00:46 29°M 35'13 0°46'37 max. Earth dist. -5374 Aug 03 j 17:47 19°**Д**31'34 max. Earth dist. -5369 Dec 31 j 01:34 29°M 49'58 6.03268 AU morning rise -5374 Sep 24 j 15:51 0.00 -5369 Dec 31 j 18:26 0°**∡**¹ -5368 Jan 12 j 07:29 -5374 Dec 02 j 02:33 retrograde 6°936'07 morning rise 2°×744'17 opposition -5373 Jan 31 j 13:32 1°54'12 1°54'56 retrograde -5368 May 23 j 08:51 22° ₹ 57'03 min. Earth dist. -5373 Feb 01 j 14:57 1°536'03 4.37744 AU opposition -5368 Jul 22 j 14:12 17°**х** 53'30 -1°-39'-57 -5373 Feb 14 j 09:53 30°RⅡ min. Earth dist. -5368 Jul 21 j 15:41 18°**尽** 01'04 4.02440 AU -5373 Apr 04 j 04:06 26°**∏**42'44 direct -5368 Sep 18 j 17:51 12° ₹ 59'08 direct -5373 May 22 j 14:25 -5367 Jan 11 j 20:06 0°궁 0ಂತಾ -5367 Jan 21 j 08:31 2°る13'22 evening set -5373 Aug 09 j 06:42 14°539'21 evening set max. Earth dist. -5373 Aug 20 j 06:26 17°505'42 6.35889 AU conjunction -5367 Feb 03 j 19:09 5°る23'42 -1°-19'-51 conjunction -5373 Aug 21 j 21:28 17°527'27 1°25'58 minimum elong -5367 Feb 03 j 19:06 5°る23'40 1°20'11 minimum elong -5373 Aug 21 j 21:27 17°527'26 1°26'16 max. Earth dist. -5367 Feb 05 j 12:26 5°る48'05 6.03075 AU

-5367 Feb 17 j 08:53

-5367 Jun 28 j 17:29 28°₹41'04

morning rise

retrograde

8°**る**35'35

-5373 Sep 03 j 09:49 20°5014'27

-5373 Oct 20 j 16:36 0°**Ω**

morning rise

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5367 in astronomical counting style is the year 5368 BCE in historical counting style. -5367 Aug 26 j 06:04 23°정45'36 4.05528 AU opposition -5361 Feb 04 j 20:51 5°959'49 1°58'34 min. Earth dist. min. Earth dist. -5367 Aug 27 j 10:18 23°る35'59 -5361 Feb 06 j 00:45 opposition -2°-8'-11 5°950'53 4.37312 AU -5361 Apr 08 j 12:35 -5367 Oct 24 j 12:29 18°る38'36 direct direct 0°958'38 -5366 Jan 23 j 06:08 -5361 Aug 13 j 10:57 18°956'17 0°≈≈ evening set -5366 Feb 27 j 10:03 7°≈49'04 evening set max. Earth dist. -5361 Aug 24 j 08:48 21°521'58 6.34933 AU conjunction -5366 Mar 13 j 02:15 10°≈59'07 -1°-23'-26 conjunction -5361 Aug 26 j 01:06 21°5544'28 1°26'46 minimum elong -5366 Mar 13 j 02:17 10°≈59'08 1°23'42 minimum elong -5361 Aug 26 j 01:05 21°9544'28 1°27'03 -5361 Sep 07 j 12:57 24°531'39 max. Earth dist. -5366 Mar 14 j 19:48 11°≈23'12 6.09052 AU morning rise morning rise -5366 Mar 26 j 20:16 14°≈09'52 -5361 Oct 02 j 20:17 $0^{\circ}\Omega$ -5366 Mar 30 j 11:43 15°≈ retrograde -5360 Jan 07 j 12:55 11° **Ω** 59'04 -5360 Mar 08 j 11:57 -5366 Jun 15 j 10:47 0°**)**€ opposition 7°**Ω**07'25 2°05'40 retrograde -5366 Aug 02 j 13:05 3°**)**€33'05 min. Earth dist. -5360 Mar 09 j 15:52 6°**£**58'33 4.31642 AU -5366 Sep 19 j 14:44 30°R≈ direct -5360 May 09 j 18:21 2°**Ω**09'00 opposition -5366 Sep 30 j 21:31 28°**≈**28'58 -1°-49'-3 -5360 Aug 19 j 15:46 15°**Ω** min. Earth dist. -5366 Sep 29 j 23:07 28°≈36'37 4.13726 AU evening set -5360 Sep 12 j 14:44 20°**Ω**16'12 direct -5366 Nov 28 j 19:17 23°≈28'10 max. Earth dist. -5360 Sep 23 j 15:49 22°**Ω**46'41 6.27207 AU -5365 Feb 03 j 21:30 0°**)**€ evening set -5365 Apr 04 j 20:19 12° **★** 20'21 conjunction -5360 Sep 25 j 02:18 23° Ω 06'20 1°18'16 minimum elong -5360 Sep 25 j 02:21 23° Ω 06'21 conjunction -5365 Apr 18 i 14:49 15°**)** €27'09 0°-57'-17 morning rise -5360 Oct 07 j 13:12 $25^{\circ}\Omega 56'18$ minimum elong -5365 Apr 18 j 14:53 15° \(27'12 \) 0°57'23 -5360 Oct 25 i 18:53 0° m max. Earth dist. -5365 Apr 19 j 18:54 15° ¥ 43'04 6.18804 AU retrograde -5359 Feb 09 i 07:41 14° m 05'30 morning rise -5365 May 02 j 08:43 18° + 33'31 opposition -5359 Apr 11 j 11:27 9° m 12'07 1°35'12 -5365 Jun 26 j 17:05 $0^{\circ}\Upsilon$ min. Earth dist. -5359 Apr 12 j 08:36 9° m 05'23 4.22299 AU -5365 Sep 04 j 13:24 6°Y59'30 -5359 Jun 11 j 20:23 4° m 16'33 retrograde direct -5365 Nov 02 j 20:51 1°Υ58'33 0°-53'-59 -5359 Oct 14 j 11:56 22° m 41'02 evening set opposition -5365 Nov 02 j 10:14 2°**Y**02'08 4.23967 AU -5359 Oct 26 j 06:53 25° m 25'16 min. Earth dist. max. Earth dist. 6.17108 AU -5365 Nov 17 j 22:23 30°R ₩ -5364 Jan 01 j 22:59 26° **∺** 55'27 -5359 Oct 27 j 02:18 25° Mp 36'34 0°45'25 direct conjunction -5364 Feb 16 j 10:05 0°**Υ** -5359 Oct 27 j 02:21 25° m 36'35 0°45'28 minimum elong -5364 May 08 j 20:11 15°**Υ**23'53 -5359 Nov 08 j 17:53 28° M 32'53 evening set morning rise -5359 Nov 15 j 01:13 0°**♀** -5364 May 22 j 11:12 18° Υ 25'10 0° -13'-5 -5358 Mar 16 j 17:32 17°**♀**34'55 conjunction retrograde -5364 May 22 j 11:13 18° **Y** 25'10 0° 13'02 -5358 May 16 j 20:55 12°**2**38'13 0°32'16 minimum elong opposition -5364 May 22 j 06:24 18°**Υ**22'30 -5358 May 17 j 01:45 12°**2**36'39 4.12114 AU behind sun begin min. Earth dist. -5364 May 22 j 16:02 18°**Υ**27'50 behind sun end direct -5358 Jul 15 j 21:11 7°**•**44'48 max. Earth dist. -5364 May 22 j 14:26 18°**Υ**26'57 6.28798 AU desc. node -5358 Nov 02 j 01:50 23°**♀**05'09 morning rise -5364 Jun 05 j 00:04 21°**Υ**25'10 evening set -5358 Nov 16 j 20:05 26°**♀**30'39 -5364 Jul 16 j 00:28 0°**႘** asc. node -5364 Sep 07 j 16:50 7°**8**49'26 conjunction -5358 Nov 29 j 16:57 29°**♀**33'01 0°-3'-38 -5364 Oct 05 j 04:35 9°**8**01'47 -5358 Nov 29 j 16:57 29°**೨**33'01 retrograde minimum elong 0°03'46 -5364 Dec 03 j 17:48 4°804'43 0°15'25 -5358 Nov 29 j 08:57 29°**2**28'18 opposition behind sun begin -5364 Dec 03 j 22:56 4°**8**03'01 4.32841 AU behind sun end -5358 Nov 30 j 00:58 29°**೨**37'44 min. Earth dist. -5363 Jan 08 j 20:15 30°R℃ max. Earth dist. -5358 Nov 29 j 21:50 29°**△**35'52 6.07832 AU -5363 Feb 03 i 02:52 29° Υ 00'48 direct -5358 Dec 01 i 14:32 0°M -5363 Feb 28 i 16:19 0°8 morning rise -5358 Dec 12 j 16:24 2°M36'55 -5363 Jun 01 i 05:57 15°℃ -5357 Feb 08 i 07:53 15°M -5363 Jun 11 j 04:52 17°**8**09'22 retrograde -5357 Apr 22 j 13:28 22°M27'25 evening set -5357 Jun 22 j 06:18 17°M26'43 0°-44'-42 opposition -5363 Jun 24 j 12:05 20°804'29 0°33'54 min. Earth dist. -5357 Jun 21 j 18:34 17° M 30'35 4.04569 AU conjunction -5363 Jun 24 j 12:03 20°**8**04'27 0°34'07 -5357 Jul 11 j 16:45 15°RML minimum elong -5357 Aug 20 j 01:38 12°**M**.33'41 -5363 Jun 23 j 18:08 19°**8**54'37 6.35893 AU max. Earth dist. direct -5357 Sep 27 j 19:28 15°M↓ morning rise -5363 Jul 07 j 15:46 22°857'52 -5363 Aug 10 j 03:23 Π $^{\circ}0$ -5357 Dec 14 j 23:57 0°⊀ retrograde -5363 Nov 05 j 03:33 10°**Ⅲ**06'12 -5357 Dec 22 j 00:05 1°**х** 38′56 evening set opposition -5362 Jan 04 j 03:49 5°**Ⅱ**12'31 1°18'17 min. Earth dist. -5362 Jan 04 j 21:52 5°**Ц**06'39 4.37747 AU -5356 Jan 04 j 04:34 4°\$\squad 46'53 0°-52'-31 conjunction -5362 Mar 07 j 10:05 0°**Ⅱ**09'23 -5356 Jan 04 j 04:31 4°**х** 46′50 direct minimum elong 0°52'48 -5362 Jul 13 j 05:33 18°**Ⅲ**07'15 -5356 Jan 05 j 08:59 5°**х**¹03'46 evening set max. Earth dist. 6.02675 AU -5362 Jul 24 j 15:54 20°**I**I38'01 6.38127 AU -5356 Jan 17 j 12:29 7°**∡**¹56'39 max. Earth dist. morning rise retrograde -5356 May 28 j 13:58 28° ₹ 10'57 conjunction -5362 Jul 26 j 02:59 20°**Ⅲ**57'22 1°10'18 opposition -5356 Jul 27 j 18:08 23°**尽** 06'58 -1°-46'-42 minimum elong -5362 Jul 26 j 02:56 20°**Ⅲ**57'20 1°10'36 min. Earth dist. -5356 Jul 26 j 17:00 23°**尽** 15'26 4.02486 AU morning rise -5362 Aug 07 j 21:19 23°**Ⅲ**45'57 direct -5356 Sep 23 j 19:21 18°**∡**12'14 -5362 Sep 06 j 06:45 -5356 Dec 24 j 18:52 0°る -5362 Dec 06 j 09:38 10°551'32 -5355 Jan 26 j 15:03 7°る26'38 retrograde evening set

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5355 in astronomical counting style is the year 5356 BCE in historical counting style. -5355 Feb 09 j 02:31 10°**ರ**37'02 -1°-22'-20 morning rise -5350 Aug 12 j 04:10 28°**Ⅲ**08'57 conjunction -5355 Feb 09 j 02:29 10°る37'01 -5350 Aug 20 j 15:51 minimum elong 1°22'39 000 -5355 Feb 10 j 20:43 11°る01'55 -5350 Dec 10 j 18:27 15°516'31 max. Earth dist. 6.03698 AU retrograde -5355 Feb 22 j 17:03 13°る48'55 -5349 Feb 09 j 08:25 10°524'56 opposition 2°01'43 morning rise -5355 May 14 j 14:17 -5349 Feb 10 j 12:10 10°516'04 0°≈ min. Earth dist. 4.36701 AU 3°≈49'24 -5349 Apr 12 j 22:43 -5355 Jul 03 j 18:22 retrograde direct 5°9524'07 -5355 Aug 23 j 01:32 30°Ŗる evening set -5349 Aug 17 j 19:26 23°523'07 min. Earth dist. -5355 Aug 31 j 06:05 28°**る**53'41 4.06627 AU max. Earth dist. -5349 Aug 28 j 16:08 25°5548'36 6.33956 AU opposition -5355 Sep 01 j 09:56 28°₹44'10 -2°-8'-14 direct -5355 Oct 29 j 15:01 23°**정**46'12 conjunction -5349 Aug 30 j 08:49 26°511'23 1°27'07 -5354 Jan 01 j 23:07 0°≈ minimum elong -5349 Aug 30 j 08:48 26°511'22 1°27'23 -5349 Sep 11 j 20:16 28°558'46 evening set -5354 Mar 04 j 15:02 12°≈53'47 morning rise -5354 Mar 13 j 18:06 15°≈ -5349 Sep 16 j 10:39 $0^{\circ}\Omega$ -5349 Dec 11 j 13:19 15°**Ω** conjunction -5354 Mar 18 j 07:55 16°≈03'25 -1°-21'-21 retrograde -5348 Jan 12 j 05:22 16°**Ω**31'29 minimum elong -5354 Mar 18 j 07:58 16°≈03'27 1°21'36 -5348 Feb 13 j 01:42 15°RΩ max. Earth dist. -5354 Mar 20 j 01:49 16°≈27'38 6.10513 AU opposition -5348 Mar 13 j 04:14 11°**Ω**39'46 2°03'38 morning rise -5354 Apr 01 j 02:03 19°≈13'34 min. Earth dist. -5348 Mar 14 j 08:38 11°**Ω**30'45 4.30364 AU -5354 May 21 j 12:01 0°**)**€ direct -5348 May 14 j 09:28 6°**Ω**41'46 retrograde -5354 Aug 07 j 07:16 8°\ 28'01 -5348 Aug 01 j 07:29 15°**Ω** opposition -5354 Oct 05 j 15:06 3°**)** €24'14 -1°-42'-59 evening set $-5348 \text{ Sep } 17 \text{ j } 00:47 \quad 24^{\circ} \Omega 51'34$ min. Earth dist. -5354 Oct 04 i 17:46 3°**)** 31'30 4.15373 AU max. Earth dist. -5348 Sep 28 j 03:29 $27^{\circ}\Omega 23'29$ 6.25749 AU -5354 Nov 02 i 05:14 30°R≈ direct -5354 Dec 03 j 15:58 28°≈23'01 conjunction -5348 Sep 29 i 12:33 $27^{\circ}\Omega 42'22$ 1°15'00 -5353 Jan 04 j 11:58 0°**)**€ minimum elong -5348 Sep 29 j 12:36 $27^{\circ}\Omega 42'24$ 1°15'12 evening set -5353 Apr 09 j 20:33 17°¥ 10'57 -5348 Oct 09 j 13:37 0° m -5348 Oct 11 j 23:52 0° m 33'08 morning rise -5347 Feb 14 i 03:53 18° mp 49'47 conjunction retrograde -5353 Apr 23 j 14:46 20° **)** € 16'58 0°51'53 opposition -5347 Apr 16 j 09:04 13° M 56'03 1°28'01 minimum elong -5353 Apr 24 j 14:08 20° ₩ 30'10 6.20496 AU -5347 Apr 17 j 03:11 13° m 50'16 4.20781 AU max. Earth dist. min. Earth dist. 9°**m**00'55 -5353 May 07 j 08:19 23°**米**22'24 -5347 Jun 16 j 12:38 direct morning rise -5353 Jun 06 j 22:28 0°**Υ** -5347 Oct 19 j 02:20 27° m 28'30 evening set -5347 Oct 29 j 22:42 -5353 Sep 09 j 00:33 11°**Υ**39'50 0∘**⊽** retrograde -5353 Nov 07 j 09:09 6° **Y**39'22 0° -44'-36 opposition 4.25546 AU -5353 Nov 07 j 01:04 6°**Υ**42'05 -5347 Oct 31 j 17:26 0°**2**24'57 0°39'12 min. Earth dist. conjunction -5352 Jan 06 j 16:22 1°**Υ**35'59 -5347 Oct 31 j 17:29 direct minimum elong 0°**2**24'59 0°39'13 -5352 May 13 j 14:10 20°**Υ**00'39 -5347 Oct 31 j 02:01 evening set max. Earth dist. 0°**£**15'57 6.15693 AU morning rise -5347 Nov 13 j 09:54 3°**£**22'19 conjunction -5352 May 27 j 04:29 23°**Y**01'02 0°-6'-23 retrograde -5346 Mar 21 j 21:41 22°**△**31'44 -5352 May 27 j 04:29 23°**Υ**01'02 0°06'17 opposition -5346 May 21 j 22:54 17°**Ω**34'32 0°21'42 minimum elong behind sun begin -5352 May 26 j 20:42 22°**Υ**56'44 min. Earth dist. -5346 May 22 j 01:53 17°**△**33'34 4.10918 AU -5352 May 27 j 12:16 23°**Υ**05'20 direct -5346 Jul 20 j 19:44 12°**2**41'19 behind sun end desc. node -5352 May 27 j 05:24 23°**Υ**01'32 6.30165 AU -5346 Sep 11 j 13:54 16°**♀**57'15 max. Earth dist. -5352 Jun 09 j 16:04 25°**Υ**59'59 -5346 Nov 15 j 07:00 morning rise -5352 Jun 28 j 03:44 -5346 Nov 21 j 16:13 0°8 evening set 1°M29'44 asc. node -5352 Jul 18 j 18:17 4°**8**11'19 -5346 Dec 04 i 14:04 4°M32'55 0°-10'-55 retrograde -5352 Oct 09 j 12:10 13°\(230'48\) conjunction opposition -5352 Dec 08 i 03:05 8°**8**34'17 0°25'00 minimum elong -5346 Dec 04 i 14:03 4°M32'54 0°11'05 min. Earth dist. -5352 Dec 08 i 09:54 8°**8**32'02 4.33901 AU behind sun begin -5346 Dec 04 i 07:57 4°M29'18 direct -5351 Feb 07 i 15:10 3°830'25 behind sun end -5346 Dec 04 i 20:10 4°MJ36'30 -5351 May 15 i 07:49 15°8 max. Earth dist. -5346 Dec 04 j 22:34 4°ML37'56 6.06977 AU -5351 Jun 15 j 17:35 21°**8**36'38 morning rise -5346 Dec 17 j 14:45 7°M37'43 evening set -5345 Jan 19 j 02:35 15° M -5351 Jun 28 j 23:20 24°**8**30'55 0°39'52 conjunction retrograde -5345 Apr 27 j 17:01 27° M 32'30 0°-54'-57 minimum elong -5351 Jun 28 j 23:16 24°**8**30'53 0°40'05 opposition -5345 Jun 27 j 09:15 22°M231'17 max. Earth dist. -5351 Jun 28 j 00:49 24°**8**18'32 6.36553 AU min. Earth dist. -5345 Jun 26 j 18:25 22°M 36'12 4.04169 AU morning rise -5351 Jul 12 j 01:51 27°**8**23'30 direct -5345 Aug 25 j 00:15 17°ML38'11 -5351 Jul 24 j 03:03 $\Pi^{\circ}0$ -5345 Nov 27 j 15:14 0°**∡**¹ -5351 Nov 09 j 12:10 14°**Д**29'57 -5345 Dec 27 j 01:08 6°**∡**¹44'28 retrograde evening set -5350 Jan 08 j 13:10 9°**Ⅲ**36'38 1°25'32 opposition 9°**Ⅱ**29'56 4.37990 AU -5344 Jan 09 j 06:31 9°**x** 52'46 0°-58'-11 min. Earth dist. -5350 Jan 09 j 09:50 conjunction direct -5350 Mar 11 j 22:27 4°**Ⅲ**33'40 minimum elong -5344 Jan 09 j 06:27 9°**х** 52'43 0°58'28 evening set -5350 Jul 17 j 14:43 22°**Ⅲ**31'04 max. Earth dist. -5344 Jan 10 j 13:18 10° **₹** 11'04 6.02732 AU max. Earth dist. -5350 Jul 28 j 23:24 25°**Ⅲ**01'04 6.37920 AU morning rise -5344 Jan 22 j 15:23 13°**∡** 02'54 -5344 Apr 17 j 05:26 0°ಕ -5350 Jul 30 j 11:07 25°**Ⅲ**20'47 1°13'57 -5344 Jun 02 j 15:52 3°る16'26 conjunction retrograde

-5344 Jul 19 j 03:57 30°R **✓**

-5350 Jul 30 j 11:03 25°**Ⅲ**20'45 1°14'16

minimum elong

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5344 in astronomical counting style is the year 5345 BCE in historical counting style. -5344 Aug 01 j 18:38 28°**尽** 12'07 -1°-52'-25 direct -5338 Mar 16 j 09:07 8°**Ⅱ**59'18 opposition -5344 Jul 31 j 16:47 28° ₹20'51 4.03001 AU -5338 Jul 22 j 00:24 26° **1**57'10 min. Earth dist. evening set -5344 Sep 28 j 20:31 23° ₹ 16'57 -5338 Aug 02 j 05:34 29°**Ⅱ**25'34 direct max. Earth dist. 6.37466 AU -5344 Dec 04 j 09:00 0°る -5338 Aug 03 j 19:30 29°**Ⅱ**46'33 1°17'09 -5343 Jan 31 j 17:45 12°る30'13 evening set conjunction -5338 Aug 03 j 19:27 29°**Ⅱ**46'31 1°17'28 minimum elong -5343 Feb 14 j 06:08 15°**⋜**40'34 -1°-24'-5 -5338 Aug 04 j 19:49 conjunction 0.ಎ -5343 Feb 14 j 06:07 15°**⋜**40'33 minimum elong 1°24'24 morning rise -5338 Aug 16 j 11:43 2°934'31 -5343 Feb 16 j 02:20 16°**る**06'32 max. Earth dist. 6.04606 AU retrograde -5338 Dec 15 j 06:49 19°544'46 morning rise -5343 Feb 27 j 21:10 18° **정**52'14 opposition -5337 Feb 13 j 21:26 14°553'16 2°04'09 -5343 Apr 20 j 02:46 0°≈ min. Earth dist. -5337 Feb 15 j 02:07 14°544'07 4.35955 AU -5343 Jul 08 j 15:28 -5337 Apr 17 j 12:17 retrograde 8°≈46'57 direct 9°**9**52'48 min. Earth dist. -5343 Sep 05 j 02:02 3°≈51'06 4.07837 AU evening set -5337 Aug 22 j 04:21 27°553'04 opposition -5343 Sep 06 j 05:12 3°**≈**41'50 -2°-7'-19 -5337 Aug 31 j 15:23 $0^{\circ}\Omega$ -5343 Oct 06 j 22:49 30°Ŗる max. Earth dist. -5337 Sep 02 j 02:28 0°**Ω**19'42 6.32978 AU direct -5343 Nov 03 j 12:01 28°る43'25 -5343 Dec 01 j 05:59 0°≈ conjunction -5337 Sep 03 j 17:20 0°Ω41'30 1°26'55 -5342 Feb 25 j 07:32 15°≈ minimum elong -5337 Sep 03 j 17:20 0°**Ω**41'30 1°27'12 evening set -5342 Mar 09 j 16:03 17°≈48'12 morning rise -5337 Sep 16 j 04:18 3°**£**29′07 -5337 Nov 11 j 22:32 15°**Ω** conjunction -5342 Mar 23 j 09:10 20°≈57'23 -1°-18'-45 retrograde -5336 Jan 16 j 20:05 $21^{\circ}\Omega$ 06'55 minimum elong -5342 Mar 23 i 09:13 20°≈57'25 1°18'59 opposition -5336 Mar 17 j 21:30 16° Ω 14'59 2°00'48 max. Earth dist. -5342 Mar 24 j 23:30 21°≈19'27 6.11898 AU min. Earth dist. -5336 Mar 18 j 23:55 $16^{\circ}\Omega$ 06'35 4.29222 AU morning rise -5342 Apr 06 i 03:38 24°≈07'00 -5336 Mar 27 i 20:14 15°RΩ -5342 May 02 j 14:41 0°**∀** direct -5336 May 18 j 23:17 $11^{\circ}\Omega$ 17'25 -5342 Aug 11 i 20:11 13°¥ 13'30 -5336 Jul 08 j 18:41 15°**Ω** retrograde -5342 Oct 09 j 09:04 8°**¥**16'47 4.16787 AU -5336 Sep 21 j 11:29 $29^{\circ}\Omega 28'56$ evening set min. Earth dist. -5342 Oct 10 j 04:42 8°**升**10'05 -1°-36'-27 -5336 Sep 23 j 18:06 0° m opposition -5342 Dec 08 j 09:17 3°**米**08'29 direct -5341 Apr 14 j 16:58 21° ¥ 53'20 -5336 Oct 03 j 23:17 2° m 20'16 1°11'15 conjunction evening set -5336 Oct 03 j 23:21 2° m 20'18 $1^{\circ}11'24$ minimum elong -5341 Apr 28 j 11:04 24°**)** 58'43 0°-46'-9 -5336 Oct 02 j 16:12 2°Mp02'27 conjunction max. Earth dist. 6.24537 AU -5341 Apr 28 j 11:08 24° **★** 58'45 0°46'14 -5336 Oct 16 j 11:03 5° Mp 11'43 minimum elong morning rise -5341 Apr 29 j 07:55 25° **₭** 10'27 -5335 Feb 19 j 02:16 23° m 34'42 max. Earth dist. 6.21852 AU retrograde -5341 May 12 j 04:03 28° **₭** 03'22 -5335 Apr 21 j 06:42 18° mp 40'31 1°20'13 morning rise opposition -5341 May 20 j 22:25 0°**Υ** -5335 Apr 21 j 23:35 18° m 35'07 4.19548 AU min. Earth dist. -5341 Sep 13 j 10:31 16° Υ 13'55 retrograde direct -5335 Jun 21 j 07:31 13° **m** 45'39 -5341 Nov 11 j 19:01 11°**Υ**14'03 0°-35'-13 -5335 Oct 13 j 21:37 0∘<u>ଫ</u> opposition min. Earth dist. -5341 Nov 11 j 13:22 11°**Υ**15'57 4.26714 AU evening set -5335 Oct 23 j 16:27 2°**£**15'12 direct -5340 Jan 11 j 06:09 6°**Υ**10'35 -5340 May 18 j 05:49 24°**Υ**32'57 conjunction -5335 Nov 05 j 08:23 5°**£**12'29 0°32'44 evening set -5340 May 29 j 10:06 27°**Υ**01'02 -5335 Nov 05 j 08:26 5°**⊆**12'30 0°32'44 asc. node minimum elong -5335 Nov 04 j 20:11 5°**≏**05'21 max. Earth dist. 6.14554 AU -5340 May 31 j 19:06 27°**Υ**32'34 0°00'18 -5335 Nov 18 j 01:50 8°**♀**10'46 conjunction morning rise -5340 May 31 j 19:07 27°**Υ**32'35 -5334 Mar 26 j 22:15 27°**2**26'15 minimum elong 0°00'26 retrograde -5340 May 31 i 10:52 27°**Υ**28'03 behind sun begin opposition -5334 May 26 j 23:29 22° \(\Omega\) 28'29 0°11'01 -5340 Jun 01 i 03:21 27°**Υ**37'07 behind sun end min. Earth dist. -5334 May 26 j 23:28 22° \(\Omega\) 28'29 4.09963 AU -5340 May 31 j 15:19 27° γ 30'32 6.31055 AU max. Earth dist. desc. node -5334 Jul 22 j 18:09 17°**2**36'13 -5340 Jun 11 j 21:51 0°B direct -5334 Jul 25 i 15:15 17°**2**35'24 -5340 Jun 14 j 05:47 0°830'46 -5334 Oct 29 j 08:09 morning rise oom. -5340 Aug 30 j 21:02 15°8 -5334 Nov 26 j 11:24 6°M25'44 evening set -5340 Oct 13 j 19:27 17°857'45 retrograde -5340 Nov 27 j 01:48 15°**₹**8 -5334 Dec 09 j 10:10 9°ML29'38 0°-18'-4 conjunction opposition -5340 Dec 12 j 11:35 13°**8**01'43 0°34'17 minimum elong -5334 Dec 09 j 10:08 9°**™**29'37 0°18'16 min. Earth dist. -5340 Dec 12 j 20:43 12°**8**58'42 4.34476 AU max. Earth dist. -5334 Dec 09 j 21:21 9°**™**36′15 6.06276 AU direct -5339 Feb 12 j 03:18 7°**8**57'53 morning rise -5334 Dec 22 j 11:59 12°M35'13 -5339 Apr 26 j 00:14 15°**႘** -5333 Jan 01 j 20:01 15°M -5339 Jun 20 j 05:25 26°**8**03'19 -5333 Mar 22 j 17:12 evening set 0° ×7 -5339 Jul 02 j 10:20 28°**8**43'58 -5333 May 02 j 19:33 2°**х¹**33'48 max. Earth dist. 6.36776 AU retrograde -5333 Jun 12 j 23:29 30°RML -5339 Jul 03 j 10:01 28°**8**57'00 0°45'31 -5333 Jul 02 j 10:28 27°M32'02 -1°-4'-42 conjunction opposition minimum elong -5339 Jul 03 j 09:57 28°**8**56'58 0°45'46 min. Earth dist. -5333 Jul 01 j 18:03 27°M 37'29 4.03791 AU -5339 Jul 08 j 04:30 Π °0 direct -5333 Aug 29 j 23:34 22°M 38'43 morning rise -5339 Jul 16 j 11:03 1°**Ⅱ**48'55 -5333 Nov 08 j 00:28 0°**∡**¹ retrograde -5339 Nov 13 j 19:33 18°**Ⅲ**54'55 evening set -5332 Jan 01 j 01:05 11°**х** 46'14 -5338 Jan 12 j 22:40 14°**Д**01'58 1°32'16 opposition min. Earth dist. -5338 Jan 13 j 20:15 13°**Д**55'00 4.37878 AU -5332 Jan 14 j 07:35 14° **₹** 54'58 -1°-3'-23 conjunction

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5332 in astronomical counting style is the year 5333 BCE in historical counting style. morning rise -5332 Jan 14 j 07:31 14°**尽** 54'56 1°03'41 -5327 Jul 20 j 21:42 6°**Ⅱ**17'44 minimum elong -5332 Jan 15 i 17:45 15° ₹ 15'15 -5327 Nov 18 j 05:27 23°**II**23'12 max. Earth dist. 6 02706 AU retrograde -5332 Jan 27 j 17:18 18° ₹05'27 opposition -5326 Jan 17 j 10:16 18°**Д**30'33 1°38'37 morning rise -5326 Jan 18 j 08:43 18°**Д**23'19 4.37923 AU -5332 Mar 22 j 10:37 0°₹ min. Earth dist. -5332 Jun 07 j 17:37 -5326 Mar 20 j 22:09 retrograde 8°る18'20 direct 13°**Ⅲ**28′10 opposition -5332 Aug 06 j 17:29 3°**る**13'47 -1°-57'-17 -5326 Jul 19 j 21:44 0ംഉ 1°9525'42 min. Earth dist. -5332 Aug 05 j 15:22 3°る22'38 4.03359 AU evening set -5326 Jul 26 j 10:41 30°₽**,∡**7 -5332 Sep 01 j 20:43 max. Earth dist. -5326 Aug 06 j 16:04 3°954'21 6.37266 AU direct -5332 Oct 03 j 18:51 28°**⋌**18'14 0°₹ -5332 Nov 04 j 16:27 conjunction -5326 Aug 08 j 04:45 4°छ14'41 1°19'58 evening set -5331 Feb 05 j 20:15 17°る31'15 minimum elong -5326 Aug 08 j 04:43 4°छ14'39 1°20'16 -5326 Aug 20 j 19:46 morning rise 7°9602'16 -5331 Feb 19 j 09:17 20°₹41'36 -1°-25'-15 -5326 Dec 19 j 18:06 24°514'30 conjunction retrograde minimum elong -5331 Feb 19 j 09:16 20°₹41'36 1°25'33 opposition -5325 Feb 18 j 11:21 19°523'05 2°05'52 max. Earth dist. -5331 Feb 21 j 04:01 21°**궁**06'40 6.05283 AU min. Earth dist. -5325 Feb 19 j 15:28 19°9514'08 4.35540 AU morning rise -5331 Mar 05 j 01:09 23°**ਰ**53'15 direct -5325 Apr 22 j 01:25 14°9523'05 -5331 Apr 01 j 01:16 -5325 Aug 15 j 17:46 $0^{\circ}\Omega$ retrograde -5331 Jul 13 j 10:24 13°≈42'59 evening set -5325 Aug 26 j 13:27 2°**£**23′23 opposition -5331 Sep 10 j 23:48 8°**≈**37'56 -2°-5'-34 max. Earth dist. -5325 Sep 06 j 10:39 4°**Ω**49'49 6.32370 AU min. Earth dist. -5331 Sep 09 j 20:55 8°**≈**47'07 4.08764 AU direct -5331 Nov 08 j 08:07 3°≈39'01 conjunction -5325 Sep 08 j 01:44 5°**Ω**11'48 1°26'14 -5330 Feb 07 i 17:11 15°≈ minimum elong -5325 Sep 08 i 01:45 5°**Ω**11'48 1°26'31 evening set -5330 Mar 14 j 17:06 22°≈42'06 morning rise -5325 Sep 20 j 12:33 7°**Ω**59'34 -5325 Oct 23 i 01:59 $15^{\circ}\Omega$ conjunction -5330 Mar 28 i 10:49 25°≈51'02 -1°-15'-36 retrograde -5324 Jan 21 j 12:35 $25^{\circ}\Omega$ 41'22 -5330 Mar 28 j 10:53 25°≈51'05 -5324 Mar 22 j 14:36 $20^{\circ}\Omega$ 49'13 $1^{\circ}57'13$ minimum elong 1°15'48 opposition -5330 Mar 29 j 23:51 26°≈12'18 min. Earth dist. -5324 Mar 23 j 16:17 $20^{\circ}\Omega$ 41'03 4.28444 AU max. Earth dist. 6.13010 AU -5330 Apr 11 j 05:18 29°≈00'12 direct -5324 May 23 j 14:32 $15^{\circ}\Omega$ 52'00 morning rise -5330 Apr 15 j 14:44 -5324 Sep 07 j 16:23 0° My 0°**)**€ -5330 Aug 16 j 12:10 17°**)** € 59'46 -5324 Sep 25 j 20:53 4° m 04'03 retrograde evening set -5330 Oct 14 j 19:10 12° **★** 56'47 -1°-29'-16 -5324 Oct 07 j 04:54 6° m 39'43 max. Earth dist. 6.23665 AU opposition -5330 Oct 14 j 01:54 13°¥02'39 4.17945 AU min. Earth dist. -5324 Oct 08 j 09:03 -5330 Dec 13 j 03:49 7° **★** 54'51 conjunction 6° m 55'52 1°07'05 direct 6° m 55'54 -5329 Apr 19 j 14:30 26° ★ 37'25 -5324 Oct 08 j 09:07 evening set minimum elong 1°07'13 9°**™**47'53 -5324 Oct 20 j 21:09 morning rise -5329 May 03 j 08:17 29° **★**42'13 0°-40'-9 -5323 Feb 23 j 21:25 28° m 16'13 conjunction retrograde -5329 May 03 j 08:20 29° **★**42'15 0°40'12 -5323 Apr 26 j 02:50 23° m 21'37 1°11'58 minimum elong opposition max. Earth dist. -5329 May 04 j 01:28 29° **H** 51'51 6.22969 AU min. Earth dist. -5323 Apr 26 j 17:26 23° Mp 16'57 4.18627 AU -5329 May 04 j 15:58 $0^{\circ}\Upsilon$ direct -5323 Jun 25 j 23:01 18° M 27'06 morning rise -5329 May 17 j 00:48 2°**Y**46'12 -5323 Sep 27 j 02:58 0∘<u>ଫ</u> retrograde -5329 Sep 17 j 20:28 20°**Υ** 50'41 evening set -5323 Oct 28 j 04:52 6°**£**57'46 -5329 Nov 16 j 06:16 15°**Υ**51'20 0°-25'-29 opposition min. Earth dist. -5329 Nov 16 j 02:10 15°**Υ**'52'43 4.27698 AU -5323 Nov 09 j 21:23 9°**£**55'44 0°26'09 conjunction -5328 Jan 15 j 20:58 10°**Υ**47'44 -5323 Nov 09 j 21:25 9°**£**55'45 0°26'08 direct minimum elong -5328 Apr 07 j 19:42 19°**Υ**48'06 max. Earth dist. -5323 Nov 09 j 11:00 9°**£**49'39 asc. node 6.13662 AU -5328 May 22 j 23:02 29° Υ 08'23 evening set morning rise -5323 Nov 22 j 15:52 12°**£**54'51 -5328 May 26 j 20:57 0°8 -5322 Feb 21 i 02:28 retrograde -5322 Mar 31 i 20:51 2°M15'50 conjunction -5328 Jun 05 j 11:23 2°807'18 0°07'05 -5322 May 09 i 19:59 30°R **♀** minimum elong -5328 Jun 05 i 11:22 2°**8**07'17 0°07'14 -5322 May 31 j 21:39 27° **2**17'29 0°00'28 opposition behind sun begin -5328 Jun 05 j 03:50 2°803'09 min. Earth dist. -5322 May 31 j 19:47 27° **2**18'05 4.09156 AU behind sun end -5328 Jun 05 j 18:54 2°811'26 desc. node -5322 Jun 03 j 06:18 26°**£**59'02 max. Earth dist. -5328 Jun 05 j 05:05 2°**8**03'50 6.31855 AU direct -5322 Jul 30 j 10:04 22°**2**24'26 morning rise -5328 Jun 18 j 20:49 5°**8**04'40 -5322 Oct 10 j 10:06 -5328 Aug 06 j 08:02 15°**႘** evening set -5322 Dec 01 j 04:28 11°ML16'35 -5328 Oct 18 j 05:20 22°**8**28'07 retrograde opposition -5328 Dec 16 j 22:01 17°\(232'40\) 0°43'33 conjunction -5322 Dec 14 j 04:21 14°ML21'12 0°-24'-58 -5328 Dec 17 j 09:09 17°**8**29'00 4.35046 AU minimum elong -5322 Dec 14 j 04:19 14°M21'10 min. Earth dist. 0°25'10 -5327 Jan 06 j 05:57 15°R₩ -5322 Dec 14 j 19:07 14° M29'57 6.05636 AU max. Earth dist. direct -5327 Feb 16 j 17:12 12°**8**29'00 -5322 Dec 16 j 21:46 15°M -5327 Mar 30 j 11:45 15°**8** morning rise -5322 Dec 27 j 07:09 17°M27'31 -5327 Jun 22 j 05:16 $0^{\circ}\Pi$ -5321 Feb 23 j 13:23 0°**∡**¹ evening set -5327 Jun 24 j 18:39 0°**Ⅲ**33'27 retrograde -5321 May 07 j 20:34 7°**х** 29′36 opposition -5321 Jul 07 j 08:50 2°**х¹**27'27 -1°-13'-46 conjunction -5327 Jul 07 j 21:52 3°**I**126'26 0°51'02 min. Earth dist. -5321 Jul 06 j 15:31 2°**∡**33'13 4.03405 AU minimum elong -5327 Jul 07 j 21:48 3°**Ⅲ**26′24 -5321 Jul 26 j 17:44 30°RM 0°51'19 max. Earth dist. -5327 Jul 06 j 19:27 3°**I**11′54 6.37070 AU -5321 Sep 03 j 19:36 27°M33'57 direct

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 8 Attention, astronomical year style is used: The year -5321 in astronomical counting style is the year 5322 BCE in historical counting style.

Attention, astronom		-	in astronomical cou		5322 BCE in historical of		
	-5321 Oct 12 j 09:25	0° ∡ ¹		conjunction	-5315 Jul 12 j 08:26	7° Ⅱ 53'17	
evening set	-5320 Jan 05 j 23:14	16° ∡ ¹43'11		minimum elong	-5315 Jul 12 j 08:23	7° Ⅱ 53'15	0°56'30
				morning rise	-5315 Jul 25 j 06:51		
conjunction	-5320 Jan 19 j 06:32		-1°-8'00	retrograde	-5315 Nov 22 j 14:24		
minimum elong	-5320 Jan 19 j 06:28	19° ∡ 52'19 −	1°08'19	opposition	-5314 Jan 21 j 20:41		1°44'20
max. Earth dist.	-5320 Jan 20 j 16:39	20° ∡ 12'35	6.02578 AU	min. Earth dist.	-5314 Jan 22 j 20:40		4.38035 AU
morning rise	-5320 Feb 01 j 17:24	23° ∡ 03'19		direct	-5314 Mar 25 j 10:34		
	-5320 Mar 03 j 04:41	0° ろ			-5314 Jul 03 j 09:36	0°€	
retrograde	-5320 Jun 12 j 15:08	13° ට 16'04		evening set	-5314 Jul 30 j 19:25	5°950'27	
min. Earth dist.	-5320 Aug 10 j 11:03	8°る20'28	4.03529 AU	max. Earth dist.	-5314 Aug 10 j 21:38	8° © 17'36	6.37007 AU
opposition	-5320 Aug 11 j 14:03	8°311'18	-2°-1'-13			00000004	1000110
direct	-5320 Oct 08 j 14:31	3° ට 15'18		conjunction	-5314 Aug 12 j 12:21	8°939'04	
evening set	-5319 Feb 10 j 21:00	22° 6 29'00		minimum elong	-5314 Aug 12 j 12:19	8°539'03	1°22'37
	5010 5 1 04:11 00	250-72002	10.051.45	morning rise	-5314 Aug 25 j 02:34		
conjunction	-5319 Feb 24 j 11:02			retrograde	-5314 Dec 24 j 05:35		2007152
minimum elong	-5319 Feb 24 j 11:02		1°26'03	opposition	-5313 Feb 23 j 00:15		2°06'53
max. Earth dist.	-5319 Feb 26 j 06:31		6.05/44 AU	min. Earth dist.	-5313 Feb 24 j 04:28		4.34922 AU
morning rise	-5319 Mar 10 j 03:23	28° る 51'12		direct	1 3	18°5549'44	
	-5319 Mar 15 j 02:23	0° ≈			-5313 Jul 30 j 00:26	0°N	
	-5319 May 30 j 15:28	15° ≈		evening set	-5313 Aug 30 j 21:08	6° £ 50'46	6 21 426 ATT
retrograde	-5319 Jul 18 j 06:25	18°≈36'54		max. Earth dist.	-5313 Sep 10 j 19:58	9° Ω 18′25	6.31436 AU
•.•	-5319 Sep 04 j 20:03	15°R≈	20.21.56	. ,.	5313 G 13 : 00 11	00 00004	1025104
opposition	-5319 Sep 15 j 17:19	13°≈32'00		conjunction	-5313 Sep 12 j 09:11	9° £ 39′24	1°25'04
min. Earth dist.	-5319 Sep 14 j 16:09	13°≈40'36	4.09466 AU	minimum elong	-5313 Sep 12 j 09:12	9° £ 39′25	1°25'19
direct	-5319 Nov 13 j 04:27	8°≈32'39		morning rise	-5313 Sep 24 j 19:40		
. ,	-5318 Jan 18 j 06:04	15° ≈			-5313 Oct 06 j 06:24		
evening set	-5318 Mar 19 j 17:37			. 1	-5312 Jan 13 j 16:06	0° M)	
	-5318 Mar 30 j 07:35	0°) €		retrograde	-5312 Jan 26 j 04:26	0° m/ 14'33	
. ,.	5310 4 03:11 43	001/42/25	10 111 56	•,•	-5312 Feb 07 j 16:47		1052100
conjunction	-5318 Apr 02 j 11:42		-1°-11'-56	opposition	-5312 Mar 27 j 07:30		1°53'00
minimum elong	-5318 Apr 02 j 11:46	0°) 43′38	1°12'06	min. Earth dist.	-5312 Mar 28 j 08:24		4.27233 AU
max. Earth dist.	-5318 Apr 03 j 22:49		6.13908 AU	direct	-5312 May 28 j 04:06		
morning rise	-5318 Apr 16 j 06:23	3°¥52′25			-5312 Aug 21 j 04:33	0°M) 0°M>2012.5	
retrograde	-5318 Aug 21 j 01:36	22°) 45'39	10 211 21	evening set	-5312 Sep 30 j 06:52	8° m 39'35	
opposition	-5318 Oct 19 j 08:59	17°) 43'04 17°) 48'44	-1°-21'-31		5212 0-4 12 : 10.15	110 m, 22107	1002121
min. Earth dist.	-5318 Oct 18 j 16:20	1/° X 4844 12° X 40'49	4.18956 AU	conjunction	-5312 Oct 12 j 19:15		1°02'31
direct	-5318 Dec 17 j 20:28	12° π 4049		minimum elong max. Earth dist.	-5312 Oct 12 j 19:19		1°02'38
	-5317 Apr 18 j 08:47	0° γ 1° Υ 21'26			-5312 Oct 11 j 15:36		6.22280 AU
evening set	-5317 Apr 24 j 11:46	1 1 21 20		morning rise	-5312 Oct 25 j 08:09		
agniumation	5217 May 00 : 05:00	4° Ƴ 25'39	00 221 52	retrograde	-5311 Jan 14 j 15:28	0° ഫ 3° ഫ 00'41	
conjunction	-5317 May 08 j 05:09	4 1 23 39 4° Υ 25'40		retrograde	-5311 Feb 28 j 19:22		
minimum elong max. Earth dist.	-5317 May 08 j 05:12	4° Υ 33'34	0°33'54 6.24041 AU	ampagitian	-5311 Apr 15 j 17:09 -5311 May 01 j 00:16		1°03'11
	-5317 May 08 j 19:18 -5317 May 21 j 21:03	4 1 33 34 7° Υ 28'55	0.24041 AU	opposition min. Earth dist.	-5311 May 01 j 00.16	-	4.17142 AU
morning rise	• •	$7 \cdot 12833$ $25^{\circ} \Upsilon 27'24$		direct		-	4.17142 AU
retrograde	-5317 Sep 22 j 08:31 -5317 Nov 20 j 17:41	$20^{\circ}\Upsilon 28'34$	0°-15'-36	direct	-5311 Jun 30 j 16:10	23° Mp 11′20 0° <u>₽</u>	
opposition min. Earth dist.	-5317 Nov 20 j 17.41 -5317 Nov 20 j 16:06	20 γ 28 34 20° γ 29'06	4.28722 AU	evening set	-5311 Sep 07 j 12:46 -5311 Nov 01 j 19:41		
direct	-5316 Jan 20 j 13:27	15° Υ 24'49	4.20/22 AU	evening set	-3311 NOV 01 J 19.41	11 ==43.23	
asc. node	-5316 Feb 16 j 06:15	16° Υ 30'23		conjunction	-5311 Nov 14 j 13:18	1.4° Ω .4.4'23	0°19'17
asc. node	-5316 May 10 j 10:11	0° 8		minimum elong	-5311 Nov 14 j 13:18		0°19'17
evening set	-5316 May 27 j 15:27	3° 8 43'05		max. Earth dist.	,	14° ⊆ 44′24 14° ⊆ 40'41	6.12234 AU
evening set	-3310 May 27 j 13.27	J O 43 03		morning rise	-5311 Nov 14 j 00:37		0.12254 AU
conjunction	-5316 Jun 10 j 02:45	6° 8 41'12	0°13'46	morning risc	-5311 Nov 27 j 08:40 -5310 Jan 23 j 22:01	0°M₁	
minimum elong	-5316 Jun 10 j 02:44	6° 8 41'11		retrograde	-5310 Apr 06 j 00:13	7°ML12'56	
behind sun begin	-5316 Jun 09 j 22:40	6° 8 38'57	0 13 33	desc. node	-5310 Apr 00 j 00:13	7°M07'23	
behind sun end	-5316 Jun 10 j 06:48	6° 8 43'25		opposition	-5310 Apr 13 j 13.47	2°M14'07	0°-10'-24
max. Earth dist.	-5316 Jun 09 j 18:16		6.32746 AU	min. Earth dist.	-5310 Jun 05 j 19:21	2°M15'19	4.07910 AU
morning rise	-5316 Jun 23 j 10:56	9° 8 37'41	3.32/70/110	Darui dist.	-5310 Jun 23 j 18:02		1.0,710 AU
	3	15° 8		direct	-5310 Aug 04 j 07:14		
retrograde	-5316 Oct 22 j 12:54	26° 8 57'12		anoct	-5310 Aug 04 j 07:14 -5310 Sep 14 j 01:00	0°M	
opposition	-5316 Oct 22 j 12.34 -5316 Dec 21 j 08:01	20°802'06	0°52'31		-5310 Sep 14 j 01.00		
min. Earth dist.	-5316 Dec 21 j 20:00	21° 8 58'10	4.35744 AU	evening set	-5310 Nov 30 j 13.13 -5310 Dec 06 j 02:04		
direct	-5316 Dec 21 j 20:00 -5315 Feb 21 j 05:37	16° 8 58'28	7.33 / TT AU	evening set	3310 DCC 00 J 02.04	10 1161034	
direct	-5315 Feb 21 j 05.57 -5315 Jun 05 j 17:20	0° Ⅱ		conjunction	-5310 Dec 19 j 02:54	19°m 22'24	0°-31'-55
evening set	-5315 Jun 29 j 06:38	0 Π 5°Π01'05		minimum elong	-5310 Dec 19 j 02:51		0°32'08
max. Earth dist.	-5315 Jul 29 J 06:38	7° Ⅱ 38'03	6.37497 AU	max. Earth dist.	-5310 Dec 19 j 19:23		6.04673 AU
max. Darui Uist.	5515 Jul 11 J 04.43	, 113003	0.31771 AU	morning rise	-5310 Dec 19 j 19.23 -5309 Jan 01 j 07:05		0.070/3 AU
				morning rist	2207 Jan 01 J 07.03	22 IIV23 43	

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5309 in astronomical counting style is the year 5310 BCE in historical counting style. -5309 Feb 03 i 07:31 0°*⊼* -5303 May 19 j 01:32 $\mathbb{I}^{\circ 0}$ -5309 May 13 j 00:41 12° ₹36'22 -5303 Jul 03 j 13:55 9°**Ⅱ**18'48 retrograde evening set opposition -5309 Jul 12 j 11:30 7°**₹**33'46 -1°-22'-40 -5303 Jul 15 j 08:05 11°**Д**53'32 6.38018 AU max. Earth dist. -5309 Jul 11 j 15:32 min. Earth dist. 7°**х** 40′26 4.02850 AU -5303 Jul 16 j 14:29 12°**Ⅲ**10'16 1°00'52 direct -5309 Sep 08 j 18:57 2°**₹**140'04 conjunction -5303 Jul 16 j 14:25 12°**Д**10'14 1°01'09 evening set -5308 Jan 11 j 02:39 21°**尽** 51'44 minimum elong -5303 Jul 29 j 11:33 15°**Д**00'03 morning rise -5308 Jan 24 j 11:09 25°**尽** 01'25 -1°-12'-19 conjunction -5303 Oct 21 j 02:36 0.ಎ -5308 Jan 24 j 11:06 25° ₹ 01'23 1°12'37 -5303 Nov 26 j 18:39 minimum elong retrograde 2°903'44 max. Earth dist. -5308 Jan 26 j 00:45 25°**尽**23'43 6.02492 AU -5302 Jan 02 j 18:19 30°Ŗ**Ⅱ** morning rise -5308 Feb 06 j 22:48 28°**∡**12'47 opposition -5302 Jan 26 j 03:13 27°**Ⅱ**11'32 1°49'14 -5302 Jan 27 j 04:06 27°**Ⅲ**03'32 -5308 Feb 14 j 14:13 0°ಕ min. Earth dist. 4.38044 AU -5308 Jun 17 j 19:02 18°₹24'39 -5302 Mar 29 j 16:58 22°**Д**09'35 retrograde direct opposition -5308 Aug 16 j 14:55 13°**る**19'46 -2°-4'-24 -5302 Jun 15 j 11:33 0ಂತಾ min. Earth dist. -5308 Aug 15 j 12:01 13°**る**28'55 4.03959 AU evening set -5302 Aug 03 j 23:52 10°906'14 8°**る**23'27 direct -5308 Oct 13 j 15:56 max. Earth dist. -5302 Aug 15 j 00:16 12°532'37 6.36480 AU evening set -5307 Feb 16 j 02:41 27°**3**36'45 -5307 Feb 26 j 08:34 conjunction -5302 Aug 16 j 15:52 12°554'38 1°24'07 minimum elong -5302 Aug 16 j 15:50 12°554'37 0°≈47'13 -1°-25'-39 conjunction -5307 Mar 01 j 17:26 morning rise -5302 Aug 29 i 05:14 15°5541'49 minimum elong -5307 Mar 01 j 17:27 0°≈47'14 1°25'57 -5302 Nov 13 j 17:02 $0^{\circ}\Omega$ max. Earth dist. -5307 Mar 03 j 13:23 1°≈12'52 6.06668 AU retrograde -5302 Dec 28 i 14:53 2°Ω59'56 morning rise -5307 Mar 15 i 10:27 3°≈58'42 -5301 Feb 12 i 09:25 30°R 55 -5307 May 05 i 12:19 15°≈ opposition -5301 Feb 27 i 09:59 28°508'29 2°07'12 retrograde -5307 Jul 23 j 02:33 23°≈37'44 min. Earth dist. -5301 Feb 28 j 15:31 27°559'06 4.33889 AU -5307 Sep 19 j 11:34 18°≈41'52 4.10819 AU -5301 Apr 30 j 21:51 23°509'06 min. Earth dist. direct -5307 Sep 20 j 13:19 18°≈33'04 -1°-59'-22 -5301 Jul 11 j 07:15 opposition $0^{\circ}\Omega$ -5307 Oct 19 j 15:29 15°R≈ -5301 Sep 04 j 02:15 $11^{\circ}\Omega$ 12'30 evening set -5307 Nov 18 j 02:25 13°≈33'20 -5301 Sep 14 j 23:30 13°**Ω**39'49 direct max Earth dist 6.29963 AU -5307 Dec 17 j 21:13 15°≈ -5301 Sep 16 j 14:02 14° Ω01'37 1°23'27 -5306 Mar 13 j 13:52 0°**₩** conjunction -5306 Mar 24 j 20:15 2°**)** 32'06 minimum elong evening set -5301 Sep 20 j 21:14 15°**Ω** -5306 Apr 07 j 14:27 5°**)**(40'10 -1°-7'-45 -5301 Sep 29 j 00:44 $16^{\circ}\Omega$ 50'19 conjunction morning rise -5306 Apr 07 j 14:31 5°\double 40'13 1°07'55 -5301 Dec 04 j 08:00 minimum elong 0° m 5°**¥**58'53 6.15594 AU -5306 Apr 08 j 23:15 -5300 Jan 30 j 19:34 max. Earth dist. retrograde 4° Mp 44'47 -5300 Mar 30 j 21:54 30°RΩ morning rise -5306 Apr 21 j 09:02 8° **★**48'12 retrograde -5306 Aug 25 j 16:29 27°**米**32'10 opposition -5300 Mar 31 j 22:45 $29^{\circ}\Omega$ 52'05 $1^{\circ}48'13$ -5306 Oct 23 j 23:22 22° **∺** 30'02 -1°-13'-14 min. Earth dist. -5300 Apr 01 j 22:26 29°**Ω**44'33 4.25415 AU opposition min. Earth dist. -5306 Oct 23 j 09:05 22° **★** 34'53 4.20789 AU direct -5300 Jun 01 j 14:55 24°**Q**55'37 -5306 Dec 22 j 16:53 17°**∺**27'29 -5300 Jul 31 j 06:11 0° M direct -5305 Apr 01 j 06:35 $0^{\circ}\Upsilon$ -5300 Oct 04 j 16:00 13° Mp 14'15 evening set -5305 Apr 29 j 07:51 6°Y03'06 max. Earth dist. -5300 Oct 16 j 04:44 15° m 53'46 6.20285 AU evening set -5305 May 13 j 00:42 9°Υ06'18 0°-27'-30 -5300 Oct 17 j 05:07 16° Mg 07'52 0°57'35 conjunction conjunction 9°Υ06'19 0°27'29 minimum elong -5305 May 13 i 00:44 minimum elong -5300 Oct 17 j 05:11 16° m 07'54 0°57'42 max. Earth dist. -5305 May 13 j 13:00 9°Υ13'10 6.25885 AU morning rise -5300 Oct 29 j 18:40 19° m 01'57 morning rise -5305 May 26 j 15:36 12° Υ 08'23 -5300 Dec 20 i 09:15 0∘**⊽** retrograde -5305 Sep 26 i 15:15 29° Υ 58'30 retrograde -5299 Mar 05 i 18:52 7°**-**47'12 -5305 Nov 25 j 02:44 25° Υ'00'13 0°-5'-54 -5299 May 05 i 22:22 2°**2**51'40 0°54'00 opposition opposition min. Earth dist. -5305 Nov 25 j 02:16 25° Υ 00'22 4.30421 AU min. Earth dist. -5299 May 06 j 09:34 2°**2**48'05 4.15115 AU asc. node -5305 Dec 28 j 06:57 21° Υ 08'40 -5299 May 29 j 17:36 30°R M direct -5304 Jan 25 j 02:06 19° Υ 56'23 -5299 Jul 05 j 09:37 27° m 57'42 direct -5304 Apr 22 j 23:27 0°8 -5299 Aug 10 j 12:48 0∘**⊽** -5304 Jun 01 j 04:37 8°**8**10'14 evening set -5299 Nov 06 j 12:01 16°**♀**37'01 evening set -5299 Nov 19 j 06:32 19°**♀**37'17 0°12'15 -5304 Jun 14 j 14:32 11°**8**07'12 0°20'08 conjunction conjunction -5304 Jun 14 j 14:30 11°**8**07'11 0°20'19 -5299 Nov 19 j 06:33 19°**△**37'17 minimum elong minimum elong 0°12'09 -5304 Jun 14 j 01:54 11°**8**00'15 6.34157 AU -5299 Nov 19 j 01:01 19°**♀**34'03 max. Earth dist. behind sun begin -5304 Jun 27 j 21:26 14°**8**02'34 -5299 Nov 19 j 12:04 19°**≏**40'31 morning rise behind sun end -5304 Jul 02 j 06:42 15°**8** max. Earth dist. -5299 Nov 19 j 02:24 19°**2**34'51 6.10359 AU -5304 Sep 28 j 05:50 $0^{\circ}\Pi$ morning rise -5299 Dec 02 j 03:26 22°**2**38'54 retrograde -5304 Oct 26 j 18:37 1°**Ⅲ**17′02 -5298 Jan 03 j 17:25 0°M -5304 Nov 24 j 05:21 30°₹**४** desc. node -5298 Feb 21 j 18:28 8°M47'34

retrograde

opposition

min. Earth dist.

-5298 Apr 11 j 04:35 12°ML16'05

7°**IL**16'39

0°-21'-20

7°ML19'04 4.06372 AU

-5298 Jun 11 j 02:14

-5298 Jun 10 j 18:52

1°00'47

4.36768 AU

opposition

direct

min. Earth dist.

-5304 Dec 25 j 14:25 26°**8**22'23

-5304 Dec 26 j 05:30 26°**8**17'28

-5303 Feb 25 j 16:18 21°**8**18'50

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5298 in astronomical counting style is the year 5299 BCE in historical counting style. direct -5298 Aug 09 j 05:10 2°M23'43 conjunction -5298 Nov 13 j 05:47 15°M -5292 Jun 19 j 03:56 15°**8**37'03 0°26'44 minimum elong 6.35088 AU -5298 Dec 11 j 02:27 21°M23'56 -5292 Jun 18 j 13:17 15°**8**28'59 max. Earth dist. evening set -5292 Jul 02 j 09:23 18°**8**31'29 morning rise -5292 Aug 29 j 04:42 conjunction -5298 Dec 24 j 04:35 24° ML30'26 0°-38'-44 Π $^{\circ}0$ -5298 Dec 24 j 04:32 24°M30'24 -5292 Oct 31 j 01:28 5°**Ⅱ**42'45 minimum elong 0°38'59 retrograde -5298 Dec 25 j 02:28 24°M-43'27 max. Earth dist. 6.03614 AU opposition -5292 Dec 29 j 23:46 0°**Ⅱ**48'34 1°09'00 morning rise -5297 Jan 06 j 09:50 27° ML 38'42 min. Earth dist. -5292 Dec 30 j 15:53 0°**Ц**43'19 4.37308 AU -5297 Jan 16 j 11:08 0°**∡**™ -5291 Jan 05 j 05:30 30°**₹** retrograde -5297 May 18 j 08:39 17°**х** 49'34 direct -5291 Mar 02 j 02:57 25°**8**45'13 opposition -5297 Jul 17 j 16:21 12°**∡** 46'26 -1°-31'-3 -5291 Apr 26 j 14:29 $\Pi^{\circ}0$ min. Earth dist. -5297 Jul 16 j 19:02 12°**х** 53'35 4.02396 AU -5291 Jul 08 j 00:33 evening set 13°**Ⅱ**44′07 direct -5297 Sep 13 j 22:09 7°**∡** 52′26 evening set -5296 Jan 16 j 08:44 27°**尽** 05'45 conjunction -5291 Jul 20 j 23:38 16°**Д**34'57 1°05'22 -5296 Jan 28 j 15:31 0°궁 minimum elong -5291 Jul 20 j 23:35 16°**Ⅱ**34'55 1°05'38 max. Earth dist. -5291 Jul 19 j 14:17 16°**Ⅱ**16'35 6.38114 AU conjunction -5296 Jan 29 j 18:09 0°**ට**15'46 -1°-16'-6 morning rise -5291 Aug 02 j 19:32 19°**Ⅲ**24'12 minimum elong -5296 Jan 29 j 18:06 0°る15'44 1°16'24 -5291 Sep 24 j 11:07 max. Earth dist. -5296 Jan 31 j 10:11 0°る39'28 6.02640 AU retrograde -5291 Dec 01 j 05:25 6°9528'36 morning rise -5296 Feb 12 j 06:51 3°**る**27'26 opposition -5290 Jan 30 j 14:14 1°936'42 1°53'47 retrograde -5296 Jun 22 j 21:24 23°る36'31 min. Earth dist. -5290 Jan 31 j 17:21 1°528'00 4.37707 AU opposition -5296 Aug 21 i 16:42 18°₹31'25 -2°-6'-35 -5290 Feb 12 i 09:10 30°R **II** min. Earth dist. -5296 Aug 20 j 12:07 18°る41'09 4.04698 AU direct -5290 Apr 03 i 05:33 26° **II** 35'04 direct -5296 Oct 18 j 17:39 13°る34'35 -5290 May 22 j 14:13 0ಂತಾ -5295 Feb 09 j 07:50 evening set -5290 Aug 08 j 08:34 14°532'31 0°≈ -5295 Feb 21 j 09:14 2°≈46'01 max. Earth dist. -5290 Aug 19 j 07:17 16°558'18 6.35722 AU evening set -5295 Mar 07 j 00:35 5°≈56'12 -1°-24'-54 -5290 Aug 20 j 23:47 17°520'51 1°25'32 conjunction conjunction -5295 Mar 07 j 00:37 -5290 Aug 20 j 23:46 17°520'51 5°≈56'13 1°25'10 minimum elong 1°25'50 minimum elong -5295 Mar 08 j 19:41 -5290 Sep 02 j 12:27 20°508'04 max. Earth dist. 6°≈21'17 6.07879 AU morning rise -5295 Mar 20 j 18:03 -5290 Oct 20 j 08:58 0°**Ω** 9°≈07'16 morning rise 7°**£**30′34 -5289 Jan 02 j 03:54 -5295 Apr 15 j 21:39 15°≈ retrograde -5289 Mar 04 j 00:53 retrograde -5295 Jul 27 j 23:36 28°≈38'30 2°Ω39'05 2°06'49 opposition -5295 Sep 24 j 09:27 23°≈42'13 4.12328 AU min. Earth dist. -5289 Mar 05 j 05:28 2°**Ω**29'59 4.32777 AU min. Earth dist. -5295 Sep 25 j 09:30 23°≈33'59 -5289 Mar 26 j 01:31 30°Rூ opposition -1°-54'-54 -5295 Nov 23 j 03:21 18°≈33'43 -5289 May 05 j 09:30 27°540'09 direct direct -5289 Jun 14 j 11:43 0°**Ω** -5294 Feb 23 j 15:48 0°**)**€ evening set -5294 Mar 29 j 22:46 7°**¥**28'31 -5289 Sep 05 j 02:04 15°**Ω** evening set -5289 Sep 08 j 11:50 15°**Ω**45'53 conjunction -5294 Apr 12 j 17:11 10°**)** 35'55 -1°-3'-4 max. Earth dist. -5289 Sep 19 j 11:10 $18^{\circ}\Omega$ 14'52 6.28601 AU -5294 Apr 12 j 17:15 10° **★** 35'58 1°03'13 minimum elong max. Earth dist. -5294 Apr 14 j 00:50 10° **¥** 53'54 -5289 Sep 20 j 23:31 $18^{\circ}\Omega$ 35'30 $1^{\circ}21'16$ 6.17275 AU conjunction -5294 Apr 26 j 11:25 13°**)** 43'05 -5289 Sep 20 j 23:33 18°**Ω**35'32 morning rise minimum elong -5294 Jul 23 j 00:26 $0^{\circ}\Upsilon$ -5289 Oct 03 j 10:13 21°**Ω**24'49 morning rise -5294 Aug 30 j 06:03 2°Y17'59 -5289 Nov 12 j 12:53 retrograde -5294 Oct 07 i 05:37 30°R € retrograde -5288 Feb 04 i 16:24 9° m 26'21 opposition -5294 Oct 28 i 13:36 27° ¥ 16'23 -1°-4'-29 opposition -5288 Apr 05 j 19:12 4° mp 33'27 1°42'30 min. Earth dist. -5294 Oct 28 i 00:32 27° \(\)20'48 4.22464 AU min. Earth dist. -5288 Apr 06 j 18:16 4° m 26'06 4.23886 AU direct -5294 Dec 27 i 10:36 22° ★ 13'34 -5288 May 21 j 18:02 30°RΩ -5293 Mar 12 j 20:54 $0^{\circ}\Upsilon$ direct -5288 Jun 06 j 08:35 $29^{\circ}\Omega$ 37'28 -5293 May 04 j 04:30 10°**Υ**45'05 -5288 Jun 21 j 21:16 evening set -5288 Oct 09 j 05:19 17° m 59'16 evening set -5293 May 17 j 20:29 13°**Υ**'47'19 0°-20'-53 conjunction minimum elong -5293 May 17 j 20:31 13°**Y**47'20 0°20'52 conjunction -5288 Oct 21 j 18:56 20° m 53'47 0°52'07 max. Earth dist. -5293 May 18 j 03:43 13°**Y**51'21 6.27426 AU minimum elong -5288 Oct 21 j 19:00 20° m 53'49 0°52'11 morning rise -5293 May 31 j 10:36 16°**Y**48'25 max. Earth dist. -5288 Oct 20 j 20:17 20° m 40'39 6.18751 AU -5293 Aug 06 j 23:04 0° 8 morning rise -5288 Nov 03 j 09:27 23° m 48'56 -5293 Oct 01 j 01:26 4°**8**31'41 -5288 Dec 01 j 00:29 retrograde 0∘**⊽** -5293 Nov 07 j 08:23 2°**8**20'28 -5287 Mar 10 j 19:27 12°**♀**42'00 asc. node retrograde -5293 Nov 26 j 06:56 30°R**Y** opposition -5287 May 10 j 23:32 7°**£**46'00 0°44'07 -5293 Nov 29 j 13:24 29°**Υ**33'56 0°03'57 opposition min. Earth dist. -5287 May 11 j 07:08 7°**£**43'34 4.13712 AU min. Earth dist. -5293 Nov 29 j 16:06 29°**Υ**33'03 4.31704 AU direct -5287 Jul 10 j 05:28 2°**£**52'21 direct -5292 Jan 29 j 17:50 24°**Υ**'30'03 evening set -5287 Nov 11 j 06:54 21°**△**34'45 -5292 Apr 01 j 22:12 0°8 evening set -5292 Jun 05 j 19:08 12°**8**40'57 conjunction -5287 Nov 24 j 02:30 24°**♀**35'57 0°05'00 -5292 Jun 16 j 08:39 15°**႘** -5287 Nov 24 j 02:30 24°**△**35'56 0°04'54 minimum elong

behind sun begin

-5287 Nov 23 j 18:38 24°**♀**31'19

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5287 in astronomical counting style is the year 5288 BCE in historical counting style. behind sun end -5287 Nov 24 i 10:22 24° **2**40'34 behind sun end -5281 May 22 j 16:53 18°**Υ**24'13 6.09243 AU max. Earth dist. -5287 Nov 24 j 03:29 24°**2**36'30 -5281 May 22 j 18:06 18°**Υ**24'54 max Earth dist 6.28530 AU -5287 Dec 07 j 00:24 27° **△**38'32 -5281 Jun 05 j 02:14 21° Υ 22'25 morning rise morning rise -5287 Dec 17 j 03:39 -5281 Jul 16 j 07:58 0° M 0°8 -5286 Jan 01 j 06:31 -5281 Sep 18 j 09:21 desc. node 3°M24'58 asc. node 8°**8**32'27 -5281 Oct 05 j 08:55 -5286 Mar 07 j 22:52 15°M retrograde 9°**8**00'36 -5281 Dec 03 j 22:09 retrograde -5286 Apr 16 j 11:18 17° ML21'30 opposition 4°**8**03'25 0°13'33 -5286 May 26 j 00:30 15°RM min. Earth dist. -5281 Dec 04 j 02:31 4°**8**01'58 4.32514 AU opposition -5286 Jun 16 j 06:05 12°M21'31 0°-32'-12 -5280 Jan 08 j 17:28 30°**₹**Υ 28°**Y**59'32 min. Earth dist. -5286 Jun 15 j 20:59 12°M24'31 4.05654 AU direct -5280 Feb 03 j 05:13 direct -5286 Aug 14 j 06:14 7°M28'36 -5280 Feb 29 j 01:52 0°8 -5286 Oct 24 j 10:25 15°M -5280 May 31 j 10:03 15°8 d -5286 Dec 16 j 02:51 26°M30'28 -5280 Jun 10 j 08:24 17°**8**09'05 evening set evening set conjunction -5286 Dec 29 j 05:54 29°M37'30 0°-45'-13 conjunction -5280 Jun 23 j 15:51 20°**8**04'29 0°32'41 minimum elong -5286 Dec 29 j 05:50 29°M37'27 0°45'29 minimum elong -5280 Jun 23 j 15:49 20°**8**04'27 0°32'54 max. Earth dist. -5286 Dec 30 j 06:47 29°M.52'17 6.03345 AU max. Earth dist. -5280 Jun 22 j 20:36 19°**8**53'53 6.35537 AU -5286 Dec 30 j 19:45 0°**∡**¹ morning rise -5280 Jul 06 j 20:09 22°**8**58'13 morning rise -5285 Jan 11 j 12:21 2°**х** 46′21 -5280 Aug 09 j 06:31 $\Pi^{\circ}0$ retrograde -5285 May 23 j 11:33 22° ₹ 58'07 retrograde -5280 Nov 04 j 10:24 10°**Д**07'58 opposition -5285 Jul 22 j 18:41 17° ₹ 54'34 -1°-38'-32 opposition -5279 Jan 03 j 09:02 5°**Ⅱ**14'09 1°16'44 min. Earth dist. -5285 Jul 21 j 18:53 18° ₹02'34 4.02636 AU min. Earth dist. -5279 Jan 04 i 03:42 5°**П**08'05 4.37400 AU direct -5285 Sep 18 j 21:44 13° ₹ 00'17 direct -5279 Mar 06 i 15:18 0°**Ⅱ**10'56 -5284 Jan 12 j 00:06 evening set -5279 Jul 12 j 10:46 18°**Д**09'59 0°₹ evening set -5284 Jan 21 j 12:11 2°る13'04 max. Earth dist. -5279 Jul 23 j 23:05 20°**Ⅱ**41'51 6.37834 AU -5284 Feb 03 j 22:25 5°₹23'07 -1°-19'-12 -5279 Jul 25 j 08:49 21°**Ⅲ**00'27 1°09'27 conjunction conjunction -5284 Feb 03 j 22:22 5°る23'05 1°19'31 minimum elong -5279 Jul 25 j 08:45 21°**Ⅲ**00'25 1°09'44 minimum elong -5284 Feb 05 j 15:18 5°₹47'16 -5279 Aug 07 j 03:25 23°**Ⅲ**49'18 max. Earth dist. 6.03329 AU morning rise -5284 Feb 17 j 11:49 8°**궁**34'44 -5279 Sep 05 j 05:56 morning rise 0ಂತಾ retrograde -5284 Jun 27 j 20:29 28°중39'16 -5279 Dec 05 j 14:39 10°\$55'36 retrograde -5284 Aug 25 j 10:26 23°정43'35 4.05757 AU -5278 Feb 04 j 02:14 6°503'50 min. Earth dist. 1°57'41 opposition -5278 Feb 05 j 04:59 -5284 Aug 26 j 14:20 23°₹34'04 -2°-7'-43 min. Earth dist. 5°955'16 4.37109 AU opposition -5284 Oct 23 j 18:00 18°₹36'41 -5278 Apr 07 j 16:20 1°**©**02'35 direct direct -5283 Jan 22 j 14:13 -5278 Aug 12 j 17:57 19°501'14 0°≈ evening set -5283 Feb 26 j 11:42 -5278 Aug 23 j 15:47 21°526'56 evening set 7°≈45'34 max. Earth dist. 6.34844 AU conjunction -5283 Mar 12 j 03:46 10°≈55'26 -1°-23'-33 conjunction -5278 Aug 25 j 08:16 21°549'33 1°26'26 minimum elong -5283 Mar 12 j 03:48 10°≈55'27 1°23'48 minimum elong -5278 Aug 25 j 08:15 21°549'33 1°26'43 max. Earth dist. -5283 Mar 13 j 22:53 11°≈20'25 6.09211 AU morning rise -5278 Sep 06 j 20:26 24°536'52 morning rise -5283 Mar 25 j 21:26 14°≈05'59 -5278 Oct 01 j 17:41 0°**Ω** -5283 Mar 29 j 19:40 15°≈ -5277 Jan 06 j 20:08 12° Ω 04'00 retrograde -5283 Jun 14 j 23:59 -5277 Mar 08 j 17:23 $7^{\circ}\Omega$ 12'25 $2^{\circ}05'37$ 0°**₩** opposition -5283 Aug 01 j 16:21 3°**)**€29'16 min. Earth dist. -5277 Mar 09 j 22:16 7°**Ω**03'15 4.31678 AU retrograde -5283 Sep 18 j 06:25 30°R≈ direct -5277 May 10 j 01:28 2°**Ω**13'53 -5283 Sep 29 i 02:20 28°≈32'54 4.13789 AU min. Earth dist. -5277 Aug 19 i 13:08 $15^{\circ}\Omega$ -5283 Sep 30 j 01:15 28°≈25'05 opposition -1°-49'-48 evening set -5277 Sep 12 j 22:13 $20^{\circ}\Omega$ 21'25 -5283 Nov 27 j 21:42 23°≈24'24 direct max. Earth dist. -5277 Sep 23 j 23:07 $22^{\circ}\Omega$ 51'43 6.27373 AU -5282 Feb 03 i 09:03 0°**)**€ -5282 Apr 03 j 21:16 12° **)** 15'46 conjunction -5277 Sep 25 j 09:55 23° Ω 11'31 1°18'33 evening set -5277 Sep 25 j 09:58 23° Ω 11'33 1°18'45 minimum elong -5282 Apr 17 j 15:32 15° **)** €22'32 0°-58'-8 -5277 Oct 07 j 20:51 $26^{\circ}\Omega$ 01'26 conjunction morning rise -5282 Apr 17 j 15:36 15°**¥**22'35 -5277 Oct 25 j 17:19 minimum elong 0°58'14 0° m max. Earth dist. -5282 Apr 18 j 18:16 15° **€** 37'41 6.18737 AU retrograde -5276 Feb 09 j 11:15 14° mp 09'14 -5276 Apr 10 j 16:08 morning rise -5282 May 01 j 09:40 18° **★** 28'59 opposition 9° m 15'56 1°36'03 $0^{\circ}\Upsilon$ -5282 Jun 26 j 03:59 min. Earth dist. -5276 Apr 11 j 12:17 9°**m**09'31 4.22611 AU retrograde -5282 Sep 03 j 16:43 6°Y56'12 direct -5276 Jun 11 j 00:50 4° Mp 20'18 -5282 Nov 02 j 00:47 1°Y55'03 0°-55'-36 -5276 Oct 13 j 18:48 22° m 44'09 opposition evening set -5282 Nov 01 j 14:24 1°**Υ**′58'34 4.23787 AU min. Earth dist. -5282 Nov 16 j 14:49 30°R ₩ -5276 Oct 26 j 09:01 25° m/39'27 conjunction 0°46'17 direct -5281 Jan 01 j 02:26 26° **★**51'57 minimum elong -5276 Oct 26 j 09:05 25° m 39'29 0°46'20 -5281 Feb 15 j 23:00 $0^{\circ}\Upsilon$ max. Earth dist. -5276 Oct 25 j 14:07 25° m 28'27 6.17538 AU evening set -5281 May 08 j 21:47 15°**Υ**20'41 morning rise -5276 Nov 08 j 00:18 28° m 35'28 -5276 Nov 14 j 03:18 0∘**⊽** conjunction -5281 May 22 j 13:14 18° **Y** 22'12 0° -14'-20 retrograde -5275 Mar 15 j 21:54 17°**△**35'07 -5281 May 22 j 13:15 18°**Υ**22'13 0°14'17 -5275 May 16 j 00:25 12°**2**38'34 minimum elong opposition

min. Earth dist.

-5275 May 16 j 06:32 12°**2**36'36 4.12625 AU

-5281 May 22 j 09:37 18°**Υ**20'12

behind sun begin

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5275 in astronomical counting style is the year 5276 BCE in historical counting style. direct -5275 Jul 15 i 03:16 7°**2**45'05 direct -5269 Jan 05 i 18:07 1°Y32'18 -5275 Nov 10 j 22:33 25° **△**17'50 evening set -5269 May 13 j 16:21 19°**Υ**58'58 desc node -5275 Nov 16 j 00:59 26°**£**29'26 evening set -5269 May 27 j 06:55 22°**Y**59'47 conjunction 0°-7'-37 -5269 May 27 j 06:55 22°**Y**59'47 0°07'32 conjunction -5275 Nov 28 j 21:28 29°**£**31'24 0°-2'-22 minimum elong -5275 Nov 28 j 21:29 29°**೨**31'25 -5269 May 26 j 23:26 22°**Y**55'39 minimum elong 0°02'30 behind sun begin -5275 Nov 28 j 13:24 29° **2**26'39 -5269 May 27 j 14:24 23°**Y**03'55 behind sun begin behind sun end -5275 Nov 29 j 05:34 29°**△**36'10 -5269 May 27 j 07:13 22°**Υ**59'57 behind sun end max. Earth dist. 6.29457 AU -5269 Jun 09 j 19:05 25°**Υ**59'15 max. Earth dist. -5275 Nov 29 j 01:24 29°**△**33'41 6.08374 AU morning rise -5275 Nov 30 j 21:51 0° M -5269 Jun 28 j 07:27 0°8 morning rise -5275 Dec 11 j 20:37 2°M34'55 asc. node -5269 Jul 29 j 05:19 6°**8**07'23 -5269 Oct 09 j 18:24 13°833'06 -5274 Feb 07 j 18:29 15°M retrograde retrograde -5274 Apr 21 j 13:35 22°M22'36 opposition -5269 Dec 08 j 08:40 8°**8**36'26 0°23'15 opposition -5274 Jun 21 j 08:07 17°M22'05 0°-42'-43 min. Earth dist. -5269 Dec 08 j 15:13 8°**8**34'16 4.33208 AU min. Earth dist. -5274 Jun 20 j 20:04 17° M 26'04 4.05103 AU direct -5268 Feb 07 j 19:29 3°**8**32'35 -5274 Jul 10 j 02:59 15°RM -5268 May 14 j 05:04 15°**8** direct -5274 Aug 19 j 03:41 12°M29'08 evening set -5268 Jun 14 j 22:38 21°**8**41'01 -5274 Sep 27 j 14:38 15°M max. Earth dist. -5268 Jun 27 j 08:45 24°**8**24'37 6.35959 AU -5274 Dec 14 j 12:55 0°×7 evening set -5274 Dec 21 j 02:10 1°**х** 32′28 conjunction -5268 Jun 28 j 04:58 24°**8**35'45 minimum elong -5268 Jun 28 j 04:55 24°**8**35'43 -5268 Jul 11 j 07:47 27°**8**28'44 conjunction -5273 Jan 03 i 06:11 4°**₹**39'59 0°-51'-18 morning rise minimum elong -5273 Jan 03 i 06:07 4°**∡**³39'57 0°51'34 -5268 Jul 22 i 23:00 $\Pi^{\circ}0$ max. Earth dist. -5273 Jan 04 i 09:29 4°**х** 56′13 6.03140 AU retrograde -5268 Nov 08 j 19:13 14°**Д**37'12 morning rise -5273 Jan 16 j 13:37 7°**∡**¹49'20 opposition -5267 Jan 07 j 20:07 9°**Ⅱ**43'50 1°24'11 -5273 May 28 j 13:44 28° ₹01'53 -5267 Jan 08 j 15:31 9°**I**37'33 4.37554 AU retrograde min. Earth dist. opposition -5273 Jul 27 j 19:05 22° ₹ 57'59 -1°-45'-13 -5267 Mar 11 j 03:53 4°**Ⅱ**40'57 direct -5273 Jul 26 j 18:46 23°**尽** 06'10 4.02812 AU evening set -5267 Jul 16 j 22:12 22°**∏**39'41 min. Earth dist. -5273 Sep 23 j 22:12 18° ₹03'19 max. Earth dist. -5267 Jul 28 j 06:58 25°**Д**09'50 6.37704 AU direct -5273 Dec 25 j 13:30 0°₹ -5272 Jan 26 j 14:31 -5267 Jul 29 j 18:49 25°**Ⅲ**29'37 1°13'12 7°**る**16'14 conjunction evening set minimum elong -5267 Jul 29 j 18:46 25°**Ⅲ**29'36 1°13'30 -5272 Feb 09 j 01:45 10°**-5**26'26 -1°-21'-43 -5267 Aug 11 j 12:26 28°**Ⅲ**18'05 conjunction morning rise -5272 Feb 09 j 01:43 10°₹26'25 1°22'02 -5267 Aug 19 j 07:09 0°€ minimum elong -5272 Feb 10 j 20:45 10°중51'46 6.03862 AU -5267 Dec 10 j 03:04 15°\$25'52 max. Earth dist. retrograde -5272 Feb 22 j 15:51 13°**궁**38'05 -5266 Feb 08 j 15:42 10°534'15 2°00'57 morning rise opposition -5272 May 14 j 20:14 0°≈ -5266 Feb 09 j 19:23 10°525'24 4.36734 AU min. Earth dist. retrograde -5272 Jul 02 j 19:15 3°≈38'40 direct -5266 Apr 12 j 07:03 5°**©**33'21 -5272 Aug 20 j 17:40 30°R♂ evening set -5266 Aug 17 j 03:36 23°532'12 min. Earth dist. -5272 Aug 30 j 07:16 28°정42'54 4.06605 AU max. Earth dist. -5266 Aug 28 j 02:34 25°558'47 6.34259 AU opposition -5272 Aug 31 j 10:51 28°**ට**33'30 -2°-7'-58 -5272 Oct 28 j 15:21 23°₹35'43 -5266 Aug 29 j 17:21 26°\$20'29 1°26'52 direct conjunction -5271 Jan 01 j 23:21 -5266 Aug 29 j 17:21 26°520'29 minimum elong -5271 Mar 03 j 13:46 12°≈43'02 -5266 Sep 11 j 04:50 29°507'47 evening set morning rise -5271 Mar 13 j 11:11 15°≈ -5266 Sep 15 j 02:58 0°**Ω** -5266 Dec 09 i 13:12 $15^{\circ}\Omega$ -5265 Jan 11 j 09:40 $16^{\circ}\Omega$ 38'34 conjunction -5271 Mar 17 i 06:15 15°≈52'39 -1°-21'-37 retrograde minimum elong -5271 Mar 17 i 06:18 15°≈52'41 1°21'52 -5265 Feb 13 i 13:56 15°RΩ -5271 Mar 18 j 22:19 16°≈15'49 6.10281 AU max. Earth dist. opposition -5265 Mar 13 j 09:59 $11^{\circ}\Omega$ 46'51 $2^{\circ}03'39$ -5271 Mar 31 i 00:27 19°≈02'54 min. Earth dist. -5265 Mar 14 j 13:02 11°Ω38'16 4.30925 AU morning rise -5271 May 21 j 07:52 0°**₩** direct -5265 May 14 j 15:20 6°**Ω**48'46 -5271 Aug 06 j 08:06 8°¥19'27 -5265 Aug 01 j 01:17 15°**Ω** retrograde -5271 Oct 04 j 17:03 3°**¥**15'33 -1°-44'00 -5265 Sep 17 j 08:02 $24^{\circ}\Omega$ 56'47 opposition evening set min. Earth dist. -5271 Oct 03 j 19:35 3°**)** €22'53 4.14959 AU max. Earth dist. -5265 Sep 28 j 10:30 $27^{\circ}\Omega$ 28'19 6.26514 AU -5271 Oct 30 j 20:33 30°R≈ -5265 Sep 29 j 19:36 27° Ω 47'13 1° 15'22 direct -5271 Dec 02 j 16:46 28°≈14'27 conjunction -5270 Jan 04 j 22:23 0°**∀** minimum elong -5265 Sep 29 j 19:39 $27^{\circ}\Omega 47'15$ 1°15'33 -5270 Apr 08 j 20:04 17°**米** 03'31 -5265 Oct 09 j 12:34 evening set 0° m -5265 Oct 12 j 06:49 morning rise 0°My37'36 -5270 Apr 22 j 14:27 20°**米**09'49 0°-52'-47 -5264 Feb 14 j 07:38 18° m 50'35 conjunction retrograde -5264 Apr 15 j 12:19 13° m 56'53 minimum elong -5270 Apr 22 j 14:31 20°**米**09'51 0°52'52 opposition 1°29'02 max. Earth dist. -5270 Apr 23 j 15:13 20°**米**23'49 6.19940 AU min. Earth dist. -5264 Apr 16 j 07:31 13° m 50'45 4.21667 AU morning rise -5270 May 06 j 08:06 23°**米** 15'35 direct -5264 Jun 15 j 18:52 9° Mp 01'34 -5270 Jun 06 j 10:30 0° γ evening set -5264 Oct 18 j 06:49 27° m 26'21 retrograde -5270 Sep 08 j 05:09 11°**Υ**36'06 -5264 Oct 29 j 07:24 0∘**⊽** -5270 Nov 06 j 12:50 6°**Ƴ**35'33 0°-46'-19 opposition min. Earth dist. -5270 Nov 06 j 04:36 6°Υ38'19 4.24894 AU -5264 Oct 30 j 21:43 0°**£**22'19 0°40'15 conjunction

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5264 in astronomical counting style is the year 5265 BCE in historical counting style. -5264 Oct 30 j 21:46 0°**2**22'20 0°40'15 -5258 May 20 j 04:22 $0^{\circ}\Upsilon$ minimum elong -5264 Oct 30 j 05:26 0°**£**12'50 $-5258 \text{ Sep } 12 \text{ j } 16:03 \quad 16^{\circ} \Upsilon 15'19$ max. Earth dist. 6 16607 AU retrograde -5264 Nov 12 j 13:50 -5258 Nov 11 j 00:53 11°**Υ**15'14 3°**£**19'07 opposition 0°-36'-46 morning rise -5258 Nov 10 j 17:53 11°**Υ**17'35 4.25919 AU -5263 Mar 20 j 19:52 22°**♀**24'12 min. Earth dist. retrograde -5263 May 20 j 22:48 17°**2**27'08 0°23'39 -5257 Jan 10 j 09:48 6°**Ƴ**11'47 opposition direct min. Earth dist. -5257 May 18 j 10:32 24°**Υ**36'22 -5263 May 21 j 02:06 17°**£**26'04 4.11775 AU evening set direct -5263 Jul 19 j 20:40 12°**⊆**33'49 -5257 Jun 01 j 00:14 27°**Υ**36'26 desc. node -5263 Sep 21 j 14:30 18°**△**35'37 conjunction 0°00'-48 -5257 Jun 01 j 00:14 27°**Υ**36'26 0°00'42 -5263 Nov 15 j 01:16 0°M minimum elong -5257 May 31 j 15:59 27°**Y**31'53 evening set -5263 Nov 20 j 17:26 1°M19'38 behind sun begin behind sun end -5257 Jun 01 j 08:29 27°**Υ**40'59 -5263 Dec 03 j 14:48 -5257 May 31 j 22:29 27°**Υ**35'31 conjunction 4°M22'18 0°-9'-27 max. Earth dist. 6.30407 AU -5257 Jun 07 j 15:16 29°**Y**04'34 minimum elong -5263 Dec 03 j 14:47 4° M $_22'17$ 0°09'38 asc. node behind sun begin -5263 Dec 03 j 08:04 4°ML18'20 -5257 Jun 11 j 19:37 0°8 behind sun end -5263 Dec 03 j 21:30 4°M26'15 morning rise -5257 Jun 14 j 11:13 0°**8**35'02 max. Earth dist. -5263 Dec 03 j 21:08 4°M26'02 6.07676 AU -5257 Aug 30 j 08:56 15°**と** morning rise -5263 Dec 16 j 15:00 7°M26'34 retrograde -5257 Oct 14 j 04:04 18°**8**04'19 -5262 Jan 19 j 00:50 15° MJ -5257 Nov 28 j 06:58 15°R℃ retrograde -5262 Apr 26 j 14:11 27° ML18'23 opposition -5257 Dec 12 j 19:06 13°808'10 0°32'46 opposition -5262 Jun 26 j 07:19 22°ML17'18 0°-52'-44 min. Earth dist. -5257 Dec 13 j 03:33 13°**8**05'23 4.34005 AU min. Earth dist. -5262 Jun 25 j 18:03 22°M21'42 4.04617 AU direct -5256 Feb 12 j 09:59 8°**8**04'22 direct -5262 Aug 24 i 00:42 17°M24'09 -5256 Apr 24 i 14:23 15°8 -5262 Nov 27 j 17:21 0°×7 evening set -5256 Jun 19 j 12:21 26°810'55 evening set -5262 Dec 25 j 23:19 6°**₹**29'02 conjunction -5256 Jul 02 j 17:15 29°**8**04'50 0°44'34 -5261 Jan 08 j 04:27 9°**×**37'06 0°-56'-54 -5256 Jul 02 j 17:12 29°**8**04'48 0°44'48 conjunction minimum elong -5261 Jan 08 j 04:23 9°**x**⁷37'04 0°57'11 max. Earth dist. -5256 Jul 01 j 18:02 28°**8**52'04 6.36512 AU minimum elong -5261 Jan 09 j 10:41 9°**х** 55'04 6.02907 AU -5256 Jul 06 j 21:30 $0^{\circ}II$ max. Earth dist. -5261 Jan 21 j 12:50 12°**⊀**¹46'58 -5256 Jul 15 j 18:48 1°**耳**57′03 morning rise morning rise -5261 Apr 19 j 04:11 -5256 Nov 13 j 03:46 19°**Ⅲ**03'41 0°ನ retrograde -5261 Jun 02 j 14:33 opposition -5255 Jan 12 j 06:31 14°**Ⅲ**10'34 1°31'05 3°**る**00'15 retrograde -5255 Jan 13 j 03:14 14°**Д**03'52 4.37833 AU -5261 Jul 16 j 22:21 30°R ⊀ min. Earth dist. -5261 Aug 01 j 16:56 27°**尽** 56'05 -1°-51'-1 -5255 Mar 15 j 16:28 9°**Ⅲ**07'49 opposition direct -5261 Jul 31 j 16:09 28°**尽** 04'27 4.02887 AU -5255 Jul 21 j 08:03 27°**Ⅲ**05'37 min. Earth dist. evening set -5261 Sep 28 j 18:45 23° ₹ 01'04 -5255 Aug 01 j 16:05 29°**II**35'26 6.37653 AU direct max. Earth dist. -5261 Dec 05 j 18:05 0°る -5260 Jan 31 j 15:19 12°る14'43 -5255 Aug 03 j 03:36 29°**I**55'04 1°16'31 evening set conjunction minimum elong -5255 Aug 03 j 03:33 29°**Ⅲ**55'03 1°16'49 conjunction -5260 Feb 14 j 03:17 15°**3**25'07 -1°-23'-34 -5255 Aug 03 j 12:31 0ಂತ minimum elong -5260 Feb 14 j 03:15 15°**る**25'06 1°23'52 morning rise -5255 Aug 15 j 19:56 2°5643'03 max. Earth dist. -5260 Feb 15 j 20:58 15°**정**49'38 6.04212 AU retrograde -5255 Dec 14 j 12:50 19°952'11 -5260 Feb 27 j 18:18 18°る36'56 -5254 Feb 13 j 04:00 15°500'39 2°03'30 morning rise opposition -5260 Apr 20 j 05:59 min. Earth dist. -5254 Feb 14 j 07:49 14°951'47 4.36345 AU -5260 Jul 07 j 14:38 -5254 Apr 16 j 18:58 10°500'07 retrograde 8°≈34'13 direct -5260 Sep 04 j 02:02 3°≈38'25 4.07209 AU -5254 Aug 21 j 11:51 27°559'15 min. Earth dist. evening set opposition -5260 Sep 05 i 05:24 3°≈29'04 -2°-7'-18 -5254 Aug 30 j 12:03 $0^{\circ}\Omega$ -5260 Oct 03 j 15:56 30°Rる max. Earth dist. -5254 Sep 01 i 08:48 0°Ω25'05 6.33527 AU direct -5260 Nov 02 j 10:59 28°る30'46 -5260 Dec 02 j 11:20 0°**≈** conjunction -5254 Sep 03 i 00:48 0°Ω47'30 1°26'47 -5259 Feb 25 i 01:52 15°≈ minimum elong -5254 Sep 03 i 00:48 0°Ω47'30 1°27'04 -5259 Mar 08 j 14:53 17°≈37'36 -5254 Sep 15 j 12:01 3°**Ω**34'58 evening set morning rise -5254 Nov 10 j 18:53 15°**Ω** -5253 Jan $16\,\mathrm{j}\,01:19$ $21^\circ\Omega10'14$ -5259 Mar 22 j 08:08 20°≈47'09 -1°-19'-7 conjunction retrograde minimum elong -5259 Mar 22 j 08:11 20°≈47'11 1°19'20 opposition -5253 Mar 18 j 01:57 $16^{\circ}\Omega$ 18'20 $2^{\circ}01'00$ min. Earth dist. -5253 Mar 19 j 05:00 $16^{\circ}\Omega$ 09'45 4.29877 AU max. Earth dist. -5259 Mar 23 j 23:38 21°≈09'56 6.11115 AU morning rise -5259 Apr 05 j 02:28 23°≈57'07 -5253 Mar 28 j 11:26 15°RΩ -5259 May 02 j 06:42 0°**∀** direct -5253 May 19 j 05:33 11°**Ω**20'35 -5259 Aug 11 j 00:58 13°**米**07'38 -5253 Jul 08 j 16:03 15°**Ω** retrograde -5259 Oct 09 j 08:05 8°**¥**04'07 -1°-37'-33 -5253 Sep 21 j 17:18 29° **Ω** 30'23 opposition evening set -5259 Oct 08 j 12:36 8°**升**10'46 4.15928 AU min. Earth dist. -5253 Sep 23 j 21:26 0° m -5253 Oct 02 j 22:16 direct -5259 Dec 07 j 11:21 3°**)**€02'40 max. Earth dist. 2° Mp 03'45 6.25244 AU evening set -5258 Apr 13 j 18:38 21° **★** 50'02 conjunction -5253 Oct 04 j 05:11 2° m 21'26 1°11'46 conjunction -5258 Apr 27 j 12:52 24° **★**55'51 0°-47'-5 minimum elong -5253 Oct 04 j 05:15 2° Mp 21'28 1°11'55 morning rise minimum elong -5258 Apr 27 j 12:56 24° **★**55'53 0°47'10 -5253 Oct 16 j 16:41 5° My 12'31-5258 Apr 28 j 10:24 25° **米** 08'00 6.20981 AU -5252 Feb 19 j 03:14 23° m 32'16 max. Earth dist. retrograde

opposition

-5252 Apr 20 j 08:34 18° My 38'13 1°21'26

-5258 May 11 j 06:15 28° **₭** 01'03

morning rise

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5252 in astronomical counting style is the year 5253 BCE in historical counting style. min. Earth dist. -5252 Apr 21 i 01:44 18° m 32'44 4.20253 AU conjunction -5246 May 02 j 11:35 29°**)** €43'33 -5252 Jun 20 j 09:59 13° mp 43'16 minimum elong -5246 May 02 j 11:38 29° \(\mathbf{H}\)43'35 0°41'09 direct -5252 Oct 13 j 08:14 max. Earth dist. -5246 May 03 j 06:22 29° **)** 54'07 0∘ଫ 6.22818 AU -5252 Oct 22 j 20:13 -5246 May 03 j 16:51 $0^{\circ}\Upsilon$ 2° 211'03 evening set -5246 May 16 j 04:15 2°Y47'39 morning rise -5252 Nov 04 j 11:47 -5246 Sep 17 j 03:15 20°**Y**52'58 conjunction 5°**2**07'56 0°33'52 retrograde -5246 Nov 15 j 12:13 -5252 Nov 04 j 11:49 15°**Y**53′25 minimum elong 5°**Ω**07'58 0°33'53 opposition 0°-27'-7 -5246 Nov 15 j 07:54 max. Earth dist. -5252 Nov 03 j 21:20 4°**£**59'30 6.15173 AU min. Earth dist. 15°**Y**54'52 4.27721 AU 10°**Ƴ**49'48 morning rise -5252 Nov 17 j 04:59 8°**Ω**05'50 direct -5245 Jan 15 j 03:20 21°**Y**45'37 retrograde -5251 Mar 25 j 21:51 27°**£**18'34 asc. node -5245 Apr 17 j 23:59 29°**Y**09'28 opposition -5251 May 25 j 23:25 22°**₽**20'57 0°13'03 evening set -5245 May 23 j 02:31 -5245 May 26 j 22:28 min. Earth dist. -5251 May 26 j 00:47 22°**⊆**20'30 4.10418 AU 0°8 direct -5251 Jul 24 j 17:08 17°**£**27'45 desc. node -5251 Aug 01 j 11:21 17°**♀**33'44 conjunction -5245 Jun 05 j 15:08 2°**8**08'24 0°05'52 -5251 Oct 29 j 00:58 0°M minimum elong -5245 Jun 05 j 15:07 2°808'23 0°06'00 evening set -5251 Nov 25 j 12:51 6°M17'09 behind sun begin -5245 Jun 05 j 07:18 2°**8**04'05 behind sun end -5245 Jun 05 j 22:57 2°812'42 conjunction -5251 Dec 08 j 11:25 9°**™**20'48 0°-16'-39 max. Earth dist. -5245 Jun 05 j 10:23 2°**8**05'48 6.32030 AU minimum elong -5251 Dec 08 j 11:24 9°**™**20'48 0°16'51 morning rise -5245 Jun 19 j 00:50 5°**8**05'48 max. Earth dist. -5251 Dec 08 j 21:51 9°M26'59 6.06530 AU -5245 Aug 06 j 10:42 15°8 morning rise -5251 Dec 21 j 12:45 12°M26'07 retrograde -5245 Oct 18 j 08:52 22°828'39 -5250 Jan 01 i 12:38 15°M opposition -5245 Dec 17 i 02:42 17°\(\alpha \)32'55 0°41'45 -5250 Mar 23 i 02:51 0°×7 min. Earth dist. -5245 Dec 17 i 12:36 17°**8**29'40 4.35335 AU retrograde -5250 May 01 j 19:30 2°×23'36 -5244 Jan 06 j 11:28 15°R℃ -5250 Jun 10 j 11:46 30°RML direct -5244 Feb 16 j 20:55 12°**8**29'07 -5250 Jul 01 j 10:07 27°M22'07 -1°-2'-41 -5244 Mar 29 j 15:49 opposition 15°8 -5250 Jun 30 j 19:03 27°M27'07 -5244 Jun 21 j 10:48 min. Earth dist. 4.03820 AU 0°П -5250 Aug 29 j 00:05 22°M28'54 -5244 Jun 23 j 21:47 0°II32'05 direct evening set -5250 Nov 07 j 21:58 0° ₹ -5244 Jul 05 j 23:40 3°**Ⅱ**10′57 max. Earth dist. 6.37431 AU -5250 Dec 31 j 01:27 11° ₹36'42 evening set -5244 Jul 07 j 01:17 3°II25'02 0°49'54 conjunction -5249 Jan 13 j 07:28 14° **₹** 45'22 -1°-2'-16 minimum elong -5244 Jul 07 j 01:13 3°**Ⅲ**25′00 0°50'09 conjunction -5249 Jan 13 j 07:24 14°**х** 45'20 1°02'34 -5244 Jul 20 j 01:22 6°**Ц**16'17 minimum elong morning rise -5244 Nov 17 j 08:49 23°**Ц**20'25 -5249 Jan 14 j 14:53 15° ₹ 04'02 6.02508 AU max. Earth dist. retrograde -5249 Jan 26 j 17:04 17°**尽** 55'53 -5243 Jan 16 j 13:11 18°**Ⅲ**27'38 1°37'09 morning rise opposition -5249 Mar 23 j 05:22 -5243 Jan 17 j 12:09 18°**I**I 20'13 4.38281 AU 0°ಕ min. Earth dist. -5249 Jun 07 j 17:35 -5243 Mar 20 j 01:43 13°**Ⅲ**25'04 retrograde 8°**る**10'09 direct -5249 Aug 06 j 18:39 3°る05'44 -1°-56'-12 -5243 Jul 19 j 08:09 0ಂತಾ opposition min. Earth dist. -5249 Aug 05 j 16:14 3°る14'41 4.02967 AU evening set -5243 Jul 25 j 13:23 1°9521'27 -5249 Aug 31 j 14:55 30°R ✓ max. Earth dist. -5243 Aug 05 j 16:57 3°5548'59 6.37556 AU direct -5249 Oct 03 j 19:21 28°**尽** 10'21 -5249 Nov 05 j 23:03 0°る -5243 Aug 07 j 07:43 4°9510'26 1°19'16 conjunction -5248 Feb 05 j 20:54 17°**る**24'48 -5243 Aug 07 j 07:41 4°9510'25 evening set minimum elong 1°19'33 -5243 Aug 19 j 23:10 morning rise 6°958'02 -5248 Feb 19 j 09:56 20°♂35'22 -1°-24'-53 -5243 Dec 18 j 20:04 24°509'02 conjunction retrograde -5248 Feb 19 i 09:55 20°る35'21 1°25'10 minimum elong opposition -5242 Feb 17 i 12:27 19°517'31 2°05'17 max. Earth dist. -5248 Feb 21 i 05:57 21°る01'13 6.04787 AU min. Earth dist. -5242 Feb 18 i 17:18 19°508'19 4.35720 AU morning rise -5248 Mar 04 i 01:31 23°₹47'10 direct -5242 Apr 21 i 02:37 14°517'12 -5248 Mar 31 i 11:47 -5242 Aug 15 j 07:05 $0^{\circ}\Omega$ -5248 Jul 12 i 15:09 13°≈39'43 -5242 Aug 25 j 16:15 2°Ω17'37 retrograde evening set -5248 Sep 09 j 01:06 8°≈43'46 4.08242 AU max. Earth dist. -5242 Sep 05 j 13:37 4°**Ω**44'01 min Earth dist 6.32417 AU -5248 Sep 10 j 03:37 8°≈34'42 -2°-5'-41 opposition direct -5248 Nov 07 j 11:41 3°≈36'01 -5242 Sep 07 j 04:54 5°**Ω**06'07 1°26'14 conjunction -5247 Feb 06 j 23:48 15°≈ minimum elong -5242 Sep 07 j 04:55 5°**Ω**06′07 1°26'29 -5242 Sep 19 j 15:43 -5247 Mar 13 j 19:17 22°≈40'26 morning rise 7°**£**53′53 evening set -5242 Oct 22 j 16:35 15°**Ω** conjunction -5247 Mar 27 j 12:52 25°≈49'32 -1°-16'-1 retrograde -5241 Jan 20 j 13:46 25° **Q**35'04 -5247 Mar 27 j 12:56 25°≈49'35 -5241 Mar 22 j 15:03 20° Ω43'00 1°57'46 minimum elong 1°16'12 opposition -5241 Mar 23 j 17:55 20°**Ω**34'28 max. Earth dist. -5247 Mar 29 j 03:18 26°≈11'37 6.12541 AU min. Earth dist. 4.28343 AU -5241 May 23 j 15:11 morning rise -5247 Apr 10 j 07:27 28°≈58'57 direct 15°**Ω**45'37 -5247 Apr 14 j 18:56 0°**)**€ -5241 Sep 08 j 05:25 0° M retrograde -5247 Aug 15 j 16:24 18°**米**00'48 evening set -5241 Sep 26 j 00:31 3° m 58'59 min. Earth dist. -5247 Oct 13 j 05:27 13° **★** 04'13 4.17614 AU max. Earth dist. -5241 Oct 07 j 05:32 6°₩33'03 6.23407 AU opposition -5247 Oct 14 j 00:42 12° **★** 57'40 -1°-30'-21 direct -5247 Dec 12 j 07:32 7°**¥**55'52 conjunction -5241 Oct 08 j 12:35 6° m 50'53 1°07'48 -5246 Apr 18 j 17:46 26° **ਮ** 38'41 -5241 Oct 08 j 12:39 6° m 50'55 1°07'55 evening set minimum elong -5241 Oct 21 j 00:50 9°m/43'01 morning rise

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5240 in astronomical counting style is the year 5241 BCE in historical counting style. -5240 Feb 24 i 00:04 28° m 11'50 min. Earth dist. -5235 Oct 18 i 00:43 17° ¥55'52 4.19301 AU retrograde -5240 Apr 25 j 04:08 23° mp 17'19 1°13'27 -5235 Dec 17 j 05:57 12°**)**(48'04 opposition direct min. Earth dist. -5240 Apr 25 j 19:42 23° m 12'20 -5234 Apr 17 j 04:18 $0^{\circ}\Upsilon$ 4.18226 AU -5240 Jun 25 j 00:48 -5234 Apr 23 j 16:46 1°Y26'37 direct 18° m 22'38 evening set -5240 Sep 26 j 12:40 0∘ଫ 4°Υ30'39 0°-34'-50 -5240 Oct 27 j 09:35 -5234 May 07 j 10:14 evening set 6°**£**55'38 conjunction -5234 May 07 j 10:17 4°**Υ**30'41 minimum elong 0°34'50 -5240 Nov 09 j 02:15 9°**£**53'49 0°27'19 4°**Υ**39'51 conjunction max. Earth dist. -5234 May 08 j 02:40 6.24468 AU 7°**Y**33'44 minimum elong -5240 Nov 09 j 02:17 9°**£**53'50 0°27'17 morning rise -5234 May 21 j 02:06 25°**Ƴ**31'14 max. Earth dist. -5240 Nov 08 j 15:54 9°**₽**47'45 6.13162 AU retrograde -5234 Sep 21 j 13:25 morning rise -5240 Nov 21 j 20:29 12°**♀**53'04 opposition -5234 Nov 20 j 00:09 20°**Ƴ**32'16 0°-17'-14 -5234 Nov 19 j 21:07 20°**Υ**33'17 -5239 Feb 20 j 08:39 0°M min. Earth dist. 4.29194 AU -5233 Jan 19 j 18:36 retrograde -5239 Mar 31 j 01:31 2°M15'23 direct 15°**Y**28'34 -5239 May 08 j 22:34 30°R **⊆** asc. node -5233 Feb 25 j 05:34 17°**Y**27'45 opposition -5239 May 31 j 00:59 27°**₽**17'16 0°02'18 -5233 May 10 j 10:18 0°8 min. Earth dist. -5239 May 31 j 00:03 27°**♀**17'34 4.08604 AU evening set -5233 May 27 j 19:25 3°844'50 desc. node -5239 Jun 11 j 19:02 25°**♀**46'58 direct -5239 Jul 29 j 13:33 22°**2**24'15 conjunction -5233 Jun 10 j 06:46 6°**8**42'47 0°12'33 -5239 Oct 09 j 13:41 0°M minimum elong -5233 Jun 10 j 06:45 6°842'46 0°12'42 evening set -5239 Nov 30 j 10:43 11°ML18'53 behind sun begin -5233 Jun 10 j 01:40 6°839'59 behind sun end -5233 Jun 10 j 11:49 6°**8**45'33 conjunction -5239 Dec 13 i 10:18 14°M23'40 0°-23'-48 max. Earth dist. -5233 Jun 09 i 21:45 6°**8**37'49 6.33214 AU minimum elong -5239 Dec 13 i 10:16 14°M23'39 0°24'00 morning rise -5233 Jun 23 i 15:16 9°**8**39'11 max. Earth dist. -5239 Dec 13 j 23:18 14°M 31'24 6.05073 AU -5233 Jul 18 i 16:01 15°8 -5239 Dec 15 j 23:26 15°M retrograde -5233 Oct 22 j 18:33 26°857'35 -5239 Dec 26 j 13:05 17° ML30'13 -5233 Dec 21 j 12:40 22°**8**02'25 0°50'44 morning rise opposition -5238 Feb 22 j 10:59 -5233 Dec 22 j 01:38 21°858'10 4.36158 AU 0°×7 min. Earth dist. -5238 May 07 j 01:53 -5232 Feb 21 j 11:07 16°**8**58'43 retrograde 7° ₹34'09 direct -5238 Jul 06 j 14:47 -5232 Jun 04 j 22:02 $\Pi^{\circ}0$ 2°**₹**32'05 -1°-12'-16 opposition -5238 Jul 05 j 20:25 2°**҂**38'12 4.02886 AU -5232 Jun 28 j 09:48 4°**I**59'58 min. Earth dist. evening set -5238 Jul 26 j 16:24 30°RM -5232 Jul 10 j 07:51 max. Earth dist. 7°**Ⅲ**36'44 6.37812 AU -5238 Sep 03 j 00:59 27°M38'40 direct 7°**II**52'13 0°55'08 -5232 Jul 11 j 12:01 -5238 Oct 10 j 23:05 0° ₹ conjunction -5232 Jul 11 j 11:57 -5237 Jan 05 j 06:12 16° **₹** 49'39 7°**Ⅱ**52'11 evening set minimum elong 0°55'24 -5232 Jul 24 j 10:42 10°**Ⅲ**42'45 morning rise -5237 Jan 18 j 13:30 19°**х** 58'59 -1°-7'-12 -5232 Nov 21 j 17:14 27°**I**I46'21 conjunction retrograde -5237 Jan 18 j 13:26 19°**х** 58'56 1°07'31 -5231 Jan 20 j 23:39 22°**Ⅲ**53'53 1°43'00 minimum elong opposition max. Earth dist. -5237 Jan 20 j 01:38 20°**尽** 20'27 6.02170 AU min. Earth dist. -5231 Jan 21 j 23:24 22° **1**46'14 4.38234 AU morning rise -5237 Jan 31 j 23:59 23°**尽** 10'02 direct -5231 Mar 24 j 12:10 17°**I**I51'34 -5237 Mar 02 j 22:07 0°る -5231 Jul 02 j 17:05 0ಂತಾ retrograde -5237 Jun 13 j 00:11 13°₹24'18 evening set -5231 Jul 29 j 22:47 5°5948'12 -5237 Aug 11 j 22:19 8°る19'33 -2°00'-28 max. Earth dist. -5231 Aug 10 j 00:49 8°915'10 6.37074 AU opposition min. Earth dist. -5237 Aug 10 j 19:24 8°る28'41 4.03262 AU -5237 Oct 08 j 23:08 3°る23'44 -5231 Aug 11 j 16:04 8°536'55 1°21'42 direct conjunction -5236 Feb 11 j 04:23 22°₹37'42 -5231 Aug 11 j 16:01 evening set minimum elong 8°936'54 morning rise -5231 Aug 24 i 06:32 11°524'20 -5236 Feb 24 i 18:07 25°る48'12 -1°-25'-32 conjunction retrograde -5231 Dec 23 i 09:28 28°538'34 minimum elong -5236 Feb 24 i 18:07 25° ₹ 48'12 1°25'49 opposition -5230 Feb 22 i 02:25 23°547'11 2°06'28 max. Earth dist. -5236 Feb 26 j 14:49 26°る14'22 6.05635 AU min. Earth dist. -5230 Feb 23 j 08:12 23°537'42 4.34840 AU -5236 Mar 09 i 10:26 28° ₹ 59'51 direct -5230 Apr 25 i 15:45 18°947'18 morning rise -5236 Mar 13 j 18:19 -5230 Jul 29 j 07:38 $0^{\circ}\Omega$ 0°≈≈ 6°**Ω**49'31 -5236 May 28 j 21:14 15°≈ evening set -5230 Aug 30 j 01:33 -5236 Jul 17 j 13:28 18°≈45'57 max. Earth dist. -5230 Sep 09 j 21:46 9°**Ω**15'46 retrograde 6.31199 AU -5236 Sep 05 j 08:23 15°R≈ min. Earth dist. -5236 Sep 13 j 22:57 13°≈50'16 4.09532 AU conjunction -5230 Sep 11 j 13:45 9°**Ω**38'20 1°25'09 -5230 Sep 11 j 13:47 opposition -5236 Sep 15 j 02:05 13°≈41'00 -2°-3'-4 minimum elong 9°**£**38′20 1°25'23 -5236 Nov 12 j 12:01 direct 8°≈41'48 morning rise -5230 Sep 24 j 00:34 12°**Ω**26'35 -5235 Jan 16 j 17:20 15°≈ -5230 Oct 05 j 12:40 15°**Ω** -5229 Jan 13 j 00:53 evening set -5235 Mar 19 j 00:11 27°≈42'54 0° m -5235 Mar 29 j 00:13 -5229 Jan 25 j 08:11 0°**)**€ retrograde 0° My 14'11 -5229 Feb 06 j 15:34 30°₽£ conjunction -5235 Apr 01 j 18:01 0°**升**51'26 -1°-12'-20 opposition -5229 Mar 27 j 10:03 $25^{\circ}\Omega$ 21'53 $1^{\circ}53'38$ minimum elong -5235 Apr 01 j 18:05 0°**¥**51′28 1°12'31 min. Earth dist. -5229 Mar 28 j 11:25 $25^{\circ}\Omega$ 13'48 4.26874 AU max. Earth dist. -5235 Apr 03 j 06:02 1°**)** 12′03 6.14131 AU direct -5229 May 28 j 06:06 20°**Ω**24'56 morning rise -5235 Apr 15 j 12:35 4°**)**€00'06 -5229 Aug 21 j 07:58 0°m -5235 Aug 20 j 09:51 22°**米**52'56 -5229 Sep 30 j 12:45 8° mp 41'21 retrograde evening set -5235 Oct 18 j 17:18 17° **★** 50'13 -1°-22'-31 max. Earth dist. -5229 Oct 11 j 22:05 11° mp 18'23 6.21844 AU opposition

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5229 in astronomical counting style is the year 5230 BCE in historical counting style. -5229 Oct 13 j 01:21 11° m 34'07 1°03'13 morning rise -5223 Apr 20 j 13:01 8°**¥**50′52 conjunction -5229 Oct 13 j 01:25 11° m 34'09 -5223 Aug 24 j 22:19 27° ¥ 35'22 minimum elong 1°03'20 retrograde -5229 Oct 25 j 14:04 14° m 27'10 -5223 Oct 23 j 06:05 22° ★ 33'07 -1°-14'-26 morning rise opposition -5228 Jan 14 j 11:19 0∘**⊽** -5223 Oct 22 j 14:48 22° **€** 38'19 4.20772 AU min. Earth dist. -5228 Feb 29 j 00:57 -5223 Dec 21 j 21:46 17° ¥ 30'39 retrograde 3°**£**03'54 direct $0^{\circ}\Upsilon$ -5228 Apr 15 j 08:55 30°R, Mp -5222 Mar 31 j 05:36 28°**m**09'01 6°**Y**05'54 opposition -5228 Apr 30 j 04:32 1°04'35 evening set -5222 Apr 28 j 12:09 min. Earth dist. -5228 Apr 30 j 18:18 28°M 04'36 4.16693 AU 23° Mp 14'44 9°**Ƴ**09'09 direct -5228 Jun 29 j 21:01 conjunction -5222 May 12 j 04:57 0°-28'-31 -5222 May 12 j 04:59 -5228 Sep 06 j 09:32 0∘**⊽** minimum elong 9°**Υ**09'10 0°28'30 -5222 May 12 j 16:03 evening set -5228 Nov 01 j 03:09 11°**⊆**51'01 max. Earth dist. 9°**Υ**15'20 6.25772 AU -5222 May 25 j 20:13 12°**Y**11'24 morning rise -5228 Nov 13 j 20:33 14°**♀**50'09 -5222 Sep 20 j 17:51 conjunction 0°20'20 0°8 minimum elong -5228 Nov 13 j 20:35 14°**£**50'10 0°20'17 retrograde -5222 Sep 25 j 23:01 0°**8**02'43 max. Earth dist. -5228 Nov 13 j 12:37 14°**£**45'29 6.11816 AU -5222 Oct 01 j 03:38 30°RΥ morning rise -5228 Nov 26 j 16:05 17°**♀**50'32 opposition -5222 Nov 24 j 09:43 25°**Y**04'17 0°-7'-31 -5227 Jan 22 j 14:33 0°M min. Earth dist. -5222 Nov 24 j 09:58 25°**Υ**04'12 4.30224 AU retrograde -5227 Apr 05 j 05:43 7°M19'45 asc. node -5221 Jan 05 j 19:17 20°**Ƴ**33'02 desc. node -5227 Apr 21 j 09:59 6°M55'07 direct -5221 Jan 24 j 09:01 20°\bar{0}00'26 opposition -5227 Jun 05 j 05:00 2°M21'02 0°-8'-44 -5221 Apr 22 j 19:50 0°8 2°M22'32 min. Earth dist. -5227 Jun 05 j 00:23 4.07584 AU evening set -5221 Jun 01 j 09:55 8°814'47 -5227 Jun 24 i 00:28 30°R Ω direct -5227 Aug 03 i 13:01 27°**£**28′06 conjunction -5221 Jun 14 i 20:20 11°**8**12'02 0°19'01 -5227 Sep 12 i 08:51 0°M minimum elong -5221 Jun 14 j 20:19 11°**8**12'01 0°19'11 -5227 Nov 29 j 09:26 15°M max. Earth dist. -5221 Jun 14 j 09:04 11°**8**05'49 6.33902 AU -5227 Dec 05 j 10:01 16°M25'01 -5221 Jun 28 j 03:28 14°**8**07'38 morning rise evening set -5221 Jul 02 j 03:24 15°8 -5227 Dec 18 j 10:47 19°M30'32 0°-30'-51 -5221 Sep 27 j 09:33 $\mathbb{I}^{\circ 0}$ conjunction -5227 Dec 18 j 10:44 19°M30'30 0°31'04 -5221 Oct 27 j 01:29 1°**Ⅲ**23'21 retrograde minimum elong -5227 Dec 19 j 05:10 19°M-41'27 -5221 Nov 25 j 17:29 30°R8 max. Earth dist. 6.04481 AU -5227 Dec 31 j 14:32 22°M37'47 -5221 Dec 25 j 21:39 26°828'38 0°59'16 morning rise opposition -5221 Dec 26 j 11:36 26°**8**24'04 4.36486 AU -5226 Feb 01 j 23:34 0°**尽** min. Earth dist. -5220 Feb 25 j 21:09 21°**8**25'05 retrograde -5226 May 12 j 08:35 12°**х** 44'31 direct -5226 Jul 11 j 18:54 7°**∡**¹41'55 -5220 May 17 j 17:20 opposition -1°-21'-15 $0^{\circ}\Pi$ -5226 Jul 10 j 23:21 7°**∡**748'27 4.02802 AU -5220 Jul 02 j 21:00 min. Earth dist. evening set 9°**I**I26′04 -5226 Sep 08 j 03:37 direct 2°**∡**¹48'16 -5225 Jan 10 j 09:50 21° ₹ 59'24 -5220 Jul 15 j 21:49 12°**Ⅲ**17'47 0°59'59 evening set conjunction minimum elong -5220 Jul 15 j 21:45 12°**Ⅱ**17'45 1°00'14 conjunction -5225 Jan 23 j 17:56 25°**х** 08'54 -1°-11'-33 max. Earth dist. -5220 Jul 14 j 14:47 12°**耳**00'42 6.37748 AU minimum elong -5225 Jan 23 j 17:52 25°**尽** 08'52 1°11'51 morning rise -5220 Jul 28 j 19:23 15°**Ⅲ**07'51 max. Earth dist. -5225 Jan 25 j 07:50 25°**尽** 31'22 6.02567 AU -5220 Oct 19 j 03:49 0ಂತಾ -5225 Feb 06 j 05:26 28° ₹20'07 -5220 Nov 26 j 04:33 2°512'28 morning rise retrograde -5225 Feb 13 j 08:11 -5219 Jan 03 j 11:40 30°R II -5225 Jun 18 j 00:17 18°る31'15 -5219 Jan 25 j 11:02 27°**Ⅲ**20'16 1°48'13 retrograde opposition -5225 Aug 16 j 22:16 13°ਰੋ26'17 -2°-3'-40 -5219 Jan 26 j 12:47 27° **I**I 12'00 4.37806 AU opposition min. Earth dist. min. Earth dist. -5225 Aug 15 j 17:54 13°る35'55 4.04124 AU direct -5219 Mar 29 i 01:10 22° **Ⅱ**18'16 direct -5225 Oct 13 j 22:45 8°る30'00 -5219 Jun 13 j 22:41 evening set -5224 Feb 16 j 08:16 27°る41'48 evening set -5219 Aug 03 i 08:25 10°515'58 -5224 Feb 26 i 05:35 max. Earth dist. -5219 Aug 14 i 09:07 12°542'32 6.36304 AU -5224 Feb 29 j 22:41 0°≈52'02 -1°-25'-30 conjunction -5219 Aug 16 i 00:51 13°504'36 1°23'39 conjunction minimum elong -5224 Feb 29 j 22:42 0°≈52'02 1°25'47 -5219 Aug 16 j 00:49 13°504'35 minimum elong 1°23'57 max. Earth dist. -5224 Mar 02 j 18:23 morning rise -5219 Aug 28 j 14:31 15°552'00 1°≈17'32 6.06858 AU -5219 Nov 11 j 17:59 morning rise -5224 Mar 14 j 15:28 4°≈03'18 0 $^{\circ}\Omega$ -5224 May 04 j 08:16 15°**≈** retrograde -5219 Dec 27 j 22:37 3°**Ω**10′20 retrograde -5224 Jul 22 j 09:00 23°≈42'00 -5218 Feb 13 j 04:46 30°Rூ opposition -5224 Sep 19 j 20:23 18°≈37'10 -1°-59'-38 opposition -5218 Feb 26 j 17:40 28°518'54 2°06'53 min. Earth dist. -5224 Sep 18 j 19:10 18°≈45'47 4.10964 AU min. Earth dist. -5218 Feb 27 j 22:16 28°509'48 4.33808 AU -5224 Oct 19 j 16:13 15°R≈ direct -5218 Apr 30 j 04:08 23°519'28 -5224 Nov 17 j 10:39 13°≈37'27 -5218 Jul 09 j 15:07 direct $0^{\circ}\Omega$ evening set -5218 Sep 03 j 11:55 $11^{\circ}\Omega$ 23'38 -5224 Dec 16 j 10:24 15°≈ -5223 Mar 12 j 12:59 0°**)**€ max. Earth dist. -5218 Sep 14 j 10:20 13°Ω51'34 6.29997 AU evening set -5223 Mar 24 j 00:24 2°**)** 34'56 conjunction -5218 Sep 15 j 23:52 14°Ω12'49 1°23'31 conjunction -5223 Apr 06 j 18:36 5°**)** 42′56 -1°-8′-17 minimum elong -5218 Sep 15 j 23:54 $14^{\circ}\Omega$ 12'50 1° 23'43 minimum elong -5223 Apr 06 j 18:40 5°**)** 42′58 1°08'26 -5218 Sep 19 j 11:14 15° Ω max. Earth dist. -5223 Apr 08 j 05:05 6°¥02'36 6.15661 AU -5218 Sep 28 j 10:33 17°**Ω**01'32 morning rise

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 17

,	ical year style is used: T		Č	. //	r 5219 BCE in historical	, 1	
recontion, astronom	-5218 Dec 02 j 13:18	0° m)	in astronomical co.	min. Earth dist.	-5212 Sep 23 j 13:24		
retrograde	-5217 Jan 30 j 04:28	4° Mp 55'17		direct	-5212 Nov 22 j 06:08		2130110
opposition	-5217 Apr 01 j 06:21	0° Mp 02'44	1°48'41	uncet	-5211 Feb 22 j 21:47	0° ₩	
оррозиюн	-5217 Apr 01 j 14:57		1 40 41	evening set	-5211 Mar 29 j 00:55	7° ∺ 26'53	
min. Earth dist.	-5217 Apr 02 j 06:57	29° Ω 54'55	4.25567 AU	evening set	3211 With 27 J 00:33	7 7(2033	
direct	-5217 Apr 02 j 00:07	25° Ω 06'14	4.23307 AO	conjunction	-5211 Apr 11 j 19:07	10°¥34'24	-1°-3'-46
direct	-5217 Jul 30 j 11:54	0°M)		minimum elong	-5211 Apr 11 j 19:07		1°03'55
evening set	-5217 Oct 05 j 01:37	-		max. Earth dist.	-5211 Apr 13 j 01:09		6.16914 AU
evening set	-3217 Oct 03 j 01.37	ייי די ביי אָן וו		morning rise	-5211 Apr 25 j 13:34		0.10714 AC
conjunction	-5217 Oct 17 j 14:35	16° m) 18'18	0°58'11	morning risc	-5211 Jul 22 j 02:42	0°Υ	
minimum elong	-5217 Oct 17 j 14:39	16° M) 18'20	0°58'17	retrograde	-5211 Jul 22 j 02.42 -5211 Aug 29 j 11:30	2° Υ 19'04	
max. Earth dist.	-5217 Oct 17 j 14:59	16° Mp 03'31	6.20545 AU	retrograde	-5211 Aug 29 j 11:30		
morning rise	-5217 Oct 10 j 12:39	10 m/03 31 19° m/12'15	0.20343 AU	opposition	-5211 Oct 00 j 14:31 -5211 Oct 27 j 19:10		-1°-5'-52
morning risc	-5217 Dec 19 j 21:22	0° ت		min. Earth dist.	-5211 Oct 27 j 06:24		4.21973 AU
retrograde	-5216 Mar 05 j 00:17	o — 7° £ 55'51		direct	-5211 Oct 27 j 00:24 -5211 Dec 26 j 15:18		4.21)/3 AO
opposition	-5216 May 05 j 05:02	3° ⊆ 00′26	0°55'13	direct	-5211 Dec 20 j 15:18 -5210 Mar 11 j 21:07	0°Υ	
min. Earth dist.	-5216 May 05 j 15:24	2° £ 57'06	4.15482 AU	evening set	-5210 May 03 j 08:04		
mm. Latin dist.	-5216 May 30 j 10:55		4.13462 AU	evening set	-3210 May 03 J 08.04	10 14/23	
direct	, ,	30°RM)		agniumation	-5210 May 17 j 00:29	120050102	0°-21'-58
direct	-5216 Jul 04 j 16:34	28° Mp 06'26 0° <u>₽</u>		conjunction minimum elong	-5210 May 17 j 00:29		0°21'57
avanina aat	-5216 Aug 08 j 12:25 -5216 Nov 05 j 20:23	0 ≗ 16° £ 44'51		max. Earth dist.	-5210 May 17 j 00:31 -5210 May 17 j 09:30		6.26847 AU
evening set	-3210 NOV 03 J 20.23	10 ==44 31					0.2064 / AU
	5016 N 10 : 14.46	100 0 44150	0012115	morning rise	-5210 May 30 j 14:46	0° 8	
conjunction	-5216 Nov 18 j 14:46	19° Ω 44'50 19° Ω 44'50	0°13'15		-5210 Aug 05 j 16:12	4° 8 37'25	
minimum elong	-5216 Nov 18 j 14:48		0°13'09	retrograde	-5210 Sep 30 j 08:42		
behind sun begin	-5216 Nov 18 j 09:55	19° £ 41'59		asc. node	-5210 Nov 15 j 18:32	1° 8 21'50	
behind sun end	-5216 Nov 18 j 19:40	19° £ 47'42	(10002 ATT	***	-5210 Nov 26 j 06:56		0002120
max. Earth dist.	-5216 Nov 18 j 11:36	19° £ 42'58	6.10803 AU	opposition	-5210 Nov 28 j 20:25		0°02'20
morning rise	-5216 Dec 01 j 11:13	22° £ 46'06		min. Earth dist.	-5210 Nov 28 j 22:11		4.31088 AU
	-5215 Jan 02 j 12:27	0°M		direct	-5209 Jan 28 j 22:16		
desc. node	-5215 Mar 01 j 07:19	9°M55'24			-5209 Apr 01 j 11:52	0°B	
retrograde	-5215 Apr 10 j 11:03	12°M20'56	00 101 20	evening set	-5209 Jun 06 j 01:34		
opposition	-5215 Jun 10 j 07:46	7°M21'41	0°-19'-39		-5209 Jun 16 j 00:52	15°0	
min. Earth dist.	-5215 Jun 10 j 01:43	7°M23'40	4.06848 AU		7200 I 10:10 20	150 45104	0005100
direct	-5215 Aug 08 j 13:01	2°M28'47		conjunction	-5209 Jun 19 j 10:38		0°25'28
. ,	-5215 Nov 12 j 05:05	15°M		minimum elong	-5209 Jun 19 j 10:36		0°25'40
evening set	-5215 Dec 10 j 08:36	21°M27'22		max. Earth dist.	-5209 Jun 18 j 18:59		6.34482 AU
	5015 D 20 : 10 16	2.40M 22120	00.271.26	morning rise	-5209 Jul 02 j 16:40		
conjunction	-5215 Dec 23 j 10:16				-5209 Aug 28 j 13:24	0°II	
minimum elong	-5215 Dec 23 j 10:13	24°M33'27	0°37'52	retrograde	-5209 Oct 31 j 11:51	5°II53'25	1907120
max. Earth dist.	-5215 Dec 24 j 06:58 -5214 Jan 05 j 15:15	24°M45'47	6.04072 AU	opposition	-5209 Dec 30 j 08:23	0°П59'08 0°П53'46	1°07'38 4.36772 AU
morning rise	·	27°M41'24		min. Earth dist.	-5209 Dec 31 j 00:49		4.30//2 AU
	-5214 Jan 15 j 11:58	0°×7		J: 4	-5208 Jan 06 j 22:42		
retrograde	-5214 May 17 j 11:04	17° 🗷 50'08	-1°-29'-31	direct	-5208 Mar 01 j 11:21	25° 8 55'44 0° Ⅱ	
opposition	-5214 Jul 16 j 20:40	12° × ⁷ 47'08	4.02796 AU	evening set	-5208 Apr 24 j 15:00 -5208 Jul 07 j 09:16		
min. Earth dist.	-5214 Jul 15 j 22:44	12° х 54'29	4.02/90 AU	Č			(27722 ATT
direct	-5214 Sep 13 j 02:00	7°× 7 53'15		max. Earth dist.	-5208 Jul 19 j 01:40	16° Ⅱ 30'18	6.37722 AU
evening set	-5213 Jan 15 j 12:14	27 x ·04 32		conjunction	5200 1.1 20:00.57	160TA7!22	1°04'35
	-5213 Jan 27 j 20:38	0.0		,	-5208 Jul 20 j 08:57		1°04'50
aaniumatian	5012 Inn 00:01.16	00=14127	10 15! 20	minimum elong	-5208 Jul 20 j 08:53	16° Ⅱ 47'30 19° Ⅱ 37'04	1 04 30
conjunction	-5213 Jan 28 j 21:16	0°る14'33	-1°-15'-20	morning rise	-5208 Aug 02 j 05:05	19° ப 3/'04 0° ©	
minimum elong	-5213 Jan 28 j 21:12		1°15'38	ratra ara da	-5208 Sep 22 j 13:58		
max. Earth dist.	-5213 Jan 30 j 12:21	0°る37'44	6.02938 AU	retrograde	-5208 Nov 30 j 14:06	6°942'28	1050155
morning rise	-5213 Feb 11 j 09:34	3°る25'57		opposition	-5207 Jan 29 j 23:32	1°950'29	1°52'55
retrograde	-5213 Jun 23 j 00:43	23°る34'23	20 51 57	min. Earth dist.	-5207 Jan 31 j 00:57	1°542'19	4.37515 AU
opposition	-5213 Aug 21 j 20:41	18° る 29'18	-2°-5'-57	1.	-5207 Feb 13 j 16:24		
min. Earth dist.	-5213 Aug 20 j 16:57	18°る38'44	4.04838 AU	direct	-5207 Apr 02 j 13:08		
direct	-5213 Oct 18 j 23:04	13° る 32'32			-5207 May 20 j 04:08	0°95	
	-5212 Feb 09 j 15:05	0°≈ 2°••42105		evening set	-5207 Aug 07 j 18:57		()5771 411
evening set	-5212 Feb 21 j 11:09	2° ≈ 43'05		max. Earth dist.	-5207 Aug 18 j 18:27	17° © 13'07	6.35771 AU
conjunction	-5212 Mar 06 j 02:23	5°≈53'12	-1°-24'-53	conjunction	-5207 Aug 20 j 10:19	17° © 35'19	1°25'09
minimum elong	-5212 Mar 06 j 02:25	5° ≈ 53'13	1°25'08	minimum elong	-5207 Aug 20 j 10:17	17° 5 35'18	1°25'26
max. Earth dist.	-5212 Mar 07 j 22:26	6° ≈ 18'49	6.07851 AU	morning rise	-5207 Sep 01 j 23:18	20°522'37	
morning rise	-5212 Mar 19 j 19:33	9° ≈ 04'11			-5207 Oct 18 j 12:17	$0^{\circ}\Omega$	
	-5212 Apr 15 j 04:42	15° ≈		retrograde	-5206 Jan 01 j 14:05	7° Ω 44'13	
retrograde	-5212 Jul 27 j 03:50	28° ≈ 36′25		opposition	-5206 Mar 03 j 09:50	2° Ω 52'44	2°06'34
opposition	-5212 Sep 24 j 13:49	23° ≈ 31'53	-1°-55'-27	min. Earth dist.	-5206 Mar 04 j 14:52	2° Ω 43'30	4.33069 AU

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 18 Attention, astronomical year style is used: The year -5206 in astronomical counting style is the year 5207 BCE in historical counting style.

Attention, astronom	ical year style is used: Tl	ne year -5206	in astronomical co	unting style is the year	5207 BCE in historical of	counting style	
	-5206 Mar 27 j 14:15	30° ₹ 5			-5200 Jan 23 j 03:57	0° ≈	
direct	-5206 May 04 j 20:29			evening set	-5200 Feb 26 j 12:47	7° ≈ 39'35	
	-5206 Jun 11 j 20:05	$0^{\circ}\Omega$					
	-5206 Sep 03 j 13:36			conjunction	-5200 Mar 11 j 04:35		-1°-23'-39
evening set	-5206 Sep 07 j 21:59	15° Ω 58'29		minimum elong	-5200 Mar 11 j 04:37	10° ≈ 49'40	1°23'53
max. Earth dist.	-5206 Sep 18 j 21:35	18° Ω 27'26	6.29114 AU	max. Earth dist.	-5200 Mar 12 j 21:51		6.08618 AU
	500 C	100 0 4515 6	1001100	morning rise	-5200 Mar 24 j 22:25		
conjunction	-5206 Sep 20 j 09:46	18° Ω 47'56			-5200 Mar 29 j 06:03	15° ≈	
minimum elong	-5206 Sep 20 j 09:48	18° Ω 47'57	1°21'36	. 1	-5200 Jun 14 j 11:36	0°)(
morning rise	-5206 Oct 02 j 20:29 -5206 Nov 10 j 23:39	21° Ω 37'01		retrograde	-5200 Jul 31 j 20:38	3°) €27'12	
retrograde	-5206 Nov 10 j 25:39 -5205 Feb 03 j 21:27	0° Mp 9° Mp35'46		min. Earth dist.	-5200 Sep 17 j 04:42 -5200 Sep 28 j 06:49		4.13055 AU
opposition	-5205 Apr 06 j 02:03	4°M)42'51	1°43'03	opposition	-5200 Sep 28 j 05:57		-1°-50'-31
min. Earth dist.	-5205 Apr 06 j 23:59	4° m) 35'52	4.24594 AU	direct	-5200 Sep 27 j 03:37 -5200 Nov 27 j 01:05		-1 -30-31
iiiii. Lattii dist.	-5205 May 25 j 17:48	30°R <i>Ω</i>	4.243)4 AO	direct	-5199 Feb 02 j 14:49	0° ∀	
direct	-5205 Jun 06 j 15:51	29° Ω 46'43		evening set	-5199 Apr 03 j 00:22		
uncet	-5205 Jun 18 j 14:37	0°m)		evening sec	5199 11p1 05 j 00.22	12 /(1003	
evening set	-5205 Oct 09 j 13:39	18° Mp 06'18		conjunction	-5199 Apr 16 j 18:54	15° ¥ 23'16	0°-58'-51
max. Earth dist.	-5205 Oct 21 j 04:52	20° mp 47'31	6.19575 AU	minimum elong	-5199 Apr 16 j 18:59		0°58'57
	J	•		max. Earth dist.	-5199 Apr 17 j 23:37		6.17949 AU
conjunction	-5205 Oct 22 j 03:04	21°M 00'23	0°52'50	morning rise	-5199 Apr 30 j 13:04	18°) 30′06	
minimum elong	-5205 Oct 22 j 03:08	21°M 00'25	0°52'54		-5199 Jun 25 j 01:42	0° Y	
morning rise	-5205 Nov 03 j 17:14	23° m 55'02		retrograde	-5199 Sep 03 j 01:06	7° Ƴ 01'02	
	-5205 Nov 30 j 22:09	0∘ ⊽		opposition	-5199 Nov 01 j 08:09	1° Y 59'48	0°-56'-55
retrograde	-5204 Mar 10 j 00:08	12° ≏ 44'13		min. Earth dist.	-5199 Oct 31 j 21:07	2° Y 03'31	4.23016 AU
opposition	-5204 May 10 j 03:48	7° ≏ 48'18	0°45'34		-5199 Nov 16 j 13:05	30° ₹	
min. Earth dist.	-5204 May 10 j 13:03	7° ≏ 45'19	4.14557 AU	direct	-5199 Dec 31 j 07:40		
direct	-5204 Jul 09 j 12:50	2° £ 54'29			-5198 Feb 14 j 12:06	0 ° Υ	
evening set	-5204 Nov 10 j 12:09	21° ≏ 34'13		evening set	-5198 May 08 j 03:52	15° Y 27'47	
conjunction	-5204 Nov 23 j 07:23	24° £ 34'55	0°06'11	conjunction	-5198 May 21 j 19:30	18° Ƴ 29'43	0°-15'-18
minimum elong	-5204 Nov 23 j 07:23	24° Ω 34'55	0°06'06	minimum elong	-5198 May 21 j 19:31	18° Y 29'44	0°15'15
behind sun begin	-5204 Nov 22 j 23:42			behind sun begin	-5198 May 21 j 17:20	18° Y 28'31	
behind sun end	-5204 Nov 23 j 15:03	24° Ω 39'25		behind sun end	-5198 May 21 j 21:43		
max. Earth dist.	-5204 Nov 23 j 06:26	24° ≏ 34'22	6.10012 AU	max. Earth dist.	-5198 May 22 j 00:24	18° Ƴ 32'26	6.27830 AU
morning rise	-5204 Dec 06 j 04:59	27° ≏ 37'01		morning rise	-5198 Jun 04 j 09:03	21° Y 30'25	
	-5204 Dec 16 j 11:10	0° M			-5198 Jul 14 j 20:27	0°8	
desc. node	-5203 Jan 09 j 23:08	5°M25'55		asc. node	-5198 Sep 25 j 16:02	9° 8 03'07	
	-5203 Mar 07 j 16:39	15° ™		retrograde	-5198 Oct 04 j 18:33	9° 8 11'21	
retrograde	-5203 Apr 15 j 10:58	17°M16'26		opposition	-5198 Dec 03 j 07:19	4° 8 13'59	0°12'10
	-5203 May 24 j 07:49	15°RM		min. Earth dist.	-5198 Dec 03 j 11:04	4° 8 12'45	4.31942 AU
opposition	-5203 Jun 15 j 07:43	12°M16'37	0°-30'-13		-5197 Jan 10 j 10:43		
min. Earth dist.	-5203 Jun 14 j 22:53		4.06269 AU	direct	-5197 Feb 02 j 13:18		
direct	-5203 Aug 13 j 08:21	7° ™ 23'40			-5197 Feb 25 j 22:52	0°8	
	-5203 Oct 24 j 01:39				-5197 May 30 j 20:05		
evening set	-5203 Dec 15 j 05:03	26°M23'39		evening set	-5197 Jun 10 j 16:50		605140 477
aanius -ti	5202 D 20 : 07 42	200m 20110	0°-43'-58	max. Earth dist.	-5197 Jun 23 j 08:12	20° 0 07'49	6.35149 AU
conjunction minimum elong	-5203 Dec 28 j 07:42	29°M30'19 29°M30'17		agniumation	5107 Jun 24 i 00:49	200 🔀 16/57	0°31'46
max. Earth dist.	-5203 Dec 28 j 07:39 -5203 Dec 29 j 06:48	29°IL30'17 29°IL44'03	0°44'13 6.03743 AU	conjunction minimum elong	-5197 Jun 24 j 00:48 -5197 Jun 24 j 00:46		0°31'46 0°31'59
max. Earm dist.	-5203 Dec 29 j 00:48 -5203 Dec 30 j 09:38	29 11 1. 44 03	0.03743 AU	morning rise	-5197 Jul 24 j 00:40		0 31 39
morning rise	-5202 Jan 10 j 13:40	2° × ⁷ 38'48		morning 1150	-5197 Aug 08 j 13:28	0°II	
retrograde	-5202 May 22 j 12:05	22° х 49'17		retrograde	-5197 Nov 04 j 20:02		
opposition	-5202 Jul 21 j 19:44	17° × ⁷ 45'52	-1°-36'-58	opposition	-5196 Jan 03 j 18:55	5° П 28'00	1°15'33
min. Earth dist.	-5202 Jul 20 j 21:29	17° ₹ 53'21	4.02755 AU	min. Earth dist.	-5196 Jan 04 j 12:13	5° Ⅲ 22'23	4.37206 AU
direct	-5202 Sep 18 j 00:37	12° ≯ 51'38		direct	-5196 Mar 05 j 23:59	0° Ⅲ 24'49	,_,,
	-5201 Jan 11 j 16:13	0°ප		evening set	-5196 Jul 11 j 20:34		
evening set	-5201 Jan 20 j 12:34	2° ප 04'05		max. Earth dist.	-5196 Jul 23 j 08:46		6.37846 AU
	500.1 F		10.10: -0		#106 X 1 - 2 : : : -		1000:15
conjunction	-5201 Feb 02 j 22:37	5°₹14'06	-1°-18'-29	conjunction	-5196 Jul 24 j 18:46		1°08'46
minimum elong	-5201 Feb 02 j 22:34	5°₹14'04	1°18'48	minimum elong	-5196 Jul 24 j 18:43		1°09'04
max. Earth dist.	-5201 Feb 04 j 15:36	5°る38'19	6.03185 AU	morning rise	-5196 Aug 06 j 13:51		
morning rise	-5201 Feb 16 j 11:44	8°る25'41			-5196 Sep 03 j 11:56	0°95	
retrograde	-5201 Jun 27 j 23:08	28° る 31'38	20 71 10	retrograde	-5196 Dec 05 j 01:07		1056155
opposition	-5201 Aug 26 j 16:35		-2°-7'-18	opposition	-5195 Feb 03 j 11:41	6°517'51	1°56'55
min. Earth dist. direct	-5201 Aug 25 j 13:00 -5201 Oct 23 j 19:05		4.05372 AU	min. Earth dist. direct	-5195 Feb 04 j 14:36 -5195 Apr 07 j 03:00	6° © 09'14 1° © 16'30	4.37314 AU
uncei	-5201 Oct 25 J 19.05	10 029 22		direct	-5175 Apr 0/J 05.00	1 201030	

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5195 in astronomical counting style is the year 5196 BCE in historical counting style. -5195 Aug 12 i 03:44 19°5514'28 max. Earth dist. -5189 Feb 09 j 21:46 10°る49'34 6.03428 AU evening set -5195 Aug 23 j 03:19 21°5540'57 -5189 Feb 21 j 18:47 13°る37'09 max. Earth dist. 6.35228 AU morning rise -5189 May 14 j 21:47 0°≈ -5189 Jul 02 j 23:53 3°≈40'12 -5195 Aug 24 j 18:25 22°502'45 1°26'09 conjunction retrograde -5195 Aug 24 j 18:24 22°502'45 -5189 Aug 21 j 04:09 30°R♂ minimum elong 1°26'25 -5195 Sep 06 j 06:35 24°5549'58 morning rise opposition -5189 Aug 31 j 16:26 28°중35'02 -2°-7'-45 -5195 Sep 30 j 03:25 $0^{\circ}\Omega$ min. Earth dist. -5189 Aug 30 j 12:17 28°정44'39 4.06076 AU -5194 Jan 06 j 02:13 12°**Ω**15′09 -5189 Oct 28 j 19:56 23°♂37'24 retrograde direct 7°**Ω**23'34 2°05'31 opposition -5194 Mar 08 j 00:49 -5188 Jan 01 j 22:55 0°≈ min. Earth dist. -5194 Mar 09 j 04:45 7°**Ω**14'43 4.32210 AU evening set -5188 Mar 02 j 18:20 12°≈46'21 direct -5194 May 09 j 08:59 2°**£**24'57 -5188 Mar 12 j 09:49 15°≈ -5194 Aug 18 j 02:55 $15^{\circ}\Omega$ evening set -5194 Sep 12 j 07:08 $20^{\circ}\Omega$ 31'02 conjunction -5188 Mar 16 j 10:54 15°≈56'13 -1°-21'-47 max. Earth dist. -5194 Sep 23 j 07:15 23°**Ω**00'42 6.27997 AU minimum elong -5188 Mar 16 j 10:57 15°≈56'14 1°22'01 max. Earth dist. -5188 Mar 18 j 05:12 16°**≈**20'42 6.09761 AU conjunction -5194 Sep 24 j 18:42 23°**Q**20'52 1°18'48 morning rise -5188 Mar 30 j 04:54 19°**≈**06'40 minimum elong -5194 Sep 24 j 18:45 23°**Q**20'53 1°19'00 -5188 May 20 j 02:28 0°**)**€ morning rise -5194 Oct 07 j 05:36 26° € 10'29 retrograde -5188 Aug 05 j 16:47 8°**¥**25'47 -5194 Oct 24 j 10:00 0° m min. Earth dist. -5188 Oct 03 j 03:06 3°**升**29'17 4.14533 AU retrograde -5193 Feb 08 j 17:30 14° mp 15'25 opposition -5188 Oct 04 j 00:58 3°**升**21′50 -1°-44′-43 opposition -5193 Apr 10 j 21:30 9°**m** 22'12 1°36'50 -5188 Oct 31 j 05:19 30°R≈ min. Earth dist. -5193 Apr 11 j 19:04 9° m 15'20 4.23261 AU direct -5188 Dec 01 j 23:59 28°≈20'55 direct -5193 Jun 11 i 08:56 4° m 26'24 -5187 Jan 03 i 03:00 0°**∀** evening set -5193 Oct 14 j 01:38 22° m 48'31 evening set -5187 Apr 08 j 02:08 17° **¥** 10'42 -5193 Oct 26 j 15:45 25° mp 43'29 0°47'08 -5187 Apr 21 j 20:26 20° ¥ 17'06 0°-53'-30 conjunction conjunction -5193 Oct 26 j 15:48 25° mp 43'30 0°47'10 minimum elong -5187 Apr 21 j 20:30 20°**)** € 17'09 0°53'35 minimum elong -5193 Oct 25 j 19:40 25° m 31'49 -5187 Apr 22 j 22:30 20°**)** € 31'50 max. Earth dist. 6.18153 AU max. Earth dist. 6.19660 AU morning rise -5193 Nov 08 j 06:47 28° m 39'08 -5187 May 05 j 14:18 23°**₭**23'03 morning rise -5193 Nov 14 j 03:30 0°**♀** -5187 Jun 05 j 01:48 0°**Υ** -5192 Mar 14 j 23:54 17°**♀**35'50 -5187 Sep 07 j 12:33 11°**Υ**44'50 retrograde retrograde -5192 May 15 j 03:33 12°**2**39'26 0°35'32 -5187 Nov 05 j 21:33 6°**Y**44'03 0°-47'-37 opposition opposition 6°**Υ**47'23 4.24808 AU min. Earth dist. -5192 May 15 j 09:53 12°**2**37'23 4.13152 AU min. Earth dist. -5187 Nov 05 j 11:40 -5192 Jul 14 j 06:43 7°**♀**45'52 -5186 Jan 05 j 01:46 1°**Y**40′50 direct direct -5192 Nov 15 j 05:54 26°**£**28'56 -5186 May 12 j 22:48 20°**Υ**06'54 evening set evening set -5192 Nov 19 j 14:45 27°**♀**30'34 desc. node -5186 May 26 j 13:33 23°**Υ**07'43 0°-8'-38 conjunction conjunction -5192 Nov 28 j 02:05 29°**△**30'37 0°-1'-7 minimum elong -5186 May 26 j 13:34 23°**Υ**07'43 0°08'33 -5192 Nov 28 j 02:03 29°**♀**30'36 0°01'15 behind sun begin -5186 May 26 j 06:24 23°**Y**03'46 minimum elong behind sun begin -5192 Nov 27 j 17:58 29°**£**25'51 behind sun end -5186 May 26 j 20:44 23°**Υ**11'41 behind sun end -5192 Nov 28 j 10:08 29°**♀**35'21 max. Earth dist. -5186 May 26 j 16:12 23°**Υ**09'10 6.29581 AU -5192 Nov 28 j 04:06 29°**2**31'45 6.08746 AU -5186 Jun 09 j 01:50 26°**Υ**07'11 max. Earth dist. morning rise -5192 Nov 30 j 03:47 -5186 Jun 26 j 23:30 0°⊌ 0°M -5192 Dec 11 j 00:48 -5186 Aug 06 j 05:02 7°**と**45'39 morning rise 2°MJ33'46 asc. node -5191 Feb 07 j 02:21 15°M -5186 Oct 09 j 02:23 13°840'37 retrograde -5191 Apr 20 j 15:38 22°M 19'48 retrograde opposition -5186 Dec 07 i 16:37 8°843'47 0°21'39 -5191 Jun 20 i 10:24 17° ML19'25 0°-40'-50 opposition min. Earth dist. -5186 Dec 07 j 22:36 8°841'48 4.33501 AU min. Earth dist. -5191 Jun 19 j 23:56 17° ML22'51 4.05257 AU direct -5185 Feb 07 i 03:42 3°\(\mathbf{8}\)39'54 -5191 Jul 08 j 20:22 15°RM -5185 May 13 j 22:54 15°8 direct -5191 Aug 18 j 07:51 12°M26'24 -5185 Jun 15 j 04:44 21°**8**46'40 evening set -5191 Sep 27 i 03:08 15°M -5191 Dec 13 j 21:14 -5185 Jun 28 j 11:13 24°**8**41'18 0°37'40 0°×7 conjunction -5191 Dec 20 j 05:25 -5185 Jun 28 j 11:10 24°**8**41'16 0°37'53 evening set 1°×29'34 minimum elong -5185 Jun 27 j 14:49 24°**8**30'05 6.36369 AU max. Earth dist. conjunction -5190 Jan 02 j 09:14 4°**₹**37'01 0°-50'-10 morning rise -5185 Jul 11 j 14:24 27°**8**34'15 minimum elong -5190 Jan 02 j 09:10 4°**∡**36'59 0°50'26 -5185 Jul 22 j 19:36 $0^{\circ}\Pi$ max. Earth dist. -5190 Jan 03 j 12:01 4°**х** 52′56 6.03077 AU retrograde -5185 Nov 09 j 00:53 14°**Д**41'13 7°**∡**¹46'16 -5190 Jan 15 j 16:18 -5184 Jan 08 j 02:07 9°**Ⅲ**47'38 1°22'42 morning rise opposition -5190 May 27 j 17:44 27°**尽** 59'19 -5184 Jan 08 j 21:27 9°**Ⅱ**41'22 4.38022 AU retrograde min. Earth dist. -5190 Jul 26 j 22:25 22° ₹ 55'36 -1°-43'-56 -5184 Mar 10 j 10:16 4°**Ⅱ**44'32 opposition direct -5190 Jul 25 j 22:45 23°**尽** 03'33 4.02546 AU -5184 Jul 16 j 03:18 22°**Ⅲ**41'35 min. Earth dist. evening set direct -5190 Sep 23 j 01:14 18° ₹ 01'04 max. Earth dist. -5184 Jul 27 j 13:31 25°**Ⅲ**12'16 6.38174 AU -5190 Dec 24 j 19:58 0°ರ evening set -5189 Jan 25 j 17:48 7°**る**15'01 conjunction -5184 Jul 29 j 00:19 25°**Ⅲ**31'28 1°12'23 minimum elong -5184 Jul 29 j 00:16 25°**Ⅲ**31'26 1°12'41 -5189 Feb 08 j 04:41 10° **පි**25'19 -1°-21'-9 -5184 Aug 10 j 18:01 28°**Ⅲ**19'48 conjunction morning rise

-5184 Aug 18 j 09:53

-5189 Feb 08 j 04:39 10°**ჳ**25'18 1°21'28

minimum elong

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5184 in astronomical counting style is the year 5185 BCE in historical counting style. -5184 Dec 09 j 06:17 15°\$25'50 direct -5178 Sep 28 j 04:07 23° ₹ 14'56 retrograde 0°ರ opposition -5183 Feb 07 j 19:24 10°534'09 2°00'05 -5178 Dec 03 j 20:06 min. Earth dist. -5183 Feb 08 j 23:18 10°525'15 4.37137 AU -5177 Jan 31 j 01:11 12°₹30'05 evening set -5183 Apr 11 j 10:59 direct 5°**©**33'05 evening set -5183 Aug 16 j 08:16 23°531'06 conjunction -5177 Feb 13 j 13:11 15°**⋜**40'38 -1°-23'-11 minimum elong -5177 Feb 13 j 13:09 15°**⋜**40'37 max. Earth dist. -5183 Aug 27 j 04:31 25°556'05 6.34530 AU 1°23'28 -5177 Feb 15 j 09:37 16°**る**06'48 max. Earth dist. 6.03847 AU -5177 Feb 27 j 03:54 18°**⋜**52'32 conjunction -5183 Aug 28 j 22:05 26°519'19 1°26'37 morning rise minimum elong -5183 Aug 28 j 22:04 26°9519'19 1°26'53 -5177 Apr 19 j 05:48 0°≈ morning rise -5183 Sep 10 j 09:54 29°506'38 retrograde -5177 Jul 08 j 02:56 8°≈51'16 -5183 Sep 14 j 10:13 0 $^{\circ}\Omega$ opposition -5177 Sep 05 j 17:10 3°**≈**46′04 -2°-7'-8 -5183 Dec 09 j 02:19 15°**Ω** -5177 Sep 04 j 13:31 min. Earth dist. 3°≈55'30 4.07038 AU -5182 Jan 10 j 13:37 16° **Ω**36'14 -5177 Oct 07 j 06:13 retrograde 30°Ŗる -5182 Feb 12 j 06:40 15°R**Ω** direct -5177 Nov 02 j 22:47 28°る47'56 opposition -5182 Mar 12 j 12:19 11° **Ω**44'32 2°03'48 -5177 Nov 29 j 19:21 0°≈ min. Earth dist. -5182 Mar 13 j 17:09 $11^{\circ} \Omega 35'22$ 4.31022 AU -5176 Feb 24 j 05:57 15°≈ direct -5182 May 13 j 18:55 6°**Ω**46'11 evening set -5176 Mar 08 j 01:00 17°≈54'29 -5182 Jul 31 j 10:12 15°**Ω** evening set -5182 Sep 16 j 12:44 $24^{\circ}\Omega 54'52$ conjunction -5176 Mar 21 j 17:59 21°≈03'57 -1°-19'-15 max. Earth dist. -5182 Sep 27 j 14:22 $27^{\circ}\Omega 25'53$ 6.26420 AU minimum elong -5176 Mar 21 j 18:02 21°≈03'59 max. Earth dist. -5176 Mar 23 j 10:58 21°≈27'35 6.11138 AU conjunction -5182 Sep 29 i 00:34 $27^{\circ}\Omega 45'24$ 1°15'50 morning rise -5176 Apr 04 i 12:21 24°≈13'53 minimum elong $-5182 \text{ Sep } 29 \text{ i } 00:37 \quad 27^{\circ} \Omega 45'25$ 1°16'01 -5176 Apr 30 i 09:24 0°**)**€ -5182 Oct 08 i 20:38 0° m retrograde -5176 Aug 10 j 10:34 13° + 24'23 morning rise -5182 Oct 11 j 11:41 0°m/35'48 opposition -5176 Oct 08 j 19:44 8°\(\frac{1}{20'44}\) -1°-38'-7 -5181 Feb 13 j 10:10 18° mp 48'44 min. Earth dist. -5176 Oct 07 j 22:20 8°**¥**28′02 4.16143 AU retrograde opposition -5181 Apr 15 j 14:35 13° m 55'12 1°30'12 -5176 Dec 06 j 22:05 3°**)** 19′24 direct -5181 Apr 16 j 10:33 13° Mp 48'50 4.21394 AU -5175 Apr 13 j 03:38 22° ₭ 05'03 min. Earth dist. evening set -5181 Jun 15 j 20:33 8°**m** 59'47 direct -5181 Oct 18 j 12:35 27° m 26'35 -5175 Apr 26 j 21:45 25° **米** 10'39 0°-47'-44 conjunction evening set -5181 Oct 29 j 12:26 0∘∙თ minimum elong -5175 Apr 26 j 21:49 25°**米** 10'41 0°47'48 -5181 Oct 30 j 08:49 0°**£**11'53 6.16164 AU -5175 Apr 27 j 20:41 25°**∺**23'34 max. Earth dist. max. Earth dist. 6.21365 AU morning rise -5175 May 10 j 15:04 28° **★** 15'39 -5181 Oct 31 j 03:20 0°**2**22'41 0°41'14 -5175 May 18 j 10:58 0°**Υ** conjunction -5181 Oct 31 j 03:23 -5175 Sep 12 j 02:40 16° \cdot \cdot 28'54 minimum elong 0°**£**22'43 0°41'16 retrograde -5181 Nov 12 j 19:27 -5175 Nov 10 j 11:21 11°**Υ**28'41 0°-37'-58 morning rise 3°**₽**19'40 opposition -5180 Mar 20 j 01:32 22°**£**26'10 -5175 Nov 10 j 04:24 11°**Υ**31'02 4.26418 AU retrograde min. Earth dist. opposition -5180 May 20 j 02:56 17°**£**29'14 0°25'22 direct -5174 Jan 09 j 21:27 6°**Υ**25'18 min. Earth dist. -5180 May 20 j 07:27 17°**2**27'47 4.11185 AU evening set -5174 May 17 j 17:59 24°**Υ**47'26 direct -5180 Jul 19 j 01:24 12°**♀**35'51 desc. node -5180 Sep 29 j 18:02 20°**♀**15'20 conjunction -5174 May 31 j 07:49 27°**Υ**47'18 0°-1'-49 -5180 Nov 14 j 00:18 -5174 May 31 j 07:48 27°**Υ**47'17 minimum elong -5180 Nov 20 j 00:34 behind sun begin -5174 May 30 j 23:32 27°**Y**42'44 evening set 1°M24'33 behind sun end -5174 May 31 j 16:05 27°**Υ**51'51 -5180 Dec 02 j 22:00 4°ML27'31 0°-8'-19 max. Earth dist. -5174 May 31 j 07:00 27°**Υ**'46'53 6.30966 AU conjunction -5180 Dec 02 j 22:00 -5174 Jun 10 i 07:53 0°℃ minimum elong 4°M27'31 0°08'29 behind sun begin -5180 Dec 02 j 14:53 4°ML23'19 morning rise -5174 Jun 13 i 18:56 0°845'42 behind sun end -5180 Dec 03 i 05:07 4°MJ31'42 asc. node -5174 Jun 15 i 06:50 1°805'25 max. Earth dist. -5180 Dec 03 i 04:24 4°**ጤ**31'17 6.07003 AU -5174 Aug 28 j 11:59 15°8 -5180 Dec 15 j 22:02 7°MJ32'02 -5174 Oct 13 j 10:44 18°813'26 morning rise retrograde -5179 Jan 17 j 20:05 15°M -5174 Nov 28 j 20:31 15°R8 -5179 Apr 25 j 22:14 27° M26'09 -5174 Dec 12 j 03:12 13°817'07 0°31'13 retrograde opposition -5179 Jun 25 j 14:20 22°M25'17 0°-51'-12 min. Earth dist. -5174 Dec 12 j 10:48 13°**8**14'36 4.34576 AU opposition min. Earth dist. -5179 Jun 25 j 01:20 22°M29'35 4.03931 AU direct -5173 Feb 11 j 17:29 8°813'14 -5173 Apr 24 j 02:18 15°**႘** direct -5179 Aug 23 j 07:14 17°M32'16 -5179 Nov 26 j 07:54 0°×7 evening set -5173 Jun 19 j 18:35 26°**8**17'40 -5179 Dec 25 j 08:13 6°**х** 39'49 evening set -5173 Jul 02 j 23:42 29°**8**11'28 0°43'31 conjunction -5178 Jan 07 j 13:03 9°**х** 48'06 0°-56'-1 -5173 Jul 02 j 23:39 29°**8**11'26 conjunction minimum elong 0°43'45 -5178 Jan 07 j 12:59 9°**∡**¹48'04 max. Earth dist. -5173 Jul 02 j 00:43 28°858'50 6.37053 AU minimum elong 0°56'18 -5178 Jan 08 j 18:11 10°**尽** 05'27 6.02264 AU -5173 Jul 06 j 15:59 max. Earth dist. Π $^{\circ}0$ morning rise -5178 Jan 20 j 21:26 12° ₹ 58'15 morning rise -5173 Jul 16 j 01:26 2°**Ⅱ**03'33 -5178 Apr 16 j 20:39 0°ಕ retrograde -5173 Nov 13 j 10:13 19°**Ⅲ**08'36 retrograde -5178 Jun 01 j 23:38 3°**る**13'59 opposition -5172 Jan 12 j 12:34 14°**Ⅱ**15'27 1°29'41 -5178 Jul 18 j 04:42 30°R ⊀ min. Earth dist. -5172 Jan 13 j 10:03 14°**Ⅲ**08'30 4.38285 AU min. Earth dist. -5178 Jul 31 j 00:49 28° **₹** 18'37 4.02349 AU -5172 Mar 14 j 23:12 9°**Ⅱ**12'35 direct -5178 Aug 01 j 02:49 28°**✗** 09'50 -1°-50'-6 -5172 Jul 20 j 13:31 27°**Ⅲ**09'04 opposition evening set

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 21 Attention, astronomical year style is used: The year -5172 in astronomical counting style is the year 5173 BCE in historical counting style.

Attention, astronom	ical year style is used: The			unting style is the year	5173 BCE in historical	counting style.	
max. Earth dist.	-5172 Jul 31 j 19:32	29° Ⅱ 37'41	6.37968 AU	minimum elong	-5166 Jan 12 j 17:24	14° ₹ ′59′09	1°01'45
				max. Earth dist.	-5166 Jan 14 j 03:07	15° ₹ 19'12	6.02347 AU
conjunction	-5172 Aug 02 j 09:17	29° Ⅱ 58'31	1°15'47	morning rise	-5166 Jan 26 j 02:40	18° ≯ 09'38	
minimum elong	-5172 Aug 02 j 09:14	29° Ⅱ 58'30	1°16'04		-5166 Mar 21 j 09:19	0° ප	
	-5172 Aug 02 j 11:58	0 \circ \odot		retrograde	-5166 Jun 07 j 04:26	8° る 24'06	
morning rise	-5172 Aug 15 j 02:02	2° 5 46'30		min. Earth dist.	-5166 Aug 05 j 02:55	3° る 28'30	4.02951 AU
retrograde	-5172 Dec 13 j 18:07	19° © 54'38		opposition	-5166 Aug 06 j 05:09	3° る 19'38	-1°-55'-18
opposition	-5171 Feb 12 j 08:27	15° 5 03'02	2°02'48		-5166 Sep 02 j 08:33	30°₽ ⋌ ¹	
min. Earth dist.	-5171 Feb 13 j 13:03	14° © 53'54	4.36502 AU	direct	-5166 Oct 03 j 06:39		
direct	-5171 Apr 15 j 23:15	10° 5 02'16			-5166 Nov 03 j 03:48	0°ප	
evening set	-5171 Aug 20 j 17:30			evening set	-5165 Feb 05 j 06:08	17° る 37'55	
	-5171 Aug 29 j 13:44	$0^{\circ}\Omega$					
max. Earth dist.	-5171 Aug 31 j 14:37	0° Ω 27'23	6.33514 AU	conjunction	-5165 Feb 18 j 18:48		-1°-24'-32
				minimum elong	-5165 Feb 18 j 18:47		1°24'49
conjunction	-5171 Sep 02 j 06:51	0° Ω 49'57	1°26'38	max. Earth dist.	-5165 Feb 20 j 15:11		6.04870 AU
minimum elong	-5171 Sep 02 j 06:51	0° Ω 49'57	1°26'54	morning rise	-5165 Mar 04 j 10:19	23° る 59'59	
morning rise	-5171 Sep 14 j 18:06	3° Ω 37'27			-5165 Mar 30 j 21:16	0° ≈	
	-5171 Nov 09 j 19:02	15° Ω		retrograde	-5165 Jul 12 j 23:18	13° ≈ 52′09	
retrograde	-5170 Jan 15 j 06:04	21° Ω 12'31		min. Earth dist.	-5165 Sep 09 j 09:52	8° ≈ 56'33	4.08384 AU
opposition	-5170 Mar 17 j 05:50	16° Ω 20'43	2°01'17	opposition	-5165 Sep 10 j 13:50	8° ≈ 47'00	-2°-5'-34
min. Earth dist.	-5170 Mar 18 j 10:00	16° Ω 11'46	4.29697 AU	direct	-5165 Nov 07 j 21:04	3° ≈ 48′21	
	-5170 Mar 27 j 23:09	15°R Ω			-5164 Feb 06 j 10:09	15° ≈	
direct	-5170 May 18 j 09:16	11° Ω 22'49		evening set	-5164 Mar 13 j 03:16	22° ≈ 51′29	
	-5170 Jul 07 j 13:48	15° Ω					
evening set	-5170 Sep 21 j 00:11	29° Ω 34'12		conjunction	-5164 Mar 26 j 20:38	26°≈00'25	-1°-16'-15
-	-5170 Sep 22 j 21:35	0° m)		minimum elong	-5164 Mar 26 j 20:42	26° ≈ 00′28	1°16'26
max. Earth dist.	-5170 Oct 02 j 02:20	2° 1006'06	6.24902 AU	max. Earth dist.	-5164 Mar 28 j 11:04	26° ≈ 22'30	6.12680 AU
	, ,	• • • • • • • • • • • • • • • • • • • •		morning rise	-5164 Apr 09 j 15:04		
conjunction	-5170 Oct 03 j 12:01	2° m 25'23	1°12'15		-5164 Apr 13 j 07:39	0° ∀	
minimum elong	-5170 Oct 03 j 12:05	2° m) 25'25	1°12'24	retrograde	-5164 Aug 15 j 02:31		
morning rise	-5170 Oct 15 j 23:44	5° m) 16'39	1 1221	opposition	-5164 Oct 13 j 10:36		-1°-31'-5
retrograde	-5169 Feb 18 j 10:04	23° m/37'18		min. Earth dist.	-5164 Oct 12 j 16:03		4.17703 AU
opposition	-5169 Apr 20 j 13:43	18° m) 43'21	1°22'34	direct	-5164 Dec 11 j 18:21	8° ¥ 06'39	1.17703710
min. Earth dist.	-5169 Apr 21 j 07:45	18° m) 37'35	4.19787 AU	evening set	-5163 Apr 18 j 00:57		
direct	-5169 Jun 20 j 15:23	13°M)48'16	4.19787 AU	evening set	-5105 Apr 18 j 00.57	20 /(4037	
direct	-5169 Oct 13 j 03:48	0° ⊽		conjunction	-5163 May 01 j 18:53	20°¥ 52!21	0° 41' 51
evening set	-5169 Oct 23 j 04:28	0 = 2° £ 18'30		minimum elong	-5163 May 01 j 18:56		0°41'54
evening set	-3109 Oct 23 J 04.28	2 = 10 30		minimum clong	-5163 May 02 j 06:26	29 γ (33 33	0 41 34
conjunction	-5169 Nov 04 j 20:12	50 0 15120	0024147	max. Earth dist.	-5163 May 02 j 06.26		6 22020 AII
5							0.22829 AU
minimum elong	-5169 Nov 04 j 20:14	5° £ 15'40	0°34'47	morning rise	-5163 May 15 j 11:34	2° Y 57'38 21° Y 03'40	
max. Earth dist.	-5169 Nov 04 j 06:14	5° Ω 07'29	6.14651 AU	retrograde	-5163 Sep 16 j 11:46	16° Υ 04'01	00 201 25
morning rise	-5169 Nov 17 j 13:13	8° £ 13'42		opposition	-5163 Nov 14 j 21:43		0°-28'-25
retrograde	-5168 Mar 25 j 06:10		001.4122	min. Earth dist.	-5163 Nov 14 j 16:17		4.27665 AU
opposition	-5168 May 25 j 06:44		0°14'33	direct	-5162 Jan 14 j 10:53		
min. Earth dist.	-5168 May 25 j 08:32		4.09917 AU	asc. node	-5162 Apr 25 j 08:22	23°Υ33'24	
direct	-5168 Jul 24 j 00:23	17° £ 37'17		evening set	-5162 May 22 j 10:14		
desc. node	-5168 Aug 08 j 16:26	18° ≏ 01'24			-5162 May 25 j 10:47	9° 8	
	-5168 Oct 27 j 14:25	0°M			51/01 01:00 =0	20 1 2012	000 417.7
evening set	-5168 Nov 24 j 22:45	6°M28'47		conjunction	-5162 Jun 04 j 22:58		0°04'55
	51 CO T	00144	00.15: 50	minimum elong	-5162 Jun 04 j 22:59	2° 8 19'13	0°05'02
conjunction	-5168 Dec 07 j 21:02	9°M32'33	0°-15'-39	behind sun begin	-5162 Jun 04 j 14:59	2° 8 14'49	
minimum elong	-5168 Dec 07 j 21:01	9°M32'33	0°15'50	behind sun end	-5162 Jun 05 j 06:58	2° 8 23'36	
behind sun begin	-5168 Dec 07 j 19:19	9°M31'32		max. Earth dist.	-5162 Jun 04 j 17:37	2° 8 16'17	6.31908 AU
behind sun end	-5168 Dec 07 j 22:43	9°M33'33		morning rise	-5162 Jun 18 j 09:05	5° 8 16'49	
max. Earth dist.	-5168 Dec 08 j 06:18	9°M38'02	6.06098 AU		-5162 Aug 04 j 18:12		
morning rise	-5168 Dec 20 j 22:23	12°M38'01		retrograde	-5162 Oct 17 j 20:08		
	-5168 Dec 31 j 01:19			opposition	-5162 Dec 16 j 12:21		0°40'22
	-5167 Mar 20 j 16:29	0° ∡ ¹		min. Earth dist.	-5162 Dec 16 j 23:06		4.35157 AU
retrograde	-5167 May 01 j 03:58	2° ∡ ³36'36			-5161 Jan 07 j 15:46		
	-5167 Jun 11 j 18:37			direct	-5161 Feb 16 j 06:39	12° 8 41'06	
opposition	-5167 Jun 30 j 19:21	27°M35'08	-1°-1'-18		-5161 Mar 28 j 05:20	15° 8	
min. Earth dist.	-5167 Jun 30 j 03:09	27°M40'30	4.03505 AU		-5161 Jun 20 j 20:23	$\Pi^{\circ}0$	
direct	-5167 Aug 28 j 09:12	22°M41'56		evening set	-5161 Jun 24 j 06:39	0° Ⅱ 44'45	
	-5167 Nov 06 j 03:28	0° ∡ ¹		max. Earth dist.	-5161 Jul 06 j 09:07	3° Ⅱ 23'58	6.37215 AU
evening set							
	-5167 Dec 30 j 11:30	11° ≯ ′50′30					
	-5167 Dec 30 j 11:30	11° ∡ 750′30		conjunction	-5161 Jul 07 j 10:35	3° Ⅱ 37′58	0°49'01
conjunction	-5167 Dec 30 j 11:30 -5166 Jan 12 j 17:28		-1°-1'-28	conjunction minimum elong	-5161 Jul 07 j 10:35 -5161 Jul 07 j 10:32	3°П37'58 3°П37'56	0°49'01 0°49'16

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5161 in astronomical counting style is the year 5162 BCE in historical counting style. -5161 Jul 20 j 11:00 6°**Ц**29'28 -5155 Oct 08 j 23:12 0°**∡**¹ morning rise -5161 Nov 17 j 18:48 23°**Д**34'31 -5154 Jan 04 j 13:36 16° **₹** 57'45 retrograde evening set opposition -5160 Jan 16 j 22:58 18°**Ⅲ**41'42 1°36'05 -5154 Jan 17 j 20:24 20° **₹** 06'44 -1°-6'-23 -5160 Jan 17 j 21:08 18°**Д**34'32 4.38062 AU min. Earth dist. conjunction -5160 Mar 19 j 09:32 -5154 Jan 17 j 20:20 20° **₹** 06'41 direct 13°**Ⅲ**39′06 minimum elong 1°06'41 -5160 Jul 17 j 14:43 -5154 Jan 19 j 07:23 20°**尽**27'29 0.ಎ max. Earth dist. 6.02515 AU -5154 Jan 31 j 06:42 23°**尽** 17'30 evening set -5160 Jul 24 j 23:46 1°936'31 morning rise max. Earth dist. -5154 Mar 01 j 15:34 -5160 Aug 05 j 04:22 4°904'39 6.37374 AU ਾਤ -5154 Jun 12 j 04:55 13°₹30'25 retrograde conjunction -5160 Aug 06 j 18:25 4°**©**25'43 1°18'42 min. Earth dist. -5154 Aug 10 j 01:30 8°**る**35'06 4.03517 AU minimum elong -5160 Aug 06 j 18:23 4°925'42 1°18'59 opposition -5154 Aug 11 j 05:15 8°**る**25'42 -1°-59'-35 -5160 Aug 19 j 10:07 -5154 Oct 08 j 05:29 morning rise 7°513'31 direct 3°**る**29'59 -5153 Feb 10 j 09:47 22°₹42'36 retrograde -5160 Dec 18 j 07:44 24°524'58 evening set opposition -5159 Feb 16 j 22:30 19°533'33 2°04'46 min. Earth dist. -5159 Feb 18 j 03:53 19°**©**24'11 4.35592 AU conjunction -5153 Feb 23 j 23:15 25°**궁**52'55 -1°-25'-16 direct -5159 Apr 20 j 12:47 14°533'13 minimum elong -5153 Feb 23 j 23:15 25°**⋜**52'55 1°25'33 -5159 Aug 13 j 11:41 $0^{\circ}\Omega$ max. Earth dist. -5153 Feb 25 j 19:05 26°♂18'35 6.05770 AU evening set -5159 Aug 25 j 03:48 2°**Ω**34'29 morning rise -5153 Mar 09 j 15:17 29°**⋜**04'24 max. Earth dist. -5159 Sep 04 j 23:59 5°**Ω**00'17 6.32354 AU -5153 Mar 13 j 15:22 -5153 May 28 j 13:31 15°≈ conjunction -5159 Sep 06 j 16:36 5°**Ω**23'07 1°26'06 retrograde -5153 Jul 17 j 20:22 18°≈50'42 minimum elong -5159 Sep 06 i 16:36 5°**Ω**23'07 1°26'21 -5153 Sep 06 i 05:21 15°R≈ morning rise -5159 Sep 19 i 03:43 8°Ω11'01 min. Earth dist. -5153 Sep 14 i 06:53 13°≈54'37 4.09512 AU $-5159 \text{ Oct } 20 \text{ i } 18:42 \text{ } 15^{\circ}\Omega$ opposition -5153 Sep 15 i 09:04 13°≈45'40 -2°-3'-11 retrograde -5158 Jan 20 j 00:24 25° Ω 51'58 direct -5153 Nov 12 j 20:04 8°≈46'31 -5158 Mar 22 j 00:58 $20^{\circ}\Omega$ 59'58 1° 57'55 -5152 Jan 16 j 12:34 opposition 15°≈ -5158 Mar 23 j 03:28 $20^{\circ}\Omega$ 51'32 4.28368 AU -5152 Mar 18 j 04:56 27°≈47'15 min. Earth dist. evening set -5158 May 23 j 00:37 16° **Ω**02'31 -5152 Mar 27 j 21:17 direct 0°**∀** -5158 Sep 06 j 09:36 0° m -5158 Sep 25 j 12:28 -5152 Mar 31 j 22:48 0°**¥**55'50 -1°-12'-45 evening set 4° m 16'19 conjunction -5158 Oct 06 j 19:02 -5152 Mar 31 j 22:51 max. Earth dist. 6° Mp 51'10 6.23536 AU minimum elong 0°**¥**55'52 1°12'55 -5152 Apr 02 j 11:52 max. Earth dist. 1° **€** 17'04 6.13956 AU -5158 Oct 08 j 00:42 7° m 08'13 1°08'08 conjunction -5152 Apr 14 j 17:15 4°**)**(04'34 morning rise -5158 Oct 08 j 00:46 7° mp 08'15 1°08'15 -5152 Aug 19 j 17:01 22° ¥ 58'53 minimum elong retrograde -5158 Oct 20 j 12:44 10° m 00'14 -5152 Oct 17 j 07:25 18° **★** 02'01 4.18995 AU morning rise min. Earth dist. -5157 Feb 23 j 10:05 28° m 27'56 -5152 Oct 18 j 00:54 17° **★** 56'05 -1°-23'-31 retrograde opposition -5157 Apr 25 j 13:47 23° m 33'35 1°14'17 opposition direct -5152 Dec 16 j 11:24 12° **★** 53'59 min. Earth dist. -5157 Apr 26 j 05:57 23° m 28'25 4.18463 AU -5151 Apr 15 j 22:01 $0^{\circ}\Upsilon$ -5157 Jun 25 j 11:36 18° Mp 38'56 evening set -5151 Apr 22 j 22:29 1°Y33'16 direct -5157 Sep 25 j 17:44 0∘**⊽** evening set -5157 Oct 27 j 21:04 7°**£**11'28 conjunction -5151 May 06 j 15:55 4°Υ37'30 0°-35'-42 -5151 May 06 j 15:58 4°Υ37'32 0°35'42 minimum elong -5157 Nov 09 j 13:25 10°**♀**09'25 0°28'04 max. Earth dist. -5151 May 07 j 07:04 4°**Y**45'59 6.24042 AU conjunction -5157 Nov 09 j 13:27 10°**♀**09'26 0°28'02 -5151 May 20 j 08:10 7°**Y**40′53 minimum elong morning rise -5157 Nov 09 j 01:36 10°**♀**02'30 -5151 Sep 20 j 23:24 25°**Y**40'39 max. Earth dist. 6.13483 AU retrograde -5157 Nov 22 i 07:36 13°**♀**08'29 -5151 Nov 19 i 09:04 20°**Υ**'41'31 0°-18'-38 morning rise opposition -5151 Nov 19 i 06:43 20°γ42'18 4.28685 AU -5156 Feb 18 i 17:40 min. Earth dist. -5150 Jan 19 i 03:05 15°**Υ**'37'47 retrograde -5156 Mar 30 i 08:50 2°M28'55 direct -5150 Mar 04 i 18:12 18°**Υ**33'21 -5156 May 10 j 08:18 30°R <u>♀</u> asc. node -5156 May 30 i 09:38 27° \(\Omega\) 30'53 0°03'38 -5150 May 08 j 22:08 0°8 opposition min. Earth dist. -5156 May 30 j 08:07 27°**2**31'22 4.08988 AU -5150 May 27 j 03:04 3°**8**55'34 evening set desc. node -5156 Jun 18 j 03:39 25° **2**10'43 direct -5156 Jul 28 j 23:05 22°**♀**37'50 conjunction -5150 Jun 09 j 14:57 6°853'55 0°11'34 -5156 Oct 07 j 19:42 0° M minimum elong -5150 Jun 09 j 14:56 6°**8**53'55 0°11'43 evening set -5156 Nov 29 j 20:24 11°M31'15 behind sun begin -5150 Jun 09 j 09:13 6°**8**50'46 behind sun end -5150 Jun 09 j 20:38 6°857'03 conjunction max. Earth dist. -5150 Jun 09 j 07:28 6°**8**49'48 6.32665 AU -5156 Dec 12 j 19:49 14°M35'44 0°23'02 -5150 Jun 22 j 23:42 9°**8**50'41 minimum elong morning rise -5156 Dec 13 j 09:58 14°ML44'09 6.05492 AU -5150 Jul 17 j 01:34 15°8 max. Earth dist. -5156 Dec 14 j 12:40 15°M -5150 Oct 22 j 04:25 27°**8**11'14 retrograde morning rise -5156 Dec 25 j 22:07 17°M41'56 opposition -5150 Dec 20 j 22:41 22°**8**15'56 0°49'25 -5155 Feb 20 j 20:04 0°**∡** min. Earth dist. -5150 Dec 21 j 10:21 22°**8**12'06 4.35622 AU retrograde -5155 May 06 j 10:04 7°**∡**¹43'47 direct -5149 Feb 20 j 18:25 17°**8**12'14 opposition -5155 Jul 05 j 22:34 2°**∡**'41'50 -1°-10'-50 -5149 Jun 04 j 03:04 Π °0 min. Earth dist. -5155 Jul 05 j 05:23 2°**х** 47'33 4.03291 AU evening set -5149 Jun 28 j 20:04 5°**Ⅱ**15'16 -5155 Jul 27 j 11:28 30°RM direct -5155 Sep 02 j 10:33 27°ML48'28 -5149 Jul 11 j 22:32 8°**Д**07'50 0°54'19 conjunction

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5149 in astronomical counting style is the year 5150 BCE in historical counting style. 8°**I**07'48 0°54'35 -5149 Jul 11 j 22:29 -5143 Feb 01 i 02:50 0°**∡**¹ minimum elong -5149 Jul 10 j 18:07 7°**Ⅲ**52'12 -5143 May 11 j 10:42 12° ₹ 43'48 max. Earth dist. 6 37351 AU retrograde -5149 Jul 24 j 21:44 10° **I** 58'44 -5143 Jul 10 j 22:43 7°**∡**1'24 opposition -1°-19'-39 morning rise -5149 Nov 22 j 06:40 28°**Д**03'46 7°**∡**747'54 4.03126 AU min. Earth dist. -5143 Jul 10 j 03:12 retrograde -5143 Sep 07 j 07:07 2°**∡**¹47'49 -5148 Jan 21 j 11:00 23° **Ⅱ**11'16 1°42'04 opposition direct -5148 Jan 22 j 11:10 23°**Д**03'28 4.37892 AU -5142 Jan 09 j 13:33 21°**尽** 58'02 min. Earth dist. evening set direct -5148 Mar 23 j 23:48 18°**Ⅲ**08'56 -5148 Jun 30 j 16:49 -5142 Jan 22 j 21:20 25° ₹07'21 -1°-10'-43 0ಂಲ conjunction -5142 Jan 22 j 21:16 25°**尽** 07'18 evening set -5148 Jul 29 j 10:43 6°9506'41 minimum elong 1°11'00 max. Earth dist. -5148 Aug 09 j 13:55 8°**©**34'17 6.36906 AU max. Earth dist. -5142 Jan 24 j 09:46 25°**尽** 28'58 6.02652 AU morning rise -5142 Feb 05 j 08:26 28° ₹ 18'23 -5148 Aug 11 j 04:24 -5142 Feb 12 j 14:12 conjunction 8°**©**55'38 1°21'14 0°ಕ -5148 Aug 11 j 04:22 -5142 Jun 17 j 04:41 18° ₹29'59 minimum elong 8°955'36 1°21'31 retrograde morning rise -5148 Aug 23 j 19:09 11°5543'14 min. Earth dist. -5142 Aug 14 j 23:40 13°**る**34'18 4.03949 AU retrograde -5148 Dec 22 j 20:29 28°557'32 opposition -5142 Aug 16 j 02:42 13°**る**25'07 -2°-2'-55 opposition -5147 Feb 21 j 13:47 24°506'05 2°06'02 direct -5142 Oct 13 j 04:14 8°る28'57 min. Earth dist. -5147 Feb 22 j 18:03 23°557'04 4.34891 AU evening set -5141 Feb 15 j 11:29 27°중41'24 19°**5**06'09 direct -5147 Apr 25 j 01:53 -5141 Feb 25 j 09:13 -5147 Jul 27 j 06:29 $0^{\circ}\Omega$ evening set -5147 Aug 29 j 14:14 7°**Ω**08'18 conjunction -5141 Mar 01 j 01:51 0°**≈**51'47 -1°-25'-21 max. Earth dist. -5147 Sep 09 j 12:15 9°**£**35′27 6.31484 AU minimum elong -5141 Mar 01 j 01:52 0°**≈**51'47 1°25'38 max. Earth dist. -5141 Mar 02 j 22:09 1°≈17'39 6.06460 AU conjunction -5147 Sep 11 i 02:34 9°Ω57'03 1°25'04 morning rise -5141 Mar 14 j 18:28 4°≈03'12 minimum elong -5147 Sep 11 i 02:36 9°**Ω**57'04 1°25'18 -5141 May 04 j 09:48 15°**≈** morning rise -5147 Sep 23 j 13:22 $12^{\circ}\Omega$ 45'12 retrograde -5141 Jul 22 j 15:40 23°≈44′28 -5147 Oct 03 j 15:54 15° Ω -5141 Sep 19 j 00:58 18°≈48'28 4.10402 AU min. Earth dist. -5146 Jan 06 j 11:48 -5141 Sep 20 j 02:37 18°≈39'42 -1°-59'-59 opposition 0° mb -5146 Jan 24 j 19:07 -5141 Oct 20 j 09:37 15°R≈ 0° m 30'59 retrograde -5146 Feb 12 j 01:19 30°R**Ω** -5141 Nov 17 j 14:57 13°≈40'10 direct -5146 Mar 26 j 20:16 25° **Ω** 38'45 1°53'50 -5141 Dec 16 j 02:58 15°≈ opposition $-5146 \,\mathrm{Mar} \,\,27\,\mathrm{j} \,\,22:12 \,\,25^{\circ}\Omega \,\,30'31 \,\,4.27373 \,\,\mathrm{AU}$ -5140 Mar 11 j 10:05 min. Earth dist. 0° -5146 May 27 j 18:24 20°**Ω**41'44 -5140 Mar 23 j 05:25 direct evening set 2°**H**39'33 -5146 Aug 19 j 10:48 0° M 8° m 56'37 -5146 Sep 30 j 00:20 -5140 Apr 05 j 23:28 5°**)**(47'49 -1°-8'-46 evening set conjunction -5146 Oct 11 j 08:23 11° Mp 32'43 -5140 Apr 05 j 23:32 5°**H**47'52 1°08'56 max. Earth dist. 6.22503 AU minimum elong 6°**¥**06'48 6.14978 AU -5140 Apr 07 j 08:40 max. Earth dist. -5146 Oct 12 j 12:45 11° mp 49'03 1°03'38 -5140 Apr 19 j 18:09 conjunction morning rise 8°****56'10 minimum elong -5146 Oct 12 j 12:49 11° m 49'05 1°03'45 retrograde -5140 Aug 24 j 07:28 27° **₭** 44'07 -5146 Oct 25 j 01:26 14° m 41'46 opposition -5140 Oct 22 j 14:48 22° **∺** 41'46 -1°-15'-29 morning rise -5145 Jan 12 j 07:20 0∘**⊽** min. Earth dist. -5140 Oct 21 j 23:32 22° ¥46'57 4.20043 AU retrograde -5145 Feb 28 j 07:04 3°**2**15'15 direct -5140 Dec 21 j 05:27 17° **∺** 39'23 -5145 Apr 17 j 06:56 30°R Mp -5139 Mar 29 j 16:54 $0^{\circ}\Upsilon$ -5145 Apr 30 j 12:23 28° m 20'23 1°05'34 -5139 Apr 27 j 19:26 6°**Y**16'49 opposition evening set min. Earth dist. -5145 May 01 j 01:31 28° Mp 16'10 4.17454 AU -5145 Jun 30 j 05:45 23° m 25'59 -5139 May 11 j 12:39 9°**Y**20'30 0°-29'-20 direct conjunction 9°**Υ**20'31 -5145 Sep 05 i 19:30 0°₽ minimum elong -5139 May 11 j 12:41 0°29'19 9°**Υ**28'07 evening set -5145 Nov 01 j 12:06 11° **2**59'53 max. Earth dist. -5139 May 12 j 02:16 6.25073 AU $-5139 \text{ May } 25 \text{ j } 04:01 \quad 12^{\circ} \Upsilon^2 23'09$ morning rise conjunction -5145 Nov 14 i 05:20 14° \(\Omega\) 58'35 0°21'15 -5139 Sep 12 i 03:14 0°8 -5145 Nov 14 i 05:22 14° \(\Omega\) 58'36 0°21'12 -5139 Sep 25 j 09:54 0°817'21 minimum elong retrograde -5145 Nov 13 j 21:55 14° **2**54'14 6.12595 AU -5139 Oct 08 j 15:00 30°RΥ max. Earth dist. -5145 Nov 27 j 00:21 17°**£**58'26 -5139 Nov 23 j 20:20 25°Υ 18'48 0°-8'-46 morning rise opposition -5144 Jan 22 j 08:18 min. Earth dist. -5139 Nov 23 j 19:13 25°**Υ**19'11 4.29615 AU oom. -5138 Jan 12 j 07:15 20° Υ 27'29 retrograde -5144 Apr 04 j 11:42 7°M24'07 asc. node desc. node -5144 Apr 28 j 20:04 6°ML28'41 direct -5138 Jan 23 j 16:57 20° Υ 15'04 opposition -5144 Jun 04 j 10:26 2°M25'34 0°-7'-6 -5138 Apr 20 j 20:46 0°B min. Earth dist. -5144 Jun 04 j 07:43 2°M26'27 4.08284 AU evening set -5138 May 31 j 19:50 8°**8**31'05 -5144 Jun 23 j 22:06 30°R <u>♀</u> -5144 Aug 02 j 21:12 27°**♀**32'34 -5138 Jun 14 j 06:26 11°**8**28'39 0°18'10 direct conjunction -5138 Jun 14 j 06:24 11°**8**28'38 0°18'21 -5144 Sep 11 j 02:14 0°M minimum elong -5138 Jun 13 j 18:52 11°**8**22'17 -5144 Nov 28 j 11:24 15°M max. Earth dist. 6.33423 AU evening set -5144 Dec 04 j 16:04 16°M27'19 morning rise -5138 Jun 27 j 14:07 14°**8**24'38 -5138 Jun 30 j 06:48 15°**8** conjunction -5144 Dec 17 j 16:20 19°M32'25 0°-29'-43 -5138 Sep 23 j 16:11 $0^{\circ}\Pi$ minimum elong -5144 Dec 17 j 16:18 19°ML32'23 0°29'56 retrograde -5138 Oct 26 j 14:44 1°**Ⅱ**41'58 -5144 Dec 18 j 08:21 19°M.41'54 -5138 Nov 28 j 12:30 30°R℃ max. Earth dist. 6.05021 AU

opposition

-5138 Dec 25 j 09:26 26°847'06 0°58'09

-5144 Dec 30 j 19:50 22°M39'16

morning rise

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5138 in astronomical counting style is the year 5139 BCE in historical counting style. opposition min. Earth dist. -5138 Dec 25 j 23:29 26°842'30 4.36164 AU -5132 Jun 09 j 12:35 7°M25'23 0°-17'-58 -5137 Feb 25 j 09:00 21°843'30 min. Earth dist. -5132 Jun 09 j 06:45 direct 7°**IL**27'17 4.07129 AU -5137 May 16 j 11:03 -5132 Aug 07 j 17:51 0°Π direct 2°M32'25 -5137 Jul 03 j 08:26 9°**Ⅱ**45'15 -5132 Nov 11 j 05:32 15°M evening set max. Earth dist. -5137 Jul 15 j 04:59 12°**Ⅲ**21'21 -5132 Dec 09 j 14:43 21°M30'25 6.37615 AU evening set -5137 Jul 16 j 09:44 12°**Ⅲ**37'10 0°59'18 conjunction conjunction -5132 Dec 22 j 16:06 24°M36'22 0°-36'-31 -5137 Jul 16 j 09:40 12°**Д**37'08 minimum elong -5132 Dec 22 j 16:03 24°M36'20 minimum elong 0°59'33 0°36'45 -5132 Dec 23 j 11:20 24°M47'48 morning rise -5137 Jul 29 j 07:26 15°**Ⅲ**27'24 max. Earth dist. 6.04157 AU -5137 Oct 16 j 19:41 0ಂತಾ morning rise -5131 Jan 04 j 20:42 27° M 44'05 retrograde -5137 Nov 26 j 15:05 2°932'05 -5131 Jan 14 j 12:52 0°**∡**¹ -5131 May 16 j 16:26 17° ₹ 52'37 -5136 Jan 06 j 22:56 30°RⅡ retrograde -5131 Jul 15 j 05:32 12°**х** 756'34 opposition -5136 Jan 25 j 22:36 27°**Ⅱ**39'47 1°47'24 min. Earth dist. 4.02649 AU min. Earth dist. -5136 Jan 26 j 22:45 27°**Ⅲ**32'01 4.37866 AU opposition -5131 Jul 16 j 01:57 12°**尽** 49'44 -1°-28'-7 direct -5136 Mar 28 j 11:25 22°**Ⅲ**37'45 direct -5131 Sep 12 j 08:53 7°**х** 55′52 -5136 Jun 11 j 14:31 evening set -5130 Jan 14 j 17:39 27°**尽** 08'10 evening set -5136 Aug 02 j 20:30 10°535'07 -5130 Jan 26 j 20:13 0°궁 max. Earth dist. -5136 Aug 13 j 21:31 13°501'47 6.36554 AU conjunction -5130 Jan 28 j 02:32 0°る17'58 -1°-14'-38 conjunction -5136 Aug 15 j 13:00 13°523'43 1°23'16 minimum elong -5130 Jan 28 j 02:29 0°**る**17'56 1°14'56 minimum elong -5136 Aug 15 j 12:58 13°523'42 1°23'33 max. Earth dist. -5130 Jan 29 j 17:53 0°**ප්**41'16 6.02597 AU morning rise -5136 Aug 28 i 02:56 16°5511'06 morning rise -5130 Feb 10 i 14:37 3°る29'25 -5136 Nov 08 i 22:58 $0^{\circ}\Omega$ retrograde -5130 Jun 22 j 08:25 23°る39'45 retrograde -5136 Dec 27 i 10:08 3°**£**28′02 min. Earth dist. -5130 Aug 20 j 00:00 18°정44'16 4.04362 AU -5135 Feb 15 j 01:45 30°Rூ -5130 Aug 21 j 03:53 18°₹34'47 -2°-5'-26 opposition -5135 Feb 26 j 04:09 28°536'34 2°06'34 -5130 Oct 18 j 04:56 13°る38'14 opposition direct -5135 Feb 27 j 09:32 28°527'13 4.34212 AU -5129 Feb 08 j 09:11 min Earth dist 0°≈ -5135 Apr 29 j 16:49 23°536'59 -5129 Feb 20 j 17:47 2°≈50'23 direct evening set -5135 Jul 07 j 10:04 0°**Ω** -5135 Sep 02 j 23:15 11°**Ω**39'56 -5129 Mar 06 j 08:45 6°≈00'41 -1°-24'-49 evening set conjunction -5129 Mar 06 j 08:47 max. Earth dist. -5135 Sep 13 j 21:24 14°**Ω**07'31 6.30513 AU minimum elong 6°≈00'42 1°25'04 -5129 Mar 08 j 03:44 max. Earth dist. 6°**≈**25'44 6.07303 AU -5129 Mar 20 j 02:03 conjunction morning rise 9°**≈**11'58 -5135 Sep 15 j 11:22 $14^{\circ}\Omega$ 28'58 1° 23'45 -5129 Apr 14 j 19:55 15°≈ minimum elong -5135 Sep 17 j 18:18 15°**Ω** -5129 Jul 27 j 12:52 28°≈47'02 retrograde -5135 Sep 27 j 22:03 $17^{\circ}\Omega 17'27$ -5129 Sep 24 j 23:22 23°≈42'27 morning rise opposition -1°-55'-50 -5129 Sep 23 j 22:18 23°≈51'02 4.11610 AU -5135 Nov 30 j 11:00 0° my min. Earth dist. retrograde -5134 Jan 29 j 10:59 5°m/08'39 direct -5129 Nov 22 j 14:48 18°≈42'29 -5134 Mar 31 j 14:35 0° Mp 16'06 1°49'05 -5128 Feb 22 j 07:31 0°**)**€ opposition min. Earth dist. -5134 Apr 01 j 14:30 0° Mp 08'30 4.26160 AU evening set -5128 Mar 28 j 09:07 7°**)** ₹39'00 -5134 Apr 02 j 17:16 30°RΩ -5134 Jun 01 j 08:43 25°**Ω**19'27 -5128 Apr 11 j 03:30 10° **)** 46'44 -1°-4'-15 direct conjunction -5134 Jul 28 j 12:28 -5128 Apr 11 j 03:35 10° **X** 46'47 1°04'22 0° **m**y minimum elong -5134 Oct 04 j 11:28 13° M 36'24 max. Earth dist. -5128 Apr 12 j 12:28 11°**米**05'31 evening set 6.16509 AU max. Earth dist. -5134 Oct 15 j 22:40 16° Mp 14'45 6.21155 AU morning rise -5128 Jul 19 i 12:29 -5134 Oct 17 j 00:19 16° m 29'34 0°58'45 conjunction retrograde -5128 Aug 28 j 22:59 2°Y33'28 minimum elong -5134 Oct 17 i 00:22 16° m 29'36 0°58'51 -5128 Oct 08 i 03:43 30°R € morning rise -5134 Oct 29 j 13:34 19° m 23'08 opposition -5128 Oct 27 j 06:24 27° ★31'35 -1°-6'-51 -5134 Dec 18 j 09:23 min. Earth dist. -5128 Oct 26 j 16:25 27° ¥ 36'19 4.21750 AU 0∘ଫ -5133 Mar 05 j 07:26 8°**£**03′50 direct -5128 Dec 26 j 01:14 22° \(\frac{1}{2}\)28'59 retrograde -5133 May 05 j 11:25 3°**2**08'31 0°56'25 -5127 Mar 09 j 22:22 0°**Υ** opposition min. Earth dist. -5133 May 05 j 23:39 3°**£**04'35 4.16038 AU -5127 May 02 j 17:16 11°**Υ**'01'50 evening set -5133 Jun 01 j 02:11 30°R Mp -5127 May 16 j 09:39 14° Υ 04'28 0°-22'-47 direct -5133 Jul 05 j 01:47 28° mp 14'22 conjunction -5133 Aug 07 j 14:34 0∘<u>ರ</u> minimum elong -5127 May 16 j 09:41 14°**Υ**'04'30 0°22'45 -5133 Nov 06 j 04:14 16°**£**51'16 max. Earth dist. -5127 May 16 j 19:23 14°**Υ**09'53 6.26832 AU evening set -5127 May 30 j 00:15 17°**Υ**′06'01 morning rise -5133 Nov 18 j 22:19 19°**£**50'56 0°14'15 -5127 Aug 03 j 12:05 0°8 conjunction -5127 Sep 29 j 19:05 4°852'09 minimum elong -5133 Nov 18 j 22:20 19°**£**50'57 0°14'11 retrograde 0°**8**39'21 behind sun begin -5133 Nov 18 j 18:16 19°**2**48'34 asc. node -5127 Nov 22 j 15:00 behind sun end -5133 Nov 19 j 02:24 19°**£**53'19 -5127 Nov 27 j 13:40 30°R**Y** max. Earth dist. -5133 Nov 18 j 16:56 19°**2**47'47 6.11246 AU opposition -5127 Nov 28 j 07:26 29°**Υ**54'05 0°01'00 morning rise -5133 Dec 01 j 18:34 22°**£**51'53 min. Earth dist. -5127 Nov 28 j 08:20 29°**Υ**53'47 4.31282 AU -5132 Jan 02 j 09:38 direct -5126 Jan 28 j 09:13 24°**Υ**50'14 desc. node -5132 Mar 08 j 21:51 10°M 52'11 -5126 Mar 30 j 09:02

-5126 Jun 05 j 10:29 13°**8**01'42

evening set

-5132 Apr 09 j 14:21 12°M24'31

retrograde

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 25 Attention, astronomical year style is used: The year -5126 in astronomical counting style is the year 5127 BCE in historical counting style.

Attention, astronom	ical year style is used: Tl	ne year -5126	in astronomical co	unting style is the year	5127 BCE in historical	counting style	
	-5126 Jun 14 j 10:15	15° 8		minimum elong	-5121 Nov 23 j 15:01	24° ≏ 41'44	0°07'11
				behind sun begin	-5121 Nov 23 j 07:35		
conjunction	-5126 Jun 18 j 19:53		0°24'30	behind sun end	-5121 Nov 23 j 22:27		
minimum elong	-5126 Jun 18 j 19:51	15° 8 58'08	0°24'43	max. Earth dist.	-5121 Nov 23 j 12:43		6.09373 AU
max. Earth dist.	-5126 Jun 18 j 06:52		6.34875 AU	morning rise	-5121 Dec 06 j 12:30		
morning rise	-5126 Jul 02 j 01:58				-5121 Dec 16 j 06:06	0°M	
	-5126 Aug 26 j 17:35	0°II		desc. node	-5120 Jan 18 j 16:50	7°M18'22	
retrograde	-5126 Oct 30 j 19:53	6° Ⅱ 05'00	1007114		-5120 Mar 05 j 16:50		
opposition	-5126 Dec 29 j 17:33	1° Ⅱ 10′35	1°06'14	retrograde	-5120 Apr 14 j 19:42		
min. Earth dist.	-5126 Dec 30 j 09:00	1° I 05'33	4.37299 AU		-5120 May 25 j 01:48		00 201 20
direct	-5125 Jan 07 j 20:01 -5125 Mar 01 j 20:18	30°R と 26° と 07'09		opposition min. Earth dist.	-5120 Jun 14 j 15:05 -5120 Jun 14 j 07:22	12°M26'13	0°-28'-39 4.05509 AU
direct	-5125 Mar 01 j 20:18 -5125 Apr 23 j 15:54	0° Ⅱ		direct	-5120 Juli 14 j 07.22 -5120 Aug 12 j 16:09	7°M33'16	4.03309 AU
evening set	-5125 Apr 23 j 13:34 -5125 Jul 07 j 17:16	0 H 14°H05'41		direct	-5120 Aug 12 j 10:09 -5120 Oct 22 j 11:10		
max. Earth dist.	-5125 Jul 19 j 08:27		6.38314 AU	evening set	-5120 Oct 22 j 11:10		
max. Dartii dist.	3123 Jul 19 J 00.27	10 2230 10	0.30311710	evening sec	3120 Bec 11 j 11.37	20 1103027	
conjunction	-5125 Jul 20 j 17:00	16°∏56'43	1°03'43	conjunction	-5120 Dec 27 j 17:19	29°M-43'28	0°-43'-1
minimum elong	-5125 Jul 20 j 16:56	16° I I56'41	1°03'59	minimum elong	-5120 Dec 27 j 17:16		0°43'17
morning rise	-5125 Aug 02 j 13:32			8	-5120 Dec 28 j 21:05	0° ∡ ¹	
5	-5125 Sep 22 j 03:54	0ಂತಾ		max. Earth dist.	-5120 Dec 28 j 16:56	29°M57'32	6.02945 AU
retrograde	-5125 Nov 30 j 21:36	6° © 49'28		morning rise	-5119 Jan 09 j 23:11	2° ∡ ¹52'17	
opposition	-5124 Jan 30 j 06:27	1° 9 57'23	1°51'52	retrograde	-5119 May 21 j 23:54	23° х 05′46	
min. Earth dist.	-5124 Jan 31 j 08:55	1° 9 48'53	4.38093 AU	min. Earth dist.	-5119 Jul 20 j 07:47		4.02010 AU
	-5124 Feb 14 j 22:17	30°RⅡ		opposition	-5119 Jul 21 j 06:30	18° ∡ 02'29	-1°-35'-55
direct	-5124 Apr 01 j 21:40	26° Ⅱ 55'33		direct	-5119 Sep 17 j 10:25	13° ∡ ¹08′24	
	-5124 May 18 j 14:29	0°€			-5118 Jan 09 j 18:58	0°ರ	
evening set	-5124 Aug 07 j 01:30	14° 9 51'55		evening set	-5118 Jan 20 j 00:12	2° る 23'19	
max. Earth dist.	-5124 Aug 18 j 01:21	17° © 18'05	6.36267 AU				
				conjunction	-5118 Feb 02 j 10:00	5° る 33'34	-1°-17'-58
conjunction	-5124 Aug 19 j 17:15	17° 5 540'16	1°24'43	minimum elong	-5118 Feb 02 j 09:57	5° る 33'32	1°18'16
minimum elong	-5124 Aug 19 j 17:14		1°25'00	max. Earth dist.	-5118 Feb 04 j 02:40	5° る 57'38	6.02551 AU
morning rise	-5124 Sep 01 j 06:17	20°527'25		morning rise	-5118 Feb 15 j 23:10	8° る 45'26	
	-5124 Oct 17 j 10:28	0 \circ Ω		retrograde	-5118 Jun 27 j 11:46		
retrograde	-5124 Dec 31 j 17:35	7° Ω 47'13		min. Earth dist.	-5118 Aug 25 j 01:12		4.04912 AU
opposition	-5123 Mar 02 j 14:17	2° Ω 55'44	2°06'21	opposition	-5118 Aug 26 j 06:06		-2°-6'-55
min. Earth dist.	-5123 Mar 03 j 19:27	2° Ω 46'28	4.33429 AU	direct	-5118 Oct 23 j 08:02		
1.	-5123 Mar 27 j 06:06			. ,	-5117 Jan 20 j 21:15	0° ≈	
direct	-5123 May 04 j 00:46			evening set	-5117 Feb 26 j 01:21	8°≈02'40	
	-5123 Jun 10 j 15:04			aaniumatian	5117 Mar. 11 ; 17:14	1190012940	10 221 25
evening set	-5123 Sep 02 j 15:17 -5123 Sep 07 j 04:12			conjunction minimum elong	-5117 Mar 11 j 17:14 -5117 Mar 11 j 17:15	11 ≈12 49 11°≈12'50	-1°-23'-35 1°23'49
max. Earth dist.	-5123 Sep 07 j 04.12 -5123 Sep 18 j 01:38		6.29285 AU	max. Earth dist.		11°≈38'42	6.08383 AU
max. Earth dist.	-3123 Sep 18 j 01.38	10 062037	0.29263 AU	morning rise	-5117 Mar 25 j 10:49	11 ≈3842 14°≈23'44	0.06363 AU
conjunction	-5123 Sep 19 j 15:59	18° Ω 50'21	1°21'36	morning rise	-5117 Mar 28 j 01:54		
minimum elong	-5123 Sep 19 j 16:01	18°Ω50'22	1°21'48		-5117 Jun 12 j 04:00	0°) €	
morning rise	-5123 Oct 02 j 02:48	21° £ 39′24		retrograde	-5117 Aug 01 j 11:19	3°) €51'16	
8	-5123 Nov 10 j 01:28	0° m			-5117 Sep 20 j 20:14		
retrograde	-5122 Feb 03 j 03:00	9° m 37'21		opposition	-5117 Sep 29 j 20:34	28° ≈ 46'52	-1°-50'-45
opposition	-5122 Apr 05 j 05:41	4° m 44'34	1°43'52	min. Earth dist.	-5117 Sep 28 j 20:45	28° ≈ 55'00	4.13051 AU
min. Earth dist.	-5122 Apr 06 j 06:02	4° m/36'50	4.24539 AU	direct	-5117 Nov 27 j 15:33	23° ≈ 46′26	
	-5122 May 25 j 15:18	30°R Ω			-5116 Jan 31 j 21:13	0°)	
direct	-5122 Jun 05 j 21:23	29° Ω 48'15		evening set	-5116 Apr 02 j 12:51	12°) 39′06	
	-5122 Jun 17 j 01:45	0° m					
evening set	-5122 Oct 08 j 20:03	18° m 09'06		conjunction	-5116 Apr 16 j 07:09	15°) 46′07	0°-59'-13
max. Earth dist.	-5122 Oct 20 j 09:11	20° m 49'12	6.19294 AU	minimum elong	-5116 Apr 16 j 07:14	15°) 46′10	0°59'19
				max. Earth dist.	-5116 Apr 17 j 13:05	16°) 03′06	6.18152 AU
conjunction	-5122 Oct 21 j 09:32	21° m 03'18	0°53'39	morning rise	-5116 Apr 30 j 01:24	18° ¥ 52'53	
minimum elong	-5122 Oct 21 j 09:36	21°Mp03'20	0°53'43		-5116 Jun 22 j 12:17	0° Υ	
morning rise	-5122 Nov 02 j 23:39	23° m 58'03		retrograde	-5116 Sep 02 j 12:48	7° Y 23′05	
	-5122 Nov 29 j 22:23	0∘ ⊽		opposition	-5116 Oct 31 j 21:54	2° Υ 21'38	0°-57'-44
retrograde	-5121 Mar 10 j 04:50	12° £ 48'01		min. Earth dist.	-5116 Oct 31 j 09:25	2° Υ 25'52	4.23409 AU
opposition	-5121 May 10 j 08:21	7° £ 52'18	0°47'06	T	-5116 Nov 19 j 03:21		
min. Earth dist.	-5121 May 10 j 17:57	7° £ 49'12	4.14080 AU	direct	-5116 Dec 30 j 21:11	27° 升 18'43	
direct	-5121 Jul 09 j 16:16	2° £ 58'26		avanir+	-5115 Feb 11 j 02:59	0° Υ	
evening set	-5121 Nov 10 j 19:52	∠1 ⁻ ≟ 40′4 /		evening set	-5115 May 07 j 14:50	15° Ƴ 47′23	
conjunction	-5121 Nov 23 j 15:00	24° Ω /11/12	0°07'17	conjunction	-5115 May 21 j 06:32	18° ℃ ⊿0′0⊿	0°-16'-2
Conjunction	5121 NOV 25 J 15.00	∠¬ ==+143	0 0/1/	conjunction	3113 iviay 21 J 00.32	10 1 47 04	0 -10 -2

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5115 in astronomical counting style is the year 5116 BCE in historical counting style. $-5115 \text{ May } 21 \text{ j } 06:33 \quad 18^{\circ} \Upsilon 49'05 \quad 0^{\circ} 15'59$ direct -5109 Jul 14 i 15:02 7°**£**56'19 minimum elong $-5115 \text{ May } 21 \text{ j } 13:25 \quad 18^{\circ} \Upsilon 52'53$ evening set -5109 Nov 15 j 16:27 26° **△**42'03 max. Earth dist. 6.28381 AU -5115 Jun 03 j 20:01 21°**Υ**49'31 -5109 Nov 27 j 10:02 29°**2**28'13 morning rise desc. node -5115 Jul 12 j 17:35 0°X -5115 Oct 01 j 22:49 9°**8**28'13 asc. node conjunction -5109 Nov 28 j 12:41 29°**△**43'59 0°00'-8 -5115 Oct 04 j 05:52 -5109 Nov 28 j 12:41 29°**£**43'59 0°00'17 retrograde 9°**8**28'44 minimum elong -5115 Dec 02 j 19:03 -5109 Nov 28 j 04:39 29°**£**39'15 opposition 4°**8**31'14 0°10'54 behind sun begin min. Earth dist. -5115 Dec 02 j 22:33 4°**8**30'05 4.32585 AU behind sun end -5109 Nov 28 j 20:44 29°**△**48'43 -5114 Jan 14 j 09:24 30°**Ŗ**♈ max. Earth dist. -5109 Nov 28 j 15:07 29°**£**45'22 6.08170 AU 29°**Y**27'21 direct -5114 Feb 02 j 01:51 -5109 Nov 29 j 15:47 0° M -5114 Feb 20 j 21:57 0° 8 morning rise -5109 Dec 11 j 11:18 2° M $_47'22$ -5108 Feb 06 j 04:34 -5114 May 29 j 01:43 15°**8** 15°M -5114 Jun 10 j 02:08 17°**8**35'44 -5108 Apr 20 j 02:33 22°M35'09 evening set retrograde opposition -5108 Jun 19 j 20:34 17°M34'57 0°-39'-28 conjunction min. Earth dist. -5108 Jun 19 j 09:59 17°M38'26 4.04748 AU minimum elong -5114 Jun 23 j 10:08 20°\(231'14\) 0°31'03 -5108 Jul 10 j 13:18 15°RM max. Earth dist. -5114 Jun 22 j 16:58 20°**8**21'47 6.35814 AU direct -5108 Aug 17 j 17:30 12°M42'02 morning rise -5114 Jul 06 j 15:00 23°**8**25'05 -5108 Sep 24 j 09:15 15°M -5114 Aug 06 j 20:11 $\Pi^{\circ}0$ -5108 Dec 12 j 03:22 0°×7 retrograde -5114 Nov 04 j 04:34 10°**Д**33'58 evening set -5108 Dec 19 j 17:24 1°**х** 47′06 opposition -5113 Jan 03 j 04:05 5°**I**39'56 1°14'12 min. Earth dist. -5113 Jan 03 j 21:36 5°**I**34'13 4.37839 AU conjunction -5107 Jan 01 i 20:55 4°**∡** 54'39 0°-49'-21 direct -5113 Mar 06 i 09:42 0°Д36'35 minimum elong -5107 Jan 01 i 20:51 4°**х** 54'37 0°49'36 evening set -5113 Jul 12 j 04:27 18°**Д**33'54 max. Earth dist. -5107 Jan 02 i 22:54 5°**х** 10′07 6.02677 AU max. Earth dist. -5113 Jul 23 j 17:43 21°**Ⅲ**06'00 6.38404 AU morning rise -5107 Jan 15 j 03:57 8°**≯**04'03 -5107 May 27 j 04:45 28° ₹ 18'16 retrograde -5113 Jul 25 j 03:00 21°**II**24'20 1°07'59 -5107 Jul 25 j 09:42 23° ₹22'52 4.02286 AU conjunction min. Earth dist. -5113 Jul 25 j 02:57 21°**Ⅲ**24'18 1°08'15 opposition -5107 Jul 26 j 10:31 23° ₹ 14'31 -1°-42'-56 minimum elong -5113 Aug 06 j 22:08 24°**Д**13'10 -5107 Sep 22 j 13:25 18° ₹20'03 morning rise direct -5113 Sep 03 j 02:47 0°95 -5107 Dec 22 j 20:15 0°궁 -5113 Dec 05 j 07:21 11°517'16 -5106 Jan 25 j 05:36 evening set 7°る34'20 retrograde -5112 Feb 03 j 18:32 6°\$25'23 1°55'59 opposition -5106 Feb 07 j 16:27 10°₹44'37 -1°-20'-40 min. Earth dist. -5112 Feb 04 j 21:45 6°516'41 4.37746 AU conjunction -5106 Feb 07 j 16:25 10°₹44'36 1°20'58 -5112 Apr 06 j 10:02 1°523'54 direct minimum elong -5112 Aug 11 j 11:06 19°520'53 -5106 Feb 09 j 12:03 11°정10'22 6.03328 AU evening set max. Earth dist. -5112 Aug 22 j 07:55 21°545'46 -5106 Feb 21 j 06:11 13°**궁**56'23 max. Earth dist. 6.35489 AU morning rise -5106 May 12 j 02:31 0°≈ conjunction -5112 Aug 24 j 01:51 22°509'08 1°25'49 retrograde -5106 Jul 02 j 13:05 3°≈59'39 -5112 Aug 24 j 01:50 22°509'08 1°26'04 -5106 Aug 23 j 03:24 30°R♂ minimum elong morning rise -5112 Sep 05 j 14:23 24°556'21 min. Earth dist. -5106 Aug 30 j 01:12 29°**정**04'00 4.06104 AU -5112 Sep 28 j 23:23 0°**Ω** opposition -5106 Aug 31 j 05:19 28°**궁**54'25 -2°-7'-21 retrograde -5111 Jan 05 j 09:24 12° Ω 20'34 direct -5106 Oct 28 j 09:10 23°る56'51 -5111 Mar 07 j 06:24 7° **Ω**29'01 2°05'26 -5106 Dec 30 j 14:59 opposition min. Earth dist. -5111 Mar 08 j 12:06 7°**Ω**19'34 4.32273 AU -5105 Mar 03 j 05:26 13°≈04'51 evening set direct -5111 May 08 j 15:35 2°**Ω**30′07 -5105 Mar 11 j 12:53 15°≈ -5111 Aug 16 i 23:22 $15^{\circ}\Omega$ -5105 Mar 16 j 21:42 16°≈14'33 -1°-21'-46 evening set -5111 Sep 11 j 14:44 $20^{\circ}\Omega$ 36'55 conjunction -5105 Mar 16 j 21:45 16°≈14'35 1°22'00 max. Earth dist. -5111 Sep 22 j 14:10 23° Ω 06'10 6.27859 AU minimum elong max. Earth dist. -5105 Mar 18 j 16:15 16°≈39'10 6.09856 AU conjunction -5111 Sep 24 j 02:38 23° Ω 26'54 1°19'04 morning rise -5105 Mar 30 i 15:43 19°≈24'56 -5111 Sep 24 j 02:40 $23^{\circ}\Omega 26'55$ 1°19'15 -5105 May 18 i 23:19 0°**₩** minimum elong -5111 Oct 06 j 13:30 $26^{\circ}\Omega 16'35$ retrograde -5105 Aug 06 j 03:07 8° **X** 43'54 morning rise -5111 Oct 23 j 06:41 0° M -5105 Oct 04 j 13:17 3°\(\frac{1}{3}9'49\) -1°-45'-4 opposition retrograde -5110 Feb 07 j 23:29 14° m 21'43 min. Earth dist. -5105 Oct 03 j 14:14 3°**)** 47'41 4.14650 AU opposition -5110 Apr 10 j 03:11 9°**m** 28'39 1°37'40 -5105 Nov 03 j 21:07 30°R≈ -5105 Dec 02 j 11:23 28°≈38'57 min. Earth dist. -5110 Apr 11 j 01:21 9° m 21'36 4.22945 AU direct -5110 Jun 10 j 13:47 direct 4° m 32'46 -5105 Dec 31 j 10:44 0°**∀** -5110 Oct 13 j 10:38 22° m 57'00 -5104 Apr 07 j 12:17 17°**米**27'47 evening set evening set -5110 Oct 25 j 02:38 25° Mp 39'20 max. Earth dist. 6.17689 AU -5104 Apr 21 j 06:33 20° ★34'07 0°-53'-58 conjunction -5110 Oct 26 j 00:38 25° m 52'08 0°47'54 -5104 Apr 21 j 06:37 20° **★** 34'09 conjunction minimum elong 0°54'03 minimum elong -5110 Oct 26 j 00:42 25° m 52'10 0°47'56 max. Earth dist. -5104 Apr 22 j 08:56 20° **★**49'01 6.19760 AU morning rise -5110 Nov 07 j 15:42 28° m/47'59 morning rise -5104 May 05 j 00:22 23° ¥40′00 -5110 Nov 12 j 20:52 0∘ಹ -5104 Jun 03 j 03:22 $0^{\circ}\Upsilon$ retrograde -5109 Mar 15 j 09:22 17°**-**246'11 retrograde -5104 Sep 07 j 01:20 12°**Υ**'02'06 -5109 May 15 j 11:17 12°**♀**49'55 -5104 Nov 05 j 09:39 7°**Υ**01'14 0°-48'-35 opposition opposition min. Earth dist. -5109 May 15 j 18:38 12°**2**47'33 4.12589 AU min. Earth dist. -5104 Nov 05 j 00:23 7°**Υ**04'22 4.24856 AU

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5103 in astronomical counting style is the year 5104 BCE in historical counting style. -5103 Jan 04 i 14:28 1° Υ'58'06 direct minimum elong -5098 Oct 30 i 17:02 0°**ჲ**44'13 -5103 May 12 j 08:42 20°**Υ**23'41 -5098 Oct 29 j 23:32 0°**ჲ**34'01 evening set max Earth dist 6.16368 AU -5098 Nov 12 j 08:49 3°<u>₽40'58</u> morning rise -5103 May 25 j 23:38 23°**Υ**'24'35 0°-9'-25 -5097 Mar 20 j 12:28 22°**♀**45'58 conjunction retrograde $-5103 \text{ May } 25 \text{ j } 23:39 \quad 23^{\circ} \Upsilon 24'35$ -5097 May 20 j 14:12 17°**♀**49'11 0°26'23 minimum elong 0°09'20 opposition -5103 May 25 j 16:46 23°**Y**20'47 min. Earth dist. behind sun begin -5097 May 20 j 18:56 17°**2**47'39 4.11480 AU -5097 Jul 19 j 13:22 -5103 May 26 j 06:33 23°**Υ**28'23 behind sun end direct 12°**♀**55'49 -5103 May 26 j 02:38 23°**Υ**26'13 max. Earth dist. 6.29557 AU desc. node -5097 Oct 06 j 04:52 21°**₽**43'31 -5103 Jun 08 j 12:10 26°**Υ**24'09 morning rise -5097 Nov 13 j 03:58 0°M -5103 Jun 25 j 01:57 0°8 evening set -5097 Nov 20 j 13:09 1°M43'37 asc. node -5103 Aug 12 j 09:22 9°**8**07'51 -5103 Oct 08 j 13:23 -5097 Dec 03 j 10:12 retrograde 13°**8**58'17 conjunction 4°ML46'18 0°-7'-32 -5097 Dec 03 j 10:11 opposition -5103 Dec 07 j 04:18 9°**8**01'21 0°20'27 minimum elong 4°**M**₊46'17 0°07'42 min. Earth dist. -5103 Dec 07 j 09:33 8°**8**59'36 4.33421 AU behind sun begin -5097 Dec 03 j 02:51 4°M41'58 direct -5102 Feb 06 j 13:58 3°**8**57'27 behind sun end -5097 Dec 03 j 17:31 4°M50'37 -5102 May 11 j 21:36 15°**8** max. Earth dist. -5097 Dec 03 j 15:10 4°**ጤ**49'13 6.07352 AU evening set -5102 Jun 14 j 15:30 22°**8**04'34 morning rise -5097 Dec 16 j 10:05 7°M50'34 -5096 Jan 16 j 22:18 15° ML conjunction -5102 Jun 27 j 22:17 24°**8**59'22 0°36'51 retrograde -5096 Apr 25 j 07:09 27° ML42'45 minimum elong -5102 Jun 27 j 22:14 24°**8**59'21 0°37'04 min. Earth dist. -5096 Jun 24 j 11:12 22°M 46'23 4.04298 AU max. Earth dist. -5102 Jun 27 j 02:14 24°**8**48'21 6.36250 AU opposition -5096 Jun 25 j 00:40 22°M41'56 0°-49'-55 morning rise -5102 Jul 11 j 01:44 27°852'30 direct -5096 Aug 22 j 18:36 17°M 48'53 -5102 Jul 20 i 20:58 0°**Ⅱ** -5096 Nov 24 i 14:09 0°**∡**¹ retrograde -5102 Nov 08 j 13:43 15°**Ⅱ**00'08 -5096 Dec 24 i 18:43 6°**х** 54′58 evening set -5101 Jan 07 j 13:50 10°**Д**06'35 1°21'37 opposition -5101 Jan 08 j 09:34 10°**Д**00'11 4.37871 AU -5095 Jan 06 j 23:23 10° **₹** 02'59 0°-55'-14 min. Earth dist. conjunction -5101 Mar 10 j 21:54 5°**Ⅲ**03'29 -5095 Jan 06 j 23:19 10° **₹** 02'57 0°55'30 direct minimum elong -5101 Jul 16 j 15:16 23°**Ⅲ**01'17 -5095 Jan 08 j 05:41 10° **₹** 21'00 max. Earth dist. 6.02627 AU evening set -5101 Jul 28 j 00:24 25°**Ⅲ**31'26 -5095 Jan 20 j 07:16 13° ₹ 12'46 max. Earth dist. 6.38007 AU morning rise -5095 Apr 14 j 13:53 0°ಕ -5101 Jul 29 j 12:34 25°**Ⅲ**51'22 1°11'47 -5095 Jun 01 j 09:25 conjunction 3°**る**26'53 retrograde -5101 Jul 29 j 12:30 25°**Ⅲ**51'20 -5095 Jul 19 j 06:49 30°R 🗷 1°12'04 minimum elong -5101 Aug 11 j 06:41 28°**Ⅲ**39'55 -5095 Jul 30 j 11:29 28°**尽** 31'15 4.02663 AU min. Earth dist. morning rise -5101 Aug 17 j 09:21 0°ഇ -5095 Jul 31 j 12:32 28°**✗** 22'48 opposition -1°-49'-6 -5101 Dec 09 j 19:15 15°546'28 -5095 Sep 27 j 15:00 23° ₹ 27'58 retrograde direct -5100 Feb 08 j 07:21 10°954'46 1°59'25 -5095 Dec 02 j 02:12 0°る opposition -5094 Jan 30 j 09:39 12°る41'32 min. Earth dist. -5100 Feb 09 j 11:12 10°545'51 4.36986 AU evening set direct -5100 Apr 10 j 22:09 5°553'36 -5100 Aug 15 j 21:14 23°552'30 conjunction -5094 Feb 12 j 21:13 15° ₹51'48 -1°-22'-45 evening set max. Earth dist. -5100 Aug 26 j 19:08 26°5018'21 6.34427 AU minimum elong -5094 Feb 12 j 21:11 15°**ರ**51'47 1°23'02 max. Earth dist. -5094 Feb 14 j 16:36 16°♂17'21 6.04070 AU -5100 Aug 28 j 11:27 26°5540'54 1°26'21 -5094 Feb 26 j 11:50 19°**る**03'32 conjunction morning rise -5100 Aug 28 j 11:26 26°5540'54 -5094 Apr 17 j 15:38 minimum elong -5100 Sep 09 j 23:19 29°528'18 -5094 Jul 07 j 10:05 morning rise retrograde 9°≈01'43 -5100 Sep 12 j 08:27 0°**Ω** -5094 Sep 03 j 21:49 4°≈06'14 4.07155 AU min. Earth dist. -5094 Sep 05 i 02:22 -5100 Dec 05 i 01:04 $15^{\circ}\Omega$ opposition 3°≈56'29 -2°-6'-54 -5099 Jan 10 j 02:02 $16^{\circ}\Omega$ 57'53 retrograde -5094 Oct 08 i 17:23 30°Rる -5099 Feb 15 i 12:12 15°RΩ direct -5094 Nov 02 j 07:14 28°る58'25 -5099 Mar 12 j 00:10 $12^{\circ}\Omega$ 06'17 $2^{\circ}03'42$ -5094 Nov 27 i 02:43 0°**≈** opposition min. Earth dist. -5099 Mar 13 j 04:58 $11^{\circ}\Omega$ 57'08 4.30988 AU -5093 Feb 22 j 20:06 15°≈ direct -5099 May 13 j 06:25 7°**Ω**07'53 -5093 Mar 08 j 08:17 18°≈04'08 evening set -5099 Jul 28 j 23:38 $15^{\circ}\Omega$ -5099 Sep 16 j 02:37 $25^{\circ}\Omega$ 17'10 -5093 Mar 22 j 01:07 21°≈13'30 -1°-19'-25 evening set conjunction -5099 Sep 27 j 02:49 $27^{\circ}\Omega 47'25$ 6.26457 AU max. Earth dist. minimum elong -5093 Mar 22 j 01:10 21°≈13'32 1°19'37 max. Earth dist. -5093 Mar 23 j 17:37 21°≈36'52 6.11130 AU -5099 Sep 28 j 14:22 28° Ω 07'42 1°15'58 conjunction morning rise -5093 Apr 04 j 19:21 24°≈23'24 -5093 Apr 29 j 22:38 -5099 Sep 28 j 14:25 $28^{\circ}\Omega07'43$ 1°16'08 0°**)** minimum elong -5099 Oct 06 j 19:20 -5093 Aug 10 j 20:46 13°**¥** 34'45 0° m retrograde -5099 Oct 11 j 01:41 -5093 Oct 08 j 08:58 8°**₭**37'59 4.15996 AU morning rise 0° m 58'08 min. Earth dist. -5098 Feb 12 j 23:01 19° m 10'21 -5093 Oct 09 j 05:22 8°**)** 31′01 -1°-38'-45 retrograde opposition opposition -5098 Apr 15 j 02:18 14° Mp 16'53 1°30'42 direct -5093 Dec 07 j 08:22 3°**∺**29'44 min. Earth dist. -5098 Apr 15 j 22:28 14° Mp 10'27 4.21510 AU evening set -5092 Apr 12 j 11:04 22° **★** 15'30 direct -5098 Jun 15 j 08:58 9°m/21'22 evening set -5098 Oct 18 j 02:09 27° m/48'10 conjunction -5092 Apr 26 j 05:18 25°**米**21'15 0°-48'-23 -5098 Oct 27 j 13:11 0∘**⊽** minimum elong -5092 Apr 26 j 05:22 25°**米**21'18 0°48'27 -5092 Apr 27 j 05:14 25° **★** 34'44 6.21085 AU max. Earth dist.

-5092 May 09 j 22:41 28° **∺**26'25

morning rise

-5098 Oct 30 j 16:59 0°**2**44'11 0°41'46

conjunction

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 28

•	ical year style is used: The		-	* **			.8
7 ttention, astronom	-5092 May 16 j 22:57	0°Υ	in astronomical co	min. Earth dist.	-5086 Apr 20 j 19:12		
retrograde	-5092 Sep 11 j 12:13			direct	-5086 Jun 20 j 03:59		1.20 120 110
opposition	-5092 Nov 09 j 21:38		0°-39'-9	direct	-5086 Oct 11 j 09:19	0° 잔	
min. Earth dist.	-5092 Nov 09 j 13:37		4.26041 AU	evening set	-5086 Oct 22 j 16:38	o — 2° Ω 35'40	
direct	-5091 Jan 09 j 05:27	6° Υ 37'45	4.20041 AU	evening set	-3000 Oct 22 j 10.30	2 -33 40	
evening set	-5091 May 17 j 02:56			conjunction	-5086 Nov 04 j 07:57	5° Ω 32'22	0°35'26
evening set	-3091 May 17 J 02.30	23 1 00 36		minimum elong	-5086 Nov 04 j 07:37	5° Ω 32'23	0°35'26
conjunction	-5091 May 30 j 16:54	28° Y 01'05	0°-2'-42	max. Earth dist.	-5086 Nov 03 j 16:19	5° £ 23'14	6.15370 AU
minimum elong	-5091 May 30 j 16:54	28° Υ 01'06	0°02'36	morning rise	-5086 Nov 17 j 00:51	8° £ 30'01	0.13370 AU
behind sun begin	-5091 May 30 j 08:39	27° Υ 56'33	0 02 30	retrograde	-5085 Mar 25 j 12:58	27° £ 40′50	
behind sun end	-5091 May 30 j 08:39	$28^{\circ}\Upsilon 05'38$		opposition	-5085 May 25 j 15:16		0°15'50
max. Earth dist.	-5091 May 30 j 15:33	28° Υ 00'23	6.30521 AU	min. Earth dist.	-5085 May 25 j 16:56		4.10635 AU
max. Earm dist.	-5091 Jun 08 j 15:47	0° 8	0.30321 AU	direct		17° ⊆ 50'15	4.10033 AU
morning rise	-5091 Jun 13 j 04:26	0° 8 59'51		desc. node	-5085 Jul 24 j 10:20 -5085 Aug 16 j 04:46	17 — 30 13 18° Ω 40'41	
asc. node	-5091 Jun 21 j 22:59	2° 8 54'51		desc. Hode	-5085 Aug 10 j 04:40 -5085 Oct 27 j 02:56	0°M	
asc. node	-5091 Aug 26 j 00:03	15° 8		evening set	-5085 Oct 27 j 02:50	6°M39'28	
retrograde	-5091 Oct 13 j 00:03	18° 8 29'36		evening set	-3003 NOV 23 J 07.30	0 1103720	
retrograde	-5091 Nov 30 j 11:36	15°R B		conjunction	-5085 Dec 08 j 06:03	9° M 42'51	0°-14'-40
opposition	-5091 Nov 30 j 11.30	13° KO	0°29'58	minimum elong	-5085 Dec 08 j 06:01	9°M42'50	0°14'51
min. Earth dist.	-5091 Dec 11 j 14.41	13° 8 30'28	4.34094 AU	behind sun begin	-5085 Dec 08 j 00:01	9°M40'52	0 1431
direct	-5090 Feb 11 j 04:43	8° 8 29'20	4.34094 AU	behind sun eegin	-5085 Dec 08 j 02:42	9°M44'47	
direct	-5090 Feb 11 j 04.43			max. Earth dist.	-5085 Dec 08 j 15:38	9°M48'30	6.06741 AU
avanina aat	-5090 Apr 21 j 21.00 -5090 Jun 19 j 05:33				•	9 11648 30 12°11647'48	0.00/41 AU
evening set	-3090 Juli 19 J 03.33	26° 8 35'21		morning rise	-5085 Dec 21 j 06:49 -5085 Dec 30 j 17:13	15°M	
conjunction	-5090 Jul 02 j 11:10	29° 8 29'31	0°42'44		-5083 Dec 30 j 17.13	13 IIC 0° ⊼ 7	
minimum elong	-5090 Jul 02 j 11:10	29° 8 29'29	0°42'57	retrograde	-5084 Mar 18 j 22.17	2° х 43'39	
max. Earth dist.	-5090 Jul 01 j 12:44		6.36573 AU	renograde	-5084 Apr 30 j 11.17 -5084 Jun 12 j 01:27	2 x .43 39 30°RM	
max. Earm dist.		0° Ⅱ	0.303/3 AU	min. Earth dist.			4.03987 AU
morning rise	-5090 Jul 04 j 18:35 -5090 Jul 15 j 13:15	0 П 2°П21'58		opposition	-5084 Jun 29 j 11:40 -5084 Jun 30 j 02:01		4.03987 AU 0°-59'-46
•	-5090 Nov 12 j 22:55	2 H 21 38 19° H 28'43		direct	-5084 Juli 30 j 02:01 -5084 Aug 27 j 17:53		0 -39 -40
retrograde opposition	-5089 Jan 12 j 01:02	19 II 28 43	1°28'42	direct	-5084 Nov 04 j 20:47	22 11649 12 0°×7	
min. Earth dist.	-5089 Jan 12 j 21:22	14 Ⅲ 33 30 14° Ⅲ 28'55	4.37864 AU	evening set	-5084 Nov 04 j 20.47 -5084 Dec 29 j 18:11		
direct	-5089 Mar 15 j 09:27	9° ∏ 32'38	4.37804 AU	evening set	-3004 DCC 29 J 10.11	11 × 30 10	
evening set	-5089 Jul 21 j 02:39	27° I I30'40		conjunction	-5083 Jan 11 j 23:39	150.704130	-1°00'-34
max. Earth dist.	-5089 Aug 01 j 10:14	0°900'12	6.37674 AU	minimum elong	-5083 Jan 11 j 23:35		1°00'52
max. Lattii dist.	-5089 Aug 01 j 09:53	0°95	0.57074 AC	max. Earth dist.	-5083 Jan 13 j 06:56		6.02615 AU
	-3007 Aug 01 J 07.33	0 3		morning rise	-5083 Jan 25 j 08:39		0.02013 AC
conjunction	-5089 Aug 02 j 22:43	0°\$20'22	1°15'14	morning rise	-5083 Mar 20 j 04:51	0°중	
minimum elong	-5089 Aug 02 j 22:40	0°920'20	1°15'31	retrograde	-5083 Jun 06 j 08:53	8° る 28'39	
morning rise	-5089 Aug 15 j 15:42	3°908'35	1 1331	min. Earth dist.	-5083 Aug 04 j 08:47	3° ප 33'17	4.02984 AU
retrograde	-5089 Dec 14 j 08:46	20°517'26		opposition	-5083 Aug 05 j 11:20	3° ට 24'19	-1°-54'-19
opposition	-5088 Feb 12 j 21:41	15°925'55	2°02'14	оррозион	-5083 Sep 02 j 10:31	30°R. ✓	1 3. 17
min. Earth dist.	-5088 Feb 14 j 02:16	15°5016'47	4.36372 AU	direct	-5083 Oct 02 j 11:49	28° ₹ 129'07	
direct	-5088 Apr 15 j 12:35	10°525'11	505/2110	4.1.000	-5083 Nov 01 j 14:43	0°궁	
evening set	-5088 Aug 20 j 07:48	28°\$25'03		evening set	-5082 Feb 04 j 11:26		
	-5088 Aug 27 j 10:04	0°N				-, •,	
max. Earth dist.	-5088 Aug 31 j 04:35	0° Ω 50'41	6.33579 AU	conjunction	-5082 Feb 17 j 23:54	20°る53'02	-1°-24'-11
				minimum elong	-5082 Feb 17 j 23:53		1°24'27
conjunction	-5088 Sep 01 j 21:16	1° Ω 13'29	1°26'25	max. Earth dist.	-5082 Feb 19 j 19:14		6.04680 AU
minimum elong	-5088 Sep 01 j 21:17	1° Ω 13'29	1°26'40	morning rise	-5082 Mar 03 j 15:09		-
morning rise	-5088 Sep 14 j 08:49	4° Ω 01'04		. 8	-5082 Mar 29 j 16:54	0° ≈	
Ü	-5088 Nov 07 j 03:17			retrograde	-5082 Jul 12 j 07:25	13° ≈ 58'41	
retrograde	-5087 Jan 14 j 19:00	21° Ω 35′18		opposition	-5082 Sep 09 j 21:25	8° ≈ 53'33	-2°-5'-35
opposition	-5087 Mar 16 j 18:30	16° Ω 43'31	2°01'13	min. Earth dist.	-5082 Sep 08 j 18:32	9° ≈ 02'44	4.07985 AU
min. Earth dist.	-5087 Mar 17 j 21:47	16° Ω 34'50	4.29973 AU	direct	-5082 Nov 07 j 05:11	3°≈55'02	
	-5087 Mar 30 j 15:25	15°RΩ			-5081 Feb 05 j 02:16	15° ≈	
direct	-5087 May 17 j 21:39	11° Ω 45'34		evening set	-5081 Mar 13 j 09:26		
	-5087 Jul 04 j 07:08	15° Ω		-			
evening set	-5087 Sep 20 j 14:08	29° Ω 56′13		conjunction	-5081 Mar 27 j 02:52	26° ≈ 08'39	-1°-16'-32
-	-5087 Sep 20 j 20:49	0° m		minimum elong	-5081 Mar 27 j 02:55	26° ≈ 08'41	1°16'42
max. Earth dist.	-5087 Oct 01 j 18:16	2° m 29'02	6.25379 AU	max. Earth dist.	-5081 Mar 28 j 18:19	26° ≈ 31'21	6.12125 AU
	·			morning rise	-5081 Apr 09 j 21:17	29° ≈ 18'12	
conjunction	-5087 Oct 03 j 02:06	2° m 47'14	1°12'26	-	-5081 Apr 12 j 22:43	0° ∀	
minimum elong	-5087 Oct 03 j 02:09	2° Mp 47'16	1°12'34	retrograde	-5081 Aug 15 j 12:08	18°) €23'06	
morning rise	-5087 Oct 15 j 13:33	5° m 38'14		opposition	-5081 Oct 13 j 20:07	13°) 19′48	-1°-31'-53
retrograde	-5086 Feb 17 j 20:58	23° Mp 56'23		min. Earth dist.	-5081 Oct 13 j 00:28	13°) €26'30	4.17065 AU
opposition	-5086 Feb 17 j 20:58 -5086 Apr 20 j 00:43	23° M 56'23 19° M 02'32	1°23'10	min. Earth dist. direct	-5081 Oct 13 j 00:28 -5081 Dec 12 j 01:27	13° ∺ 26′30 8° ∺ 18′12	4.17065 AU

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 29 Attention, astronomical year style is used: The year -5080 in astronomical counting style is the year 5081 BCE in historical counting style.

Attention, astronom	ical year style is used: The	he year -5080	in astronomical co	unting style is the year	r 5081 BCE in historical of	counting style	
evening set	-5080 Apr 17 j 09:24	27°) €02'08		minimum elong	-5075 Oct 07 j 12:42	7° m 24'54	1°08'36
	-5080 Apr 30 j 14:15	0° Υ		morning rise	-5075 Oct 20 j 00:42	10° Mp 16° 38	
				retrograde	-5074 Feb 22 j 17:16	28°M/41'32	
conjunction	-5080 May 01 j 03:19		0°-42'-32	opposition	-5074 Apr 24 j 22:25		
minimum elong	-5080 May 01 j 03:22	0° Y 07′23	0°42'34	min. Earth dist.	-5074 Apr 25 j 14:23	-	4.19035 AU
max. Earth dist.	-5080 May 01 j 22:45	0° Υ 18'17	6.22162 AU	direct	-5074 Jun 24 j 21:00	-	
morning rise	-5080 May 14 j 20:22	3° Y 11′53			-5074 Sep 24 j 04:09	0∘ ⊽	
retrograde	-5080 Sep 16 j 00:48		00 201 21	evening set	-5074 Oct 27 j 07:12	7° ≏ 23'21	
opposition	-5080 Nov 14 j 09:31				507434 00:00.00	100 0 21100	0020152
min. Earth dist.	-5080 Nov 14 j 04:17		4.27031 AU	conjunction	-5074 Nov 08 j 23:26		
direct	-5079 Jan 13 j 22:05 -5079 May 01 j 06:24			minimum elong max. Earth dist.	-5074 Nov 08 j 23:28		0°28'51 6.13994 AU
asc. node evening set	-5079 May 01 j 06:24			max. Earth dist.	-5074 Nov 08 j 11:48 -5074 Nov 21 j 17:11		6.13994 AU
evening set	-5079 May 21 j 20:31			morning risc	-5073 Feb 16 j 18:15	0°M₁	
	-3079 Way 23 J 11.11	00		retrograde	-5073 Mar 30 j 16:55	2°M37'42	
conjunction	-5079 Jun 04 j 10:04	2° 8 38'23	0°04'09	renograde	-5073 May 11 j 22:41		
minimum elong	-5079 Jun 04 j 10:03		0°04'16	opposition	-5073 May 30 j 16:52		0°05'05
behind sun begin	-5079 Jun 04 j 01:57		0 0.10	min. Earth dist.	-5073 May 30 j 17:21		
behind sun end	-5079 Jun 04 j 18:10			desc. node	-5073 Jun 26 j 01:10		
max. Earth dist.	-5079 Jun 04 j 07:03		6.31366 AU	direct	-5073 Jul 29 j 08:36		
morning rise	-5079 Jun 17 j 20:21				-5073 Oct 07 j 10:14		
-	-5079 Aug 02 j 09:47	15° 8		evening set	-5073 Nov 30 j 04:43	11°MJ39'06	
retrograde	-5079 Oct 17 j 08:42	23° 8 02'05		-	-		
opposition	-5079 Dec 16 j 01:19	18° 8 06'09	0°39'18	conjunction	-5073 Dec 13 j 03:47	14°M43'23	0°-21'-49
min. Earth dist.	-5079 Dec 16 j 10:18	18° 8 03'12	4.34749 AU	minimum elong	-5073 Dec 13 j 03:45	14°M43'22	0°22'00
	-5078 Jan 10 j 12:26	15° ₹ 8		max. Earth dist.	-5073 Dec 13 j 15:22		6.05701 AU
direct	-5078 Feb 15 j 17:00	13° 8 02'21			-5073 Dec 14 j 07:48	15°M	
	-5078 Mar 24 j 08:53			morning rise	-5073 Dec 26 j 05:56		
	-5078 Jun 18 j 16:01				-5072 Feb 20 j 12:20	0° ∡	
evening set	-5078 Jun 23 j 19:24	1° Ⅱ 07'01		retrograde	-5072 May 05 j 15:25	7° ∡ 750'17	
				opposition	-5072 Jul 05 j 05:16		-1°-9'-23
conjunction	-5078 Jul 06 j 23:31	4° Ⅱ 00′26	0°48'20	min. Earth dist.	-5072 Jul 04 j 12:05		4.03293 AU
minimum elong	-5078 Jul 06 j 23:27		0°48'36		-5072 Jul 27 j 18:52		
max. Earth dist.	-5078 Jul 05 j 22:13		6.36975 AU	direct	-5072 Sep 01 j 16:41		
morning rise	-5078 Jul 20 j 00:21	6° I 52'09			-5072 Oct 07 j 07:13	0° ⊼	
retrograde	-5078 Nov 17 j 09:51 -5077 Jan 16 j 12:23		1025!14	evening set	-5071 Jan 03 j 20:53	1/°×'04'42	
opposition min. Earth dist.	-5077 Jan 17 j 10:51			conjunction	-5071 Jan 17 j 03:30	200.712!41	10 5! 26
	-5077 Mar 19 j 23:41		4.37993 AU	minimum elong	-5071 Jan 17 j 03:26		
direct	-5077 Jul 16 j 09:39	0°9		max. Earth dist.	-5071 Jan 18 j 13:31		6.02314 AU
evening set	-5077 Jul 25 j 13:14	1°959'31		morning rise	-5071 Jan 30 j 13:27		0.02514710
max. Earth dist.	-5077 Aug 05 j 18:56	4°528'09	6.37480 AU	morning rise	-5071 Feb 28 j 09:04	0°る	
man. Darm dist.	5077 11 ug 05 j 10.50	200	0.57 100 110	retrograde	-5071 Jun 11 j 13:38	13° ට 38'46	
conjunction	-5077 Aug 07 j 08:14	4°9548'47	1°18'15	min. Earth dist.	-5071 Aug 09 j 10:59	8° ප 43'09	4.03118 AU
minimum elong	-5077 Aug 07 j 08:11	4°9548'46	1°18'31	opposition	-5071 Aug 10 j 13:32	8° ප 34'09	-1°-58'-50
morning rise	-5077 Aug 20 j 00:07	7° © 36'38		direct	-5071 Oct 07 j 14:36	3°₹38'33	
retrograde	-5077 Dec 18 j 19:29	24°9547'12		evening set	-5070 Feb 09 j 17:32	22° る 52'39	
opposition	-5076 Feb 17 j 11:05	19° © 55'39	2°04'17				
min. Earth dist.	-5076 Feb 18 j 15:11	19° 5 46'41	4.35870 AU	conjunction	-5070 Feb 23 j 06:58	26° පි 03'11	-1°-25'00
direct	-5076 Apr 20 j 00:29	14° © 55'12		minimum elong	-5070 Feb 23 j 06:58		1°25'17
	-5076 Aug 11 j 09:49	0 $^{\circ}\Omega$		max. Earth dist.	-5070 Feb 25 j 03:51		6.05242 AU
evening set	-5076 Aug 24 j 17:04	2° Ω 55'33		morning rise	-5070 Mar 08 j 22:55		
max. Earth dist.	-5076 Sep 04 j 14:32	5° Ω 21'53	6.32783 AU		-5070 Mar 12 j 04:39	0° ≈	
		_			-5070 May 26 j 11:34		
conjunction	-5076 Sep 06 j 05:59	5° Ω 44'03	1°25'59	retrograde	-5070 Jul 17 j 07:23	19° ≈ 04'02	
minimum elong	-5076 Sep 06 j 05:59	5° Ω 44'03	1°26'14	•.•	-5070 Sep 07 j 08:12	15°R≈	20.01.17
morning rise	-5076 Sep 18 j 17:06	8° Ω 31'47		opposition	-5070 Sep 14 j 19:42	13°≈59'05	-2°-3'-17
matra a J-	-5076 Oct 18 j 16:21			min. Earth dist.	-5070 Sep 13 j 16:33	14°≈08'22	4.08946 AU
retrograde	-5075 Jan 19 j 11:51	26° Ω 10'36	1°58'01	direct	-5070 Nov 12 j 04:39	9°≈00'11 15°≈	
opposition min. Earth dist.	-5075 Mar 21 j 11:52 -5075 Mar 22 j 15:20	21° Ω 18'36 21° Ω 09'53	4.28901 AU	evening set	-5069 Jan 14 j 12:47 -5069 Mar 18 j 14:39	15°≈ 28°≈02'43	
direct	-5075 May 22 j 13:45	16° Ω 21'01	4.20/01 AU	evening set	-5069 Mar 27 j 03:39	28 ≈ 02 43 0° ∺	
311000	-5075 Sep 04 j 13:40	0° m)			5007 Mai 2/ J 05.39	υ / (
evening set	-5075 Sep 04 j 15:40	4° Mp 33'16		conjunction	-5069 Apr 01 j 08:21	1° ₩ 11'32	-1°-13'-1
max. Earth dist.	-5075 Oct 06 j 05:15	7° m) 06'52	6.24112 AU	minimum elong	-5069 Apr 01 j 08:25	1°) (11'34	1°13'11
	- .	3		max. Earth dist.	-5069 Apr 02 j 21:07	1°) 32′37	6.13431 AU
conjunction	-5075 Oct 07 j 12:39	7° m 24'53	1°08'29	morning rise	-5069 Apr 15 j 03:03	4°) €20'35	
-	,	•		-			

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5069 in astronomical counting style is the year 5070 BCE in historical counting style. -5069 Aug 20 j 05:57 23°**米** 17'29 evening set -5063 Sep 29 j 07:30 9° m 01'45 retrograde -5069 Oct 18 j 13:42 18° **★** 14'36 -1°-24'-13 opposition min. Earth dist. -5069 Oct 17 j 19:40 18°\(\mathbf{2}\)20'44 4.18596 AU conjunction -5063 Oct 11 j 19:57 11° mp 54'10 1°04'15 -5069 Dec 16 j 23:39 13°**米**12'41 -5063 Oct 11 j 20:01 11° mp 54'12 1°04'21 direct minimum elong -5063 Oct 10 j 14:10 11° m 37'02 -5068 Apr 13 j 21:51 0° max. Earth dist. 6.22499 AU -5068 Apr 22 j 09:29 1°Y'52'43 -5063 Oct 24 j 08:30 14° m 46'52 evening set morning rise -5062 Jan 10 j 22:30 0∘Ω 3°**₽**20'08 -5068 May 06 j 03:11 4°Υ57'07 0°-36'-19 -5062 Feb 27 j 13:53 conjunction retrograde -5068 May 06 j 03:15 4°Υ57'09 -5062 Apr 17 j 04:22 minimum elong 0°36'19 30°R M -5068 May 06 j 21:47 -5062 Apr 29 j 17:16 max. Earth dist. 5°**Y**07'32 6.23848 AU opposition 28° Mp 25'28 1°06'53 morning rise -5068 May 19 j 19:23 8°**Y**00′37 min. Earth dist. -5062 Apr 30 j 08:58 28° Mp 20'264.17193 AU -5068 Sep 20 j 12:08 26°**Y**01'16 -5062 Jun 29 j 12:31 23° My 30'55 retrograde direct -5068 Nov 18 j 22:20 -5062 Sep 04 j 13:40 opposition 21°**Y**'02'02 0°-19'-42 0∘**⊽** min. Earth dist. -5068 Nov 18 j 18:08 21°**Υ**'03'27 4.28725 AU evening set -5062 Oct 31 j 19:53 12°**♀**06'42 direct -5067 Jan 18 j 14:30 15°**Y**58′28 asc. node -5067 Mar 10 j 19:12 19°**Υ**44'55 conjunction -5062 Nov 13 j 13:01 15°**Ω**05'35 0°22'17 -5067 May 06 j 19:31 0°8 minimum elong -5062 Nov 13 j 13:03 15°**♀**05'36 0°22'13 evening set -5067 May 26 j 14:26 4°**8**15'21 max. Earth dist. -5062 Nov 13 j 02:49 14°**♀**59'36 6.12097 AU morning rise -5062 Nov 26 j 08:04 18°**£**05'38 conjunction -5067 Jun 09 j 02:18 7°**8**13'38 0°10'45 -5061 Jan 20 j 22:02 0°M 7°M33'03 minimum elong -5067 Jun 09 j 02:17 7°**と**13'38 0°10'54 retrograde -5061 Apr 04 j 18:34 behind sun begin -5067 Jun 08 j 20:07 7°**8**10'15 desc. node -5061 May 07 i 08:11 5°M55'59 behind sun end -5067 Jun 09 i 08:26 7°**8**17'00 opposition -5061 Jun 04 i 17:16 2°MJ34'38 0°-5'-30 max. Earth dist. -5067 Jun 08 i 19:02 7°**8**09'39 6.32938 AU min. Earth dist. -5061 Jun 04 j 14:34 2°M35'31 4.07596 AU morning rise -5067 Jun 22 j 11:25 10°810'24 -5061 Jun 25 j 13:29 30°R ₽ -5067 Jul 14 j 23:45 15°8 -5061 Aug 03 j 02:37 27°**£**41'36 direct -5067 Oct 21 j 17:01 27°\(\mathbf{3}30'02 \) -5061 Sep 10 j 02:06 0°M retrograde -5067 Dec 20 j 10:47 22°\(\mathbf{3}34'35\) 0°48'09 -5061 Nov 28 j 00:27 15°M opposition -5067 Dec 20 j 22:27 22°**8**30'45 4.36088 AU -5061 Dec 05 j 01:41 16°M39'29 min. Earth dist. evening set -5066 Feb 20 j 07:26 17°**8**30'50 direct -5066 Jun 02 j 03:56 -5061 Dec 18 j 01:57 19°M44'56 0°-28'-42 Π $^{\circ}0$ conjunction -5066 Jun 28 j 06:21 -5061 Dec 18 j 01:54 19°M44'55 0°28'55 evening set 5° **II** 31'49 minimum elong 8°**Ⅱ**09'44 -5061 Dec 18 j 17:22 19°M 54'07 max. Earth dist. -5066 Jul 10 j 06:45 6.37967 AU max. Earth dist. 6.04209 AU -5061 Dec 31 j 05:17 22°ML52'07 morning rise -5060 Jan 31 j 10:52 0° **✗**¹ -5066 Jul 11 j 09:11 8°**II**24'15 0°53'29 conjunction -5066 Jul 11 j 09:08 8°**耳**24'14 0°53'45 -5060 May 10 j 22:22 12° ₹ 59'50 minimum elong retrograde -5066 Jul 24 j 08:26 11°**Ⅲ**14'58 -5060 Jul 10 j 09:07 morning rise opposition 7°**∡** 57'31 -1°-18'-26 retrograde -5066 Nov 21 j 14:27 28°**Ⅲ**17'49 min. Earth dist. -5060 Jul 09 j 14:29 8°**✗**'03'44 4.02251 AU -5065 Jan 20 j 20:29 23°**Ц**25'12 1°40'56 direct -5060 Sep 06 j 17:58 3°**∡**03'58 opposition min. Earth dist. -5065 Jan 21 j 19:36 23°**Ⅲ**17'45 4.38582 AU evening set -5059 Jan 09 j 01:28 22°**尽** 17'24 direct -5065 Mar 24 j 08:40 18°**Ⅲ**22'47 -5065 Jun 30 j 01:28 0ಂಪ -5059 Jan 22 j 09:15 25°**又**'27'06 -1°-10'-4 conjunction -5065 Jul 29 j 19:35 6°9518'14 -5059 Jan 22 j 09:11 25° **₹**'27'04 1°10'21 evening set minimum elong 6.01811 AU max. Earth dist. -5065 Aug 09 j 21:48 8°9545'06 6.37594 AU max. Earth dist. -5059 Jan 23 j 23:03 25°**х** 49'34 -5059 Feb 04 j 20:19 28° ₹38'32 morning rise -5059 Feb 10 i 15:09 conjunction -5065 Aug 11 i 13:18 9°9506'58 1°20'40 0°₹ -5059 Jun 16 j 19:26 18°**ප**53'19 minimum elong -5065 Aug 11 i 13:16 9°906'56 1°20'56 retrograde morning rise -5065 Aug 24 i 04:17 11°554'22 opposition -5059 Aug 15 i 16:38 13°₹48'27 -2°-2'-21 retrograde -5065 Dec 23 i 04:20 29°506'14 min. Earth dist. -5059 Aug 14 j 12:29 13°る58'01 4.03238 AU -5064 Feb 21 i 20:42 24°\$\ioldot{914'47} 2°05'30 direct -5059 Oct 12 i 16:40 8°**る**52'25 opposition min. Earth dist. -5064 Feb 23 i 02:46 24°505'12 4.35488 AU -5058 Feb 15 j 01:26 28°る06'50 evening set direct -5064 Apr 24 j 11:05 19°5014'39 -5058 Feb 23 j 03:20 0°≈ -5064 Jul 25 j 22:52 $0^{\circ}\Omega$ evening set -5064 Aug 28 j 21:44 7°Ω15'20 conjunction -5058 Feb 28 j 15:35 1°≈17'24 -1°-25'-7 max. Earth dist. -5064 Sep 08 j 17:59 9°**Ω**41'19 6.31919 AU minimum elong -5058 Feb 28 j 15:36 1°≈17'24 1°25'23 max. Earth dist. -5058 Mar 02 j 12:10 1°≈43'28 6.05932 AU conjunction -5064 Sep 10 j 10:16 10° **Ω**04'00 1°25'03 morning rise -5058 Mar 14 j 08:20 4°≈29'04 -5064 Sep 10 j 10:18 10° Ω 04'01 1°25'16 -5058 May 01 j 16:33 15°≈ minimum elong -5064 Sep 22 j 21:09 12° **Ω**52'00 -5058 Jul 22 j 06:50 24°≈12'17 morning rise retrograde -5064 Oct 02 j 11:31 15°**Ω** -5058 Sep 19 j 18:40 19°≈07'19 -1°-59'-58 opposition -5063 Jan 04 j 06:44 -5058 Sep 18 j 15:51 19°≈16'30 4.10099 AU 0° M min. Earth dist. retrograde -5063 Jan 23 j 22:52 0° Mp 36'03 -5058 Oct 25 j 14:13 15°R≈ -5063 Feb 12 j 17:39 30°RΩ direct -5058 Nov 17 j 06:41 14°≈07'50 opposition -5063 Mar 26 j 00:59 25°Ω43'51 1°54'15 -5058 Dec 10 j 03:56 15°**≈** min. Earth dist. -5063 Mar 27 j 03:21 25°**Ω**35'29 4.27605 AU -5057 Mar 09 j 22:57 0°**)**€ direct -5063 May 26 j 23:02 20°**Ω**46'37 -5057 Mar 23 j 20:03 3°**)**€07'20 evening set

-5063 Aug 18 j 07:16

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5057 in astronomical counting style is the year 5058 BCE in historical counting style. -5057 Apr 06 j 14:13 6°¥15'38 -1°-8'-56 minimum elong -5052 Sep 14 j 20:01 $14^{\circ}\Omega 37'23$ $1^{\circ}23'48$ conjunction -5057 Apr 06 j 14:17 6°¥15'41 1°09'05 -5052 Sep 16 j 12:02 minimum elong 15°**Ω** max. Earth dist. -5057 Apr 08 j 02:50 6°**)**€36'34 -5052 Sep 27 j 06:51 6.14933 AU morning rise 17°**Ω**25'52 -5057 Apr 20 j 08:41 -5052 Nov 28 j 23:12 9°**¥**23′56 morning rise 0° m -5057 Aug 24 j 23:13 28°**升**11'53 -5051 Jan 28 j 19:25 retrograde retrograde 5° Mp 16'28-5057 Oct 23 j 07:00 opposition 23°**¥**09'23 -1°-15'-57 opposition -5051 Mar 30 j 21:00 0° Mp 24'03 1°49'36 -5057 Oct 22 j 14:31 min. Earth dist. 23°**₭**14'58 4.20242 AU min. Earth dist. -5051 Mar 31 j 23:16 0° Mp 15'42 4.26085 AU direct -5057 Dec 21 j 21:10 18°**₩**07'05 -5051 Apr 03 j 00:41 30°₽£ $0^{\circ}\Upsilon$ -5056 Mar 27 j 03:39 direct -5051 May 31 j 16:46 25°**Ω**27'13 -5051 Jul 26 j 22:52 evening set -5056 Apr 27 j 09:28 6°**Y**42'50 0° M evening set -5051 Oct 03 j 20:32 13° Mp 45'33 9°**Υ**46'17 0°-29'-50 -5056 May 11 j 02:29 -5051 Oct 15 j 05:49 16° m 22'54 conjunction max. Earth dist. 6.20863 AU -5056 May 11 j 02:31 minimum elong 9°**Ƴ**46'18 0°29'50 max. Earth dist. -5056 May 11 j 16:32 9°**Υ**54'08 6.25478 AU conjunction -5051 Oct 16 j 09:30 16° Mp 38'53 0°59'21 morning rise -5056 May 24 j 18:02 12° **Y**48'47 minimum elong -5051 Oct 16 j 09:33 16° Mp 38'55 0°59'27 -5056 Sep 04 j 08:05 0°8 morning rise -5051 Oct 28 j 22:46 19° M 32'35 retrograde -5056 Sep 24 j 23:19 0°**8**41'35 -5051 Dec 16 j 21:17 0∘<u>ଫ</u> -5056 Oct 15 j 12:04 30°R℃ retrograde -5050 Mar 04 j 14:50 8°₽14'08 opposition -5056 Nov 23 j 11:03 25°**Y**'42'49 0°-9'-43 opposition -5050 May 04 j 18:41 3°**₽**19'03 0°57'38 min. Earth dist. -5056 Nov 23 j 09:18 25°**Υ**43'24 4.30187 AU min. Earth dist. -5050 May 05 j 07:06 3°**£**15'04 4.15579 AU asc. node -5055 Jan 17 j 14:07 20°**Υ**42'13 -5050 Jun 02 j 05:19 30°R Mp direct $-5055 \text{ Jan } 23 \text{ j } 08:17 \quad 20^{\circ} \Upsilon 39'02$ direct -5050 Jul 04 i 07:53 28° m 24'53 -5055 Apr 18 j 10:15 0°8 -5050 Aug 05 i 03:28 0∘**⊽** evening set -5055 May 31 j 07:58 8°**8**52'25 -5050 Nov 05 j 14:46 17°**£**04'24 evening set -5055 Jun 13 j 18:47 11°**8**49'44 0°17'24 -5050 Nov 18 j 08:48 20°**£**04'18 conjunction conjunction 0°15'09 -5055 Jun 13 j 18:46 11°**8**49'43 0°17'35 -5050 Nov 18 j 08:49 20°**£**04'19 0°15'05 minimum elong minimum elong -5055 Jun 13 j 09:25 11°**8**44'35 -5050 Nov 18 j 05:43 20°**£**02'30 max. Earth dist. 6.34120 AU behind sun begin -5055 Jun 27 j 02:25 14°**8**45'26 -5050 Nov 18 j 11:55 20°**♀**06'08 morning rise behind sun end -5055 Jun 28 j 05:05 15°**႘** max. Earth dist. -5050 Nov 18 j 02:34 20°**♀**00'38 6.10678 AU -5055 Sep 20 j 02:58 0°**Ⅱ** -5050 Dec 01 j 04:56 23°**△**05'29 morning rise -5055 Oct 26 j 01:21 -5050 Dec 31 j 17:29 0°M 2°**Ⅱ**00'32 retrograde -5055 Dec 01 j 01:30 30°R₩ -5049 Mar 16 j 10:43 11°**M**43'45 desc. node -5055 Dec 24 j 21:28 27°**8**05'34 0°56'55 -5049 Apr 10 j 01:54 12°M-40'12 opposition retrograde -5055 Dec 25 j 10:50 27°**8**01'11 4.36912 AU -5049 Jun 09 j 22:35 min. Earth dist. opposition 7°M41'13 0°-16'-35 -5054 Feb 24 j 21:10 22°**8**01'56 -5049 Jun 09 j 17:39 direct min. Earth dist. 7°ML42'50 4.06513 AU -5054 May 14 j 07:57 0°**Ⅱ** -5049 Aug 08 j 04:24 direct 2°M48'18 evening set -5054 Jul 02 j 18:59 10°**Ⅲ**01'00 -5049 Nov 10 j 08:59 15°M evening set -5049 Dec 10 j 02:53 21°M48'56 conjunction -5054 Jul 15 j 20:16 12°**Д**52'40 0°58'30 -5054 Jul 15 j 20:13 12°**Д**52'38 0°58'45 conjunction -5049 Dec 23 j 04:16 24°ML55'09 0°-35'-39 minimum elong max. Earth dist. -5054 Jul 14 j 13:52 12°**Ⅲ**35'58 -5049 Dec 23 j 04:13 24°M 55'07 0°35'53 6.38344 AU minimum elong -5054 Jul 28 j 18:20 15°**I**I42'42 max. Earth dist. -5049 Dec 24 j 00:11 25°ML07'00 6.03578 AU morning rise -5054 Oct 14 j 09:20 -5048 Jan 05 j 08:46 28°ML03'07 morning rise -5054 Nov 26 j 00:57 2°9545'04 -5048 Jan 13 j 15:52 retrograde 0°**√** -5053 Jan 08 i 05:32 30°RⅡ retrograde -5048 May 16 j 05:22 18° ₹13'34 -5048 Jul 15 i 14:30 13° ₹ 10'49 -1°-27'-2 opposition -5053 Jan 25 i 08:00 27°**I**52'42 1°46'21 opposition min. Earth dist. -5053 Jan 26 i 09:24 27°**Ⅲ**44'31 4.38516 AU min. Earth dist. -5048 Jul 14 i 17:24 13° ₹17'52 4.02184 AU direct -5053 Mar 28 j 22:29 22°**Ⅲ**50'30 direct -5048 Sep 11 i 20:41 8°**х** 17′05 -5053 Jun 10 i 20:12 evening set -5047 Jan 14 i 06:54 27° ₹ 30'46 0ംഉ -5053 Aug 03 j 05:29 10°5046'03 -5047 Jan 24 j 19:00 0°ಕ evening set 6.37074 AU max. Earth dist. -5053 Aug 14 j 06:43 13°512'35 -5047 Jan 27 j 15:29 0°**전**40'38 -1°-14'-3 conjunction -5053 Aug 15 j 22:21 13°534'33 conjunction 1°22'46 minimum elong -5047 Jan 27 j 15:26 0°る40'36 1°14'20 minimum elong -5053 Aug 15 j 22:19 13°534'32 1°23'03 max. Earth dist. -5047 Jan 29 j 06:27 1°**る**03'44 6.02272 AU -5053 Aug 28 j 12:18 16°521'46 morning rise morning rise -5047 Feb 10 j 03:32 3°る52'12 -5053 Nov 08 j 04:16 0 $^{\circ}\Omega$ -5047 Jun 21 j 21:22 24°♂03'36 retrograde -5053 Dec 27 j 16:20 -5047 Aug 20 j 17:58 18°₹58'31 retrograde 3°**£**36′57 opposition -2°-4'-51 -5052 Feb 16 j 14:25 30°Rூ -5047 Aug 19 j 13:06 19°**る**08'21 min. Earth dist. 4.04187 AU -5047 Oct 17 j 19:15 14°**정**02'00 opposition -5052 Feb 26 j 11:14 28°\$45'30 2°06'10 direct min. Earth dist. -5052 Feb 27 j 16:46 28°536'07 4.34567 AU -5046 Feb 06 j 04:40 0°≈ direct -5052 Apr 28 j 23:35 23°545'47 evening set -5046 Feb 20 j 06:40 3°≈13'59 -5052 Jul 05 j 21:36 0 $^{\circ}$ Ω evening set -5052 Sep 02 j 07:53 11°**Ω**48'22 conjunction -5046 Mar 05 j 21:40 6°≈24'15 -1°-24'-37 max. Earth dist. -5052 Sep 13 j 03:51 $14^{\circ}\Omega 14'42$ 6.30665 AU minimum elong -5046 Mar 05 j 21:41 6°≈24'16 1°24'51 max. Earth dist. -5046 Mar 07 j 19:18 6°**≈**50'51 6.07276 AU -5052 Sep 14 j 19:59 14° **Ω**37'22 1°23'36 -5046 Mar 19 j 14:39 9°**≈**35'26 conjunction morning rise

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5046 in astronomical counting style is the year 5047 BCE in historical counting style. -5046 Apr 12 j 13:28 15°≈ retrograde -5040 Jan 01 i 08:25 8°**Ω**11'31 opposition -5046 Jul 27 j 03:15 29°≈10'39 -5040 Mar 02 j 03:38 3°**Ω**20'03 2°06'03 retrograde -5046 Sep 24 j 13:45 24°≈05'56 -1°-55'-52 min. Earth dist. -5040 Mar 03 j 09:27 3°**Ω**10'33 4.33344 AU opposition -5040 Mar 30 j 22:26 30° ₽.50 -5046 Sep 23 j 12:32 24°≈14'32 4.11679 AU min. Earth dist. -5046 Nov 22 j 05:06 19°≈06'02 -5040 May 03 j 14:42 28°520'41 direct direct 0°**)**€ -5045 Feb 19 j 23:35 -5040 Jun 06 j 04:09 0 $^{\circ}\Omega$ -5045 Mar 28 j 21:24 -5040 Aug 31 j 09:27 15°**Ω** evening set 8°**₩**01'32 evening set -5040 Sep 06 j 18:56 16°**Ω**25'47 conjunction -5045 Apr 11 j 15:34 11°**米**09'09 -1°-4'-30 max. Earth dist. -5040 Sep 17 j 17:18 18° **Ω**53'55 6.29252 AU -5045 Apr 11 j 15:39 11°**米**09'11 1°04'37 minimum elong max. Earth dist. -5045 Apr 13 j 00:27 11°**米**27'51 6.16605 AU conjunction -5040 Sep 19 j 07:02 19° Ω 15'17 1°21'35 -5045 Apr 25 j 10:04 14°**)** 16'41 -5040 Sep 19 j 07:04 19° **Ω**15'19 morning rise minimum elong 1°21'46 -5045 Jul 17 j 01:00 -5040 Oct 01 j 17:49 22°**Ω**04'22 $0^{\circ}\Upsilon$ morning rise retrograde -5045 Aug 29 j 11:07 2°Y55'51 -5040 Nov 07 j 14:10 -5045 Oct 11 j 19:43 30°R € retrograde -5039 Feb 02 j 15:44 10° Mp 01'51 opposition -5045 Oct 27 j 20:13 27°**米**53'49 -1°-7'-30 opposition -5039 Apr 04 j 18:44 5° Mp 09'09 1°44'06 min. Earth dist. -5045 Oct 27 j 05:33 27° **€** 58'48 4.21838 AU min. Earth dist. -5039 Apr 05 j 18:31 5° My 01'354.24585 AU direct -5045 Dec 26 j 14:24 22°\square 51'14 direct -5039 Jun 05 j 09:47 0° m 12'47 -5044 Mar 07 j 09:11 $0^{\circ}\Upsilon$ evening set -5039 Oct 08 j 11:13 18° m 33'53 evening set -5044 May 02 j 04:56 11°**Υ**23'19 max. Earth dist. -5039 Oct 19 j 23:31 21° mp 13'30 6.19414 AU conjunction -5044 May 15 i 21:27 14°**Υ**25'57 0°-23'-24 conjunction -5039 Oct 21 i 00:33 21° m 28'00 0°53'59 minimum elong $-5044 \text{ May } 15 \text{ j } 21:29 \quad 14^{\circ} \Upsilon 25'58$ 0°23'22 minimum elong -5039 Oct 21 i 00:36 21° m 28'02 0°54'02 max. Earth dist. $-5044 \text{ May } 16 \text{ j } 08:12 \quad 14^{\circ} \Upsilon 31'56$ 6.26892 AU morning rise -5039 Nov 02 j 14:37 24° m 22'40 morning rise $-5044 \text{ May } 29 \text{ i } 12:04 \quad 17^{\circ} \Upsilon 27'29$ -5039 Nov 27 j 15:48 0∘**⊽** -5044 Jul 31 j 17:40 -5038 Mar 09 j 18:41 13°**£**11'36 0° 8 retrograde -5044 Sep 29 j 08:53 5°**8**13'57 -5038 May 09 j 21:18 8°**£**15'55 retrograde opposition 0°47'51 -5044 Nov 27 j 20:54 0°**8**15'49 0°00'00 -5038 May 10 j 07:27 min. Earth dist. 8°**₽**12'39 4.14269 AU opposition -5044 Nov 27 j 23:11 -5038 Jul 09 j 06:42 3°**2**21'59 asc. node 0°**8**15'03 direct -5038 Nov 10 j 10:09 22°**♀**03'52 -5044 Nov 27 j 21:59 0°815'28 4.31295 AU min. Earth dist. evening set -5044 Nov 29 j 20:27 30°R**Y** 0°07'54 -5043 Jan 27 j 22:47 25°**Υ**12'01 -5038 Nov 23 j 05:13 25°**♀**04'38 direct conjunction -5038 Nov 23 j 05:13 25°**♀**04'38 0°07'49 -5043 Mar 27 j 12:11 0°**႘** minimum elong -5043 Jun 04 j 22:28 13°**8**23'14 -5038 Nov 22 j 21:57 25°**£**00'22 evening set behind sun begin -5043 Jun 12 j 07:01 15°**8** -5038 Nov 23 j 12:30 25°**£**08'55 behind sun end -5038 Nov 23 j 03:31 25°**೨**03'39 max. Earth dist. 6.09631 AU -5043 Jun 18 j 08:03 16°**8**19'47 0°23'46 -5038 Dec 06 j 02:25 28°**♀**06'45 conjunction morning rise minimum elong -5043 Jun 18 j 08:01 16°**8**19'46 0°23'58 -5038 Dec 14 j 04:49 0°M max. Earth dist. -5043 Jun 17 j 18:10 16°**8**12'09 6.34827 AU desc. node -5037 Jan 23 j 10:11 8°ML41'57 morning rise -5043 Jul 01 j 14:32 19°**8**14'42 -5037 Mar 03 j 05:44 15° M⋅ -5043 Aug 24 j 02:49 Π °0 retrograde -5037 Apr 15 j 07:25 17° ML46'56 -5043 Oct 30 j 09:10 6°**Ⅲ**27′18 -5037 May 28 j 15:53 15°RM retrograde -5043 Dec 29 j 06:42 1°**Д**32'46 1°05'11 -5037 Jun 15 j 03:25 12°ML47'22 0°-27'-33 opposition opposition min. Earth dist. -5043 Dec 29 j 22:14 1°**П**27'42 4.37206 AU min. Earth dist. -5037 Jun 14 j 19:38 12°M49'55 4.05830 AU -5042 Jan 10 j 07:35 30°R ₩ direct -5037 Aug 13 j 04:55 7°M54'28 -5042 Mar 01 j 09:04 26°829'15 direct -5037 Oct 21 i 04:11 15°M -5042 Apr 20 j 10:08 $\Pi^{\circ}0$ evening set -5037 Dec 15 j 03:38 26°M 56'26 evening set -5042 Jul 07 i 06:08 14°**II**28'14 -5037 Dec 28 i 05:51 max. Earth dist. -5042 Jul 18 j 22:57 17°**Ⅲ**02'11 6.38200 AU conjunction 0°**-**42'-17 **⊘**03'09 0°-42'-17 minimum elong -5037 Dec 28 i 05:48 0°**۶**′03′07 0°42'32 -5042 Jul 20 j 06:17 17°**Ⅲ**19'26 1°03'05 -5037 Dec 28 j 00:34 0°**√** conjunction -5042 Jul 20 i 06:14 17°**II**19'24 1°03'21 max. Earth dist. -5037 Dec 29 j 03:59 0°**∡**16'19 6.03286 AU minimum elong 3°**х** 11'41 -5042 Aug 02 j 02:58 20°**Д**09'00 -5036 Jan 10 j 11:30 morning rise morning rise -5042 Sep 19 j 13:20 0.00 retrograde -5036 May 21 j 09:42 23°**尽** 23'30 retrograde -5042 Nov 30 j 10:41 7°9512'43 opposition -5036 Jul 20 j 17:56 18° ₹20'15 -1°-34'-52 opposition -5041 Jan 29 j 19:34 2°520'38 1°51'06 min. Earth dist. -5036 Jul 19 j 18:57 18°**尽** 27'57 4.02330 AU -5041 Jan 30 j 21:42 -5036 Sep 16 j 22:52 13°**尽** 26'10 min. Earth dist. 2°512'15 4.37971 AU direct -5041 Feb 17 j 19:47 30°RⅡ -5035 Jan 08 j 01:29 0°정 -5041 Apr 02 j 10:16 27°**Ⅲ**18'47 -5035 Jan 19 j 10:55 2°**る**39'37 direct evening set -5041 May 15 j 22:33 0ಂತಾ -5035 Feb 01 j 20:34 5°**る**49'38 -1°-17'-25 evening set -5041 Aug 07 j 15:31 15°5015'48 conjunction max. Earth dist. -5041 Aug 18 j 13:54 17°5541'13 6.36153 AU minimum elong -5035 Feb 01 j 20:31 5°**る**49'36 1°17'43 max. Earth dist. -5035 Feb 03 j 14:27 6°る14'25 6.02834 AU conjunction -5041 Aug 20 j 07:21 18°504'16 1°24'21 morning rise -5035 Feb 15 j 09:14 9°**ට**01'12 minimum elong -5041 Aug 20 j 07:20 18°504'16 1°24'37 retrograde -5035 Jun 26 j 23:02 29°**⋜**08'45 -5041 Sep 01 j 20:47 20°551'35 -5035 Aug 25 j 17:10 24°る03'35 -2°-6'-25 morning rise opposition

min. Earth dist.

-5041 Oct 15 j 20:22 $0^{\circ}\Omega$

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 33 Attention, astronomical year style is used: The year -5035 in astronomical counting style is the year 5036 BCE in historical counting style.

Attention, astronom	ical year style is used: The	he year -5035	in astronomical co	unting style is the year	5036 BCE in historical	counting style	
direct	-5035 Oct 22 j 19:38	19° ප 06'36		max. Earth dist.	-5029 Aug 23 j 01:20	22°513'20	6.35386 AU
	-5034 Jan 19 j 03:45	0° ≈					
evening set	-5034 Feb 25 j 10:34	8° ≈ 16′28		conjunction	-5029 Aug 24 j 17:13	22° © 35'34	1°25'30
				minimum elong	-5029 Aug 24 j 17:12	22° © 35'34	1°25'44
conjunction	-5034 Mar 11 j 02:05	11° ≈ 26′28	-1°-23'-31	morning rise	-5029 Sep 06 j 05:48	25° © 22'53	
minimum elong	-5034 Mar 11 j 02:06	11° ≈ 26′29	1°23'45		-5029 Sep 27 j 12:14	$0^{\circ}\Omega$	
max. Earth dist.	-5034 Mar 12 j 21:47	11° ≈ 51'51	6.08481 AU	retrograde	-5028 Jan 05 j 23:47	12° Ω 47′01	
morning rise	-5034 Mar 24 j 19:40	14° ≈ 37'18		opposition	-5028 Mar 06 j 20:31	7° £ 55'33	2°05'11
	-5034 Mar 26 j 11:07	15° ≈		min. Earth dist.	-5028 Mar 08 j 01:34	7° Ω 46′20	4.32367 AU
	-5034 Jun 09 j 23:23	0° ∀		direct	-5028 May 08 j 05:25	2° Ω 56'43	
retrograde	-5034 Jul 31 j 20:21	4°) €05'07			-5028 Aug 14 j 11:49		
C	-5034 Sep 22 j 00:41	30°R≈		evening set	-5028 Sep 11 j 06:14		
min. Earth dist.	-5034 Sep 28 j 06:47	29° ≈ 09'04	4.13037 AU	max. Earth dist.	-5028 Sep 22 j 04:57		6.28149 AU
opposition	-5034 Sep 29 j 07:24	29° ≈ 00'39	-1°-51'-3		1 3		
direct	-5034 Nov 27 j 01:21	24°≈00'18		conjunction	-5028 Sep 23 j 18:02	23°Ω53'15	1°19'05
	-5033 Jan 29 j 22:19	0°) €		minimum elong	-5028 Sep 23 j 18:04		1°19'16
evening set	-5033 Apr 02 j 21:42			morning rise	-5028 Oct 06 j 05:05		1 1, 10
evening see	3033 ripi 02 j 21:12	12 /(32 13		morning rise	-5028 Oct 20 j 22:24	0° m	
conjunction	-5033 Apr 16 j 16:00	15° ¥ 59'47	0°-59'-41	retrograde	-5027 Feb 07 j 13:15	14° Mp 46'19	
minimum elong	-5033 Apr 16 j 16:04	15° X 59'49	0°59'46	opposition	-5027 Apr 09 j 16:14	9° m 53'16	1°37'58
max. Earth dist.	-5033 Apr 17 j 21:56		6.18023 AU	min. Earth dist.	-5027 Apr 09 j 10:14 -5027 Apr 10 j 14:19	9°M)46'14	4.23415 AU
	-5033 Apr 17 J 21:36 -5033 Apr 30 j 10:12	19° H 06'35	0.18023 AU				4.23413 AU
morning rise		19° Υ 06'33		direct	-5027 Jun 10 j 03:49	4° Mp 57'18	
. 1	-5033 Jun 21 j 14:11			evening set	-5027 Oct 13 j 00:47	23° m 20'05	
retrograde	-5033 Sep 03 j 01:13	7° Υ 38'07	00 501 40		5007.0 + 05 : 14 40	0.60m.1.415.6	0040120
opposition	-5033 Nov 01 j 09:18	2° Υ 36'38		conjunction	-5027 Oct 25 j 14:49		0°48'20
min. Earth dist.	-5033 Oct 31 j 21:35	2° Y 40'35	4.23167 AU	minimum elong	-5027 Oct 25 j 14:52	-	0°48'22
	-5033 Nov 21 j 17:47	30° ₹		max. Earth dist.	-5027 Oct 24 j 18:01		6.18301 AU
direct	-5033 Dec 31 j 08:49	27°) €33'47		morning rise	-5027 Nov 07 j 05:32		
	-5032 Feb 09 j 09:46	0 ° Υ			-5027 Nov 10 j 19:42	0∘ ⊽	
evening set	-5032 May 07 j 00:30	16° Ƴ 03'04		retrograde	-5026 Mar 14 j 19:21	18° ഫ 05'31	
				opposition	-5026 May 14 j 22:13		0°37'52
conjunction	-5032 May 20 j 16:23	19° Ƴ 04'59	0°-16'-48	min. Earth dist.	-5026 May 15 j 05:55	13° ≏ 06'54	4.13287 AU
minimum elong	-5032 May 20 j 16:25	19° Ƴ 05'00	0°16'45	direct	-5026 Jul 14 j 03:07	8° ≏ 15'45	
max. Earth dist.	-5032 May 20 j 23:32	19° Ƴ 08'57	6.28034 AU	evening set	-5026 Nov 15 j 04:13	26° ჲ 59'10	
morning rise	-5032 Jun 03 j 06:08	22° Y 05'42					
	-5032 Jul 10 j 17:42	9° 8		conjunction	-5026 Nov 27 j 23:59	0°M00'37	0°00'42
retrograde	-5032 Oct 03 j 17:33	9° 8 46'45		minimum elong	-5026 Nov 27 j 23:59	0°ML00'37	0°00'35
asc. node	-5032 Oct 07 j 23:25	9° 8 44'58		behind sun begin	-5026 Nov 27 j 15:55	29° ≏ 55'52	
opposition	-5032 Dec 02 j 07:11	4° 8 49'09	0°09'44	behind sun end	-5026 Nov 28 j 08:04		
min. Earth dist.	-5032 Dec 02 j 09:52		4.32176 AU		-5026 Nov 27 j 22:56	0° M .	
	-5031 Jan 20 j 00:45	30° ₹ Υ		max. Earth dist.	-5026 Nov 28 j 00:33	0°M00'55	6.08861 AU
direct	-5031 Feb 01 j 12:06			desc. node	-5026 Dec 03 j 06:38	1°M15'26	
	-5031 Feb 14 j 02:06	0°B		morning rise	-5026 Dec 10 j 22:23	3°M03'34	
	-5031 May 27 j 01:06	_		. 8	-5025 Feb 04 j 07:03		
evening set	-5031 Jun 09 j 13:33			retrograde	-5025 Apr 20 j 09:36		
				opposition	-5025 Jun 20 j 05:17		0°-38'-5
conjunction	-5031 Jun 22 j 21:56	20° 8 50'53	0°30'04	min. Earth dist.	-5025 Jun 19 j 18:55		4.05339 AU
minimum elong	-5031 Jun 22 j 21:53	20° 8 50'52		mm. Earth dist.	-5025 Jul 12 j 22:57		1.05557 110
max. Earth dist.	-5031 Jun 22 j 05:16	20° 8 41'43	6.35385 AU	direct	-5025 Aug 18 j 03:52		
morning rise	-5031 Jul 06 j 03:04	23° 8 45'03	0.55565710	uncet	-5025 Sep 22 j 22:17	15°M	
morning risc	-5031 Aug 04 j 15:48	0° I			-5025 Dec 11 j 17:01	13 ll c 0° x 7	
retrograde	-5031 Nov 03 j 19:07			evening set	-5025 Dec 20 j 02:11	1° × 758'14	
•	-	6° I 01'38	1°13'11	evening set	-3023 Dec 20 J 02.11	1 × 36 14	
opposition	-5030 Jan 02 j 17:14				50241 02:05:22	50.705120	00 401 27
min. Earth dist.	-5030 Jan 03 j 10:55	5°II55'53	4.37419 AU	conjunction	-5024 Jan 02 j 05:33	5° × 105'28	0°-48'-27
direct	-5030 Mar 05 j 22:23	0°II58'20		minimum elong	-5024 Jan 02 j 05:29	5° ₹ 05'26	0°48'42
evening set	-5030 Jul 11 j 17:58		6 20022 ATT	max. Earth dist.	-5024 Jan 03 j 07:45	5° × 21'03	6.03115 AU
max. Earth dist.	-5030 Jul 23 j 06:46	21° 11 29'13	6.38032 AU	morning rise	-5024 Jan 15 j 12:04	8° 🖈 14'29	
	5020 X 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2101 4-:	1007122	retrograde	-5024 May 26 j 12:59	28° 🖈 27'06	10 444 :=
conjunction	-5030 Jul 24 j 16:49		1°07'23	opposition	-5024 Jul 25 j 18:19	23° 🖈 23'31	-1°-41'-47
minimum elong	-5030 Jul 24 j 16:45		1°07'39	min. Earth dist.	-5024 Jul 24 j 19:04		4.02514 AU
morning rise	-5030 Aug 06 j 12:23			direct	-5024 Sep 21 j 22:16		
	-5030 Aug 31 j 17:43	0ං ව			-5024 Dec 21 j 11:58	0°ප	
retrograde	-5030 Dec 04 j 22:22	11° © 42'23		evening set	-5023 Jan 24 j 12:38	7° る 42'34	
opposition	-5029 Feb 03 j 08:33	6° © 50'31	1°55'19				
min. Earth dist.	-5029 Feb 04 j 11:16	6°541'57	4.37478 AU	conjunction	-5023 Feb 06 j 23:03		
direct	-5029 Apr 06 j 23:03	1°549'00		minimum elong	-5023 Feb 06 j 23:01		
evening set	-5029 Aug 12 j 02:06	19° 5 47'08		max. Earth dist.	-5023 Feb 08 j 16:34	11° る 17'13	6.03324 AU

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5023 in astronomical counting style is the year 5024 BCE in historical counting style. opposition -5023 Feb 20 j 12:43 14°る04'25 -5017 Feb 07 j 21:21 11°519'21 1°58'50 morning rise -5023 May 10 j 10:08 min. Earth dist. -5017 Feb 09 j 01:12 11°5510'27 4.37154 AU 0°≈≈ -5023 Jul 01 j 19:36 4°≈08'24 -5017 Apr 11 j 12:46 direct 6°∽18′08 retrograde -5023 Aug 23 j 14:07 30°R♂ -5017 Aug 16 j 11:35 24°516'23 evening set -5023 Aug 29 j 08:52 -5017 Aug 27 j 08:53 26°541'49 min. Earth dist. 29°る12'59 4.05886 AU max. Earth dist. 6.34747 AU -5023 Aug 30 j 13:33 29°る03'13 opposition -2°-7'-3 -5023 Oct 27 j 16:13 24°**⋜**05'46 1°26'07 direct conjunction -5017 Aug 29 j 01:52 27°504'42 -5017 Aug 29 j 01:52 27°504'42 -5023 Dec 29 j 01:14 0°≈ minimum elong 1°26'22 -5017 Sep 10 j 14:00 29°552'03 evening set -5022 Mar 02 j 12:23 13°≈14'26 morning rise -5017 Sep 11 j 04:18 -5022 Mar 10 j 03:11 15°≈ $0^{\circ}\Omega$ -5017 Dec 02 j 04:55 $15^{\circ}\Omega$ -5022 Mar 16 j 04:37 16°≈24'17 -1°-21'-51 -5016 Jan 10 j 14:30 17°**Ω**20'02 conjunction retrograde -5022 Mar 16 j 04:40 16°≈24'18 -5016 Feb 19 j 13:12 15°R**Ω** minimum elong 1°22'04 max. Earth dist. -5022 Mar 17 j 22:43 16°≈48'40 6.09461 AU opposition -5016 Mar 11 j 12:45 12°**Ω**28′21 2°03'35 morning rise -5022 Mar 29 j 22:32 19°≈34'49 min. Earth dist. -5016 Mar 12 j 17:02 12°**Ω**19'22 4.31437 AU -5022 May 17 j 08:00 0°**)**€ direct -5016 May 12 j 19:03 7°**Ω**29'49 retrograde -5022 Aug 05 j 14:25 8°\ 56'17 -5016 Jul 26 j 13:54 15°**Ω** opposition -5022 Oct 03 j 23:25 3°**¥**52′09 -1°-45'-36 evening set -5016 Sep 15 j 16:03 25°**Ω**37'48 min. Earth dist. -5022 Oct 03 j 01:15 3°**)** € 59'43 4.14118 AU max. Earth dist. -5016 Sep 26 j 17:36 $28^{\circ}\Omega 08'33$ 6.26998 AU -5022 Nov 05 j 14:56 30°R≈ direct -5022 Dec 01 j 21:39 28°≈51'22 conjunction -5016 Sep 28 j 03:56 $28^{\circ}\Omega$ 28'08 $1^{\circ}16'08$ -5016 Sep 28 j 03:59 28°**Ω**28'09 -5022 Dec 28 i 10:01 0°**)**€ minimum elong 1°16'17 evening set -5021 Apr 07 j 20:56 17°**米**41'47 -5016 Oct 04 j 21:10 0° m morning rise -5016 Oct 10 j 15:01 1° m 18'17 conjunction -5021 Apr 21 j 15:23 20° \(\frac{4}{4}8'27 \) 0°-54'-31 retrograde -5015 Feb 12 j 09:27 19° m 27'56 -5021 Apr 21 j 15:27 20° € 48'29 0°54'35 -5015 Apr 14 j 12:46 14° mp 34'33 1°31'15 minimum elong opposition -5021 Apr 22 j 19:04 21°\(\mathbf{H}\) 04'06 6.19145 AU min. Earth dist. -5015 Apr 15 j 09:48 14° m 27'50 4.22096 AU max. Earth dist. -5021 May 05 j 09:21 23°\ 54'41 -5015 Jun 14 j 21:01 9° m 38'57 morning rise direct -5021 Jun 02 j 07:12 0°**Υ** evening set -5015 Oct 17 j 14:02 28° m 04'09 -5021 Sep 07 j 12:59 12°**Υ**19'37 -5015 Oct 25 j 21:47 0∘∙თ retrograde -5021 Nov 05 j 21:40 7°**Υ**18'38 0°-49'-34 -5015 Oct 29 j 08:47 0°**2**48'20 6.16926 AU max. Earth dist. opposition -5021 Nov 05 j 10:56 7°**Υ**22'15 4.24235 AU min. Earth dist. -5020 Jan 04 j 23:56 2°**Υ**15'33 -5015 Oct 30 j 04:32 0°**£**59'49 0°42'23 conjunction direct -5015 Oct 30 j 04:35 -5020 May 11 j 19:40 20°**Υ**42'53 0°**£**59'51 0°42'24 evening set minimum elong -5015 Nov 11 j 20:17 3°**£**56'18 morning rise -5020 May 25 j 10:46 23°**Υ**′44'06 0°-10'-8 -5014 Mar 19 j 19:55 22°**♀**58'44 conjunction retrograde -5020 May 25 j 10:46 23°**Υ**44'06 0°10'03 -5014 May 19 j 22:47 18°**♀**02'01 0°27'36 minimum elong opposition -5020 May 25 j 04:11 23°**Υ**40′27 behind sun begin min. Earth dist. -5014 May 20 j 03:48 18° **2**00'24 4.11949 AU behind sun end -5020 May 25 j 17:22 23°**Y**47'45 direct -5014 Jul 18 j 23:03 13°**♀**08'32 max. Earth dist. -5020 May 25 j 13:58 23°**Υ**45'52 6.28988 AU desc. node -5014 Oct 12 j 18:26 23°**2**22'16 morning rise -5020 Jun 07 j 23:39 26°**Y**44'03 -5014 Nov 11 j 17:46 0°M -5020 Jun 22 j 23:43 0°**8** -5014 Nov 19 j 22:51 1°M55'07 evening set -5020 Aug 17 j 21:07 10°\22'34 asc. node -5020 Oct 08 j 04:50 14°820'24 -5014 Dec 02 j 19:48 4°M57'34 0°-6'-36 retrograde conjunction -5020 Dec 06 j 18:04 9°\begin{align*}
23'19 0°19'25 -5014 Dec 02 j 19:48 4°M57'34 0°06'46 opposition minimum elong -5014 Dec 02 j 12:14 min. Earth dist. -5020 Dec 06 j 23:28 9°**8**21'31 4.32945 AU behind sun begin 4°**ጤ**53'07 -5014 Dec 03 i 03:21 direct -5019 Feb 06 i 03:28 4°819'25 behind sun end 5°ML02'01 -5019 May 09 i 12:08 15°8 max. Earth dist. -5014 Dec 03 i 00:54 5°ML00'33 6.07689 AU -5019 Jun 14 j 04:26 22°**8**27'41 evening set morning rise -5014 Dec 15 i 19:13 8°M01'32 -5013 Jan 15 j 11:33 15°M -5019 Jun 27 j 11:38 25°**8**22'47 0°36'11 retrograde -5013 Apr 25 j 16:09 27° ML52'17 conjunction -5019 Jun 27 j 11:35 25°**8**22'46 0°36'23 opposition -5013 Jun 25 j 08:33 22°M 51'39 0°-48'-28 minimum elong -5019 Jun 26 j 16:57 25°**8**12'31 6.35905 AU min. Earth dist. -5013 Jun 24 j 20:58 22°M 55'28 max. Earth dist. 4 04450 AU morning rise -5019 Jul 10 j 15:24 28°**8**16'11 direct -5013 Aug 23 j 04:03 17° M 58'36 -5013 Nov 24 j 05:22 -5019 Jul 18 j 14:30 $0^{\circ}\Pi$ 0°×7 retrograde -5019 Nov 08 j 03:40 15°**Ⅲ**24'49 evening set -5013 Dec 25 j 03:16 7°**х**¹04'31 opposition -5018 Jan 07 j 04:02 10°**Ц**31'06 1°20'45 min. Earth dist. -5018 Jan 07 j 22:16 10°**Ⅲ**25'10 4.37685 AU -5012 Jan 07 j 07:32 10° **₹**12'25 0°-54'-22 conjunction -5018 Mar 10 j 10:12 5°**Ⅱ**27'56 -5012 Jan 07 j 07:28 10° **₹** 12'23 direct minimum elong 0°54'37 -5018 Jul 16 j 05:32 23°**Ⅲ**26'07 -5012 Jan 08 j 11:20 10°**尽** 28'57 evening set max. Earth dist. 6.02564 AU -5018 Jul 27 j 16:19 25°**耳**57'08 6.38007 AU -5012 Jan 20 j 15:20 13°**尽** 22'10 max. Earth dist. morning rise -5012 Apr 12 j 17:13 0°ಕ conjunction -5018 Jul 29 j 03:04 26° **Ⅱ**16'18 1°11'16 retrograde -5012 May 31 j 16:42 3°**る**36'52 minimum elong -5018 Jul 29 j 03:01 26°**Ⅲ**16'16 1°11'33 -5012 Jul 19 j 22:57 30°R.✓ morning rise -5018 Aug 10 j 21:24 29°**Ⅲ**04'56 opposition -5012 Jul 30 j 20:57 28°**尽** 32'55 -1°-48'-7 -5018 Aug 15 j 02:10 0°€ min. Earth dist. -5012 Jul 29 j 19:34 28°**尽** 41'29 4.02390 AU

direct

-5012 Sep 26 j 22:06 23° ₹38'12

retrograde

-5018 Dec 09 j 10:09 16°511'05

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 35 Attention, astronomical year style is used: The year -5012 in astronomical counting style is the year 5013 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	ne year -5012	in astronomical cou	inting style is the year		0 ,	
	-5012 Nov 30 j 10:56	8°0		max. Earth dist.	-5006 Jul 31 j 21:23	0° © 17'06	6.38446 AU
evening set	-5011 Jan 29 j 18:06	12° る 53'00					
				conjunction	-5006 Aug 02 j 09:46	0°937'10	1°14'35
conjunction	-5011 Feb 12 j 05:33	16° る 03'25	-1°-22'-20	minimum elong	-5006 Aug 02 j 09:43	0°937'08	1°14'51
minimum elong	-5011 Feb 12 j 05:32	16° る 03'24	1°22'36	morning rise	-5006 Aug 15 j 02:51	3° © 25'08	
max. Earth dist.	-5011 Feb 14 j 00:27	16° පි 28'44	6.03626 AU	retrograde	-5006 Dec 13 j 16:16	20°531'07	
morning rise	-5011 Feb 25 j 19:56	19° る 15'17		opposition	-5005 Feb 12 j 06:29	15° © 39'28	2°01'27
	-5011 Apr 15 j 21:42	0° ≈		min. Earth dist.	-5005 Feb 13 j 10:37	15°530'28	4.37144 AU
retrograde	-5011 Jul 06 j 21:48	9° ≈ 16′08		direct	-5005 Apr 15 j 21:10	10°538'32	
min. Earth dist.	-5011 Sep 03 j 09:28	4° ≈ 20′26	4.06586 AU	evening set	-5005 Aug 20 j 16:50	28° 5 36'07	
opposition	-5011 Sep 04 j 13:12	4°≈10'58	-2°-6'-45		-5005 Aug 26 j 23:37	$0^{\circ}\Omega$	
	-5011 Oct 11 j 07:46	30°Ŗる		max. Earth dist.	-5005 Aug 31 j 13:24	1° Ω 01′22	6.34274 AU
direct	-5011 Nov 01 j 18:14	29° ප 13'05					
	-5011 Nov 23 j 06:45	0° ≈		conjunction	-5005 Sep 02 j 06:25	1° Ω 24'19	1°26'12
	-5010 Feb 21 j 00:59	15° ≈		minimum elong	-5005 Sep 02 j 06:25	1° Ω 24'19	1°26'26
evening set	-5010 Mar 07 j 18:11	18° ≈ 20'44		morning rise	-5005 Sep 14 j 17:57	4° Ω 11'38	
8				8 21	-5005 Nov 06 j 14:41		
conjunction	-5010 Mar 21 j 11:06	21° ≈ 30′26	-1°-19'-31	retrograde	-5004 Jan 15 j 01:55		
minimum elong	-5010 Mar 21 j 11:09	21°≈30'28	1°19'43	opposition	-5004 Mar 16 j 00:39	16° Ω 51'27	2°01'16
max. Earth dist.	-5010 Mar 23 j 05:15	21°≈54'46	6.10523 AU	min. Earth dist.	-5004 Mar 17 j 06:02	16° Ω 42'07	4.30507 AU
morning rise	-5010 Apr 04 j 05:21	24°≈40'39	0.10323710	mm. Lartii dist.	-5004 Mar 31 j 00:08	15°RΩ	4.50507 710
morning rise	-5010 Apr 27 j 23:50	0° ∀		direct	-5004 May 17 j 06:08	13° Ω 53'16	
retrograde	-5010 Apr 27 j 23:50	13° ¥ 55'00		uncet	-5004 Jul 02 j 15:13		
opposition	-5010 Aug 10 j 09:37	8° X 53'00	-1°-39'-15	evening set	-5004 Sep 19 j 21:56	0° mp 02'54	
min. Earth dist.	-5010 Oct 08 j 18:30	8° H 58'49	4.15458 AU	evening set		0°10/02/34 0°10/0	
	v		4.13438 AU	F 4 F 4	-5004 Sep 19 j 16:48		(25(02 AII
direct	-5010 Dec 06 j 19:12	3°) € 50'13		max. Earth dist.	-5004 Sep 30 j 22:39	2° Mp 33'42	6.25683 AU
evening set	-5009 Apr 12 j 23:12	22° H 3/32			50040 . 00:00 51	20 W	1010150
	5000 4 06:1501	2521/ 12122	00 401 50	conjunction	-5004 Oct 02 j 09:51	2° m 53'48	1°12'50
conjunction	-5009 Apr 26 j 17:21	25°) 43'28	0°-48'-52	minimum elong	-5004 Oct 02 j 09:54	2° m 53'50	1°12'58
minimum elong	-5009 Apr 26 j 17:25	25°) (43′30	0°48'56	morning rise	-5004 Oct 14 j 21:24	5° m 44'41	
max. Earth dist.	-5009 Apr 27 j 17:35	25° ¥ 57′08	6.20693 AU	retrograde	-5003 Feb 17 j 01:03		
morning rise	-5009 May 10 j 11:00	28°) 48′53		opposition	-5003 Apr 19 j 05:24	19° m 07'38	1°24'12
	-5009 May 15 j 18:35	0° Υ		min. Earth dist.	-5003 Apr 20 j 00:47	19° m 01'27	4.20466 AU
retrograde	-5009 Sep 12 j 03:38	17° Y ′05′38		direct	-5003 Jun 19 j 08:58	14° Mp 12'18	
opposition	-5009 Nov 10 j 12:14	12° Y ′05′12	0°-40'-1		-5003 Oct 10 j 06:50	0∘ ⊽	
min. Earth dist.	-5009 Nov 10 j 03:50	12° Y ′08′01	4.25857 AU	evening set	-5003 Oct 22 j 00:10	2° ≏ 41′26	
direct	-5008 Jan 09 j 20:04	7° Ƴ 01'57					
evening set	-5008 May 16 j 15:46	25° Y 25′06		conjunction	-5003 Nov 03 j 15:34	5° ≙ 38'13	0°36'22
				minimum elong	-5003 Nov 03 j 15:37	5° ≏ 38'15	0°36'22
conjunction	-5008 May 30 j 06:03	28° Y 25′18	0°-3'-24	max. Earth dist.	-5003 Nov 02 j 23:00	5° ≏ 28'32	6.15143 AU
minimum elong	-5008 May 30 j 06:02	28° Y 25′17	0°03'18	morning rise	-5003 Nov 16 j 08:10	8° 亞 35'53	
behind sun begin	-5008 May 29 j 21:49	28° Y ′20'46		retrograde	-5002 Mar 24 j 20:53	27° ≏ 47'21	
behind sun end	-5008 May 30 j 14:15	28° Ƴ 29'49		opposition	-5002 May 24 j 21:10	22° ♀ 50'11	0°17'26
max. Earth dist.	-5008 May 30 j 07:54	28° Y 26'16	6.30588 AU	min. Earth dist.	-5002 May 25 j 01:15	22° ≏ 48'51	4.10143 AU
	-5008 Jun 06 j 09:09	0°8		direct	-5002 Jul 23 j 17:32	17° ≏ 56'51	
morning rise	-5008 Jun 12 j 17:35	1° 8 24'04		desc. node	-5002 Aug 23 j 21:01	19° ≙ 30'21	
asc. node	-5008 Jun 27 j 09:15	4° 8 34'56			-5002 Oct 25 j 20:02	0°M	
	-5008 Aug 22 j 16:42	15° ∀		evening set	-5002 Nov 24 j 16:42	6° ™ 48′38	
retrograde	-5008 Oct 12 j 12:48	18° 8 53'32			•		
•	-5008 Dec 03 i 04:23	15° R ႘		conjunction	-5002 Dec 07 j 14:39	9° M 52'17	0°-13'-36
opposition	-5008 Dec 11 j 04:40	13° 8 56'59	0°28'52	minimum elong	-5002 Dec 07 j 14:37	9°M52'16	0°13'47
min. Earth dist.	-5008 Dec 11 j 10:51	13° 8 54'56		behind sun begin	-5002 Dec 07 j 10:13	9° ™ 49'40	
direct	-5007 Feb 10 j 16:52	8° 8 53'09		behind sun end	-5002 Dec 07 j 19:02	9° ™ 54'52	
	-5007 Apr 19 j 01:36			max. Earth dist.	-5002 Dec 07 j 21:31	9°M56'21	6.06030 AU
evening set	-5007 Jun 18 j 18:02			morning rise	-5002 Dec 20 j 15:30	12°M57'34	0.00000110
evening sec	5007 Jun 10 j 10.02	20 03730		morning rise	-5002 Dec 29 j 08:34	15°M	
conjunction	-5007 Jul 01 j 23:38	29° ∺ 51'29	0°41'56		-5001 Mar 17 j 16:48	0° ⊼	
minimum elong	-5007 Jul 01 j 23:35		0°42'10	retrograde	-5001 Apr 30 j 19:50	2° ∡ 56'07	
max. Earth dist.	-5007 Jul 01 j 23:33	29° 8 39'20	6.37114 AU	renograde	-5001 Apr 30 j 19.30		
max. Earth dist.	-	0°Ⅱ	0.3/114 AU	opposition			00_58! 21
morning ris-	-5007 Jul 02 j 15:08			opposition	-5001 Jun 30 j 10:48		0°-58'-21
morning rise	-5007 Jul 15 j 02:02	2°∏43'48		min. Earth dist.	-5001 Jun 29 j 20:06		4.03124 AU
retrograde	-5007 Nov 12 j 11:42	19° ∏ 48'32	1927122	direct	-5001 Aug 28 j 01:02	23°11L01'4/	
opposition	-5006 Jan 11 j 12:59	14° ∏ 55'13	1°27'33	ovenin+	-5001 Nov 04 j 00:42		
min. Earth dist.	-5006 Jan 12 j 09:50	14° ∏ 48'27	4.38558 AU	evening set	-5001 Dec 30 j 05:11	12° X '12'22	
direct	-5006 Mar 14 j 23:00	9° ∏ 52'14			5000 I 12:10:11	150 70111	00 501 47
evening set	-5006 Jul 20 j 13:26	27° ∏ 47'41		conjunction	-5000 Jan 12 j 10:44		0°-59'-47
	-5006 Jul 30 j 14:21	0ಂಹ		minimum elong	-5000 Jan 12 j 10:40	13 X.71.08	1°00'03

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -5000 in astronomical counting style is the year 5001 BCE in historical counting style. -5000 Jan 13 j 18:14 15° ₹ 39'57 6.01691 AU retrograde -4995 Nov 16 j 19:35 24°**I**I15'54 max. Earth dist. -5000 Jan 25 j 19:36 18° ₹31'47 -4994 Jan 15 j 23:50 19°**Ⅲ**22'55 1°34'08 morning rise opposition -5000 Mar 18 j 01:01 0°궁 min. Earth dist. -4994 Jan 16 j 21:31 19°**Д**15'55 4.38796 AU 8°**ප්**49'21 -4994 Mar 19 j 10:39 14°**Ц**20'12 -5000 Jun 05 j 23:01 direct retrograde 3°る53'50 4.02075 AU -4994 Jul 14 j 14:51 min. Earth dist. -5000 Aug 03 j 22:11 0.ಎ opposition -5000 Aug 05 j 00:16 3°₹45'01 -1°-53'-32 evening set -4994 Jul 25 j 00:01 2°915'08 30°₽**,∡**7 4°9542'48 -5000 Sep 05 j 17:59 max. Earth dist. -4994 Aug 05 j 04:20 6.38224 AU 28°**х** 49′53 -5000 Oct 02 j 01:09 direct -5000 Oct 28 j 08:03 0°₹ conjunction -4994 Aug 06 j 19:01 5°904'10 1°17'39 evening set -4999 Feb 04 j 00:59 18°る06'25 minimum elong -4994 Aug 06 j 18:58 5°904'08 1°17'54 morning rise -4994 Aug 19 j 11:08 7°951'48 -4999 Feb 17 j 13:29 21°♂17'11 -1°-23'-48 -4994 Dec 18 j 05:25 conjunction retrograde 24°959'57 -4999 Feb 17j13:28 21°る17'10 1°24'04 minimum elong opposition -4993 Feb 16 j 20:01 20°**©**08'27 2°03'37 max. Earth dist. -4999 Feb 19 j 10:58 21°**♂**43'57 6.03884 AU min. Earth dist. -4993 Feb 18 j 01:58 19°**©**58'54 4.36486 AU morning rise -4999 Mar 03 j 04:44 24°る29'15 direct -4993 Apr 20 j 11:28 15°907'52 -4999 Mar 27 j 08:46 -4993 Aug 10 j 21:58 $0^{\circ}\Omega$ retrograde -4999 Jul 11 j 23:41 14°≈26'12 evening set -4993 Aug 25 j 02:20 3° **Ω**06'47 min. Earth dist. -4999 Sep 08 j 08:51 9°**≈**30'46 4.07391 AU max. Earth dist. -4993 Sep 04 j 22:10 5°**Ω**32'02 6.33217 AU opposition -4999 Sep 09 j 13:28 9°≈21'00 -2°-5'-22 direct -4999 Nov 06 j 19:24 4°≈22'37 conjunction -4993 Sep 06 j 15:28 5° **Ω**55'12 1°25'50 -4998 Feb 02 j 10:19 15°≈ minimum elong -4993 Sep 06 j 15:28 5°**Ω**55'12 1°26'04 evening set -4998 Mar 13 j 00:53 23°≈28'23 morning rise -4993 Sep 19 i 02:40 8°**Ω**42'48 -4993 Oct 18 i 05:09 $15^{\circ}\Omega$ conjunction -4998 Mar 26 i 18:09 26°≈37'43 -1°-16'-32 retrograde -4992 Jan 19 i 18:01 $26^{\circ}\Omega$ 20'07 -4998 Mar 26 j 18:13 26°≈37'45 1°16'42 opposition -4992 Mar 20 j 18:48 $21^{\circ}\Omega$ 28'11 $1^{\circ}58'12$ minimum elong -4998 Mar 28 j 10:09 27°≈00'44 min. Earth dist. -4992 Mar 21 j 22:34 21° Ω 19'22 4.29129 AU max. Earth dist. 6.11771 AU -4998 Apr 09 j 12:45 29°≈47'27 -4992 May 21 j 20:18 $16^{\circ}\Omega 30'27$ morning rise direct -4998 Apr 10 j 10:45 -4992 Sep 03 j 04:45 0°**∀** 0° m -4998 Aug 15 j 05:07 18° **₭** 53'34 -4992 Sep 24 j 09:40 retrograde 4° m 43'00 evening set -4998 Oct 13 j 13:30 13°¥50'04 -1°-32'-7 opposition 1°08'54 -4998 Oct 12 j 17:03 13° ¥ 57'02 4.16966 AU -4992 Oct 06 j 21:49 7° m 34'39 min. Earth dist. conjunction 7°**™**34'41 -4992 Oct 06 j 21:52 -4998 Dec 11 j 19:00 8° **★**48'30 minimum elong 1°09'01 direct -4997 Apr 18 j 00:59 27° **∺** 31'51 max. Earth dist. -4992 Oct 05 j 13:08 7° Mp 15'54 6.24110 AU evening set -4997 Apr 29 j 01:13 0°**Υ** -4992 Oct 19 j 09:45 10° m 26'23 morning rise -4991 Feb 22 j 02:09 28° m 51'13 retrograde 0°**Υ**37'01 0°-42'-51 -4997 May 01 j 19:04 -4991 Apr 24 j 05:21 23° m 57'08 1°16'09 conjunction opposition -4997 May 01 j 19:07 -4991 Apr 24 j 23:46 23° m 51'15 4.18799 AU minimum elong 0° **Y**37'03 0° 42'53 min. Earth dist. max. Earth dist. -4997 May 02 j 17:57 0°**Υ**49'53 6.22331 AU direct -4991 Jun 24 j 05:39 19° m 02'13 morning rise -4997 May 15 j 11:57 3°**Y**41′27 -4991 Sep 22 j 16:25 0∘<u>ଫ</u> retrograde -4997 Sep 16 j 16:25 21°**Υ**49'43 evening set -4991 Oct 26 j 17:02 7°**£**35′07 -4997 Nov 15 j 02:12 16°**Y**49'47 0°-30'-12 opposition min. Earth dist. -4997 Nov 14 j 19:16 16°**Υ**'52'06 4.27435 AU -4991 Nov 08 j 09:11 10°**♀**32'57 0°29'43 conjunction -4996 Jan 14 j 13:42 11°**Υ**46'21 -4991 Nov 08 j 09:14 10°**♀**32'59 0°29'41 direct minimum elong -4996 May 05 j 20:51 26°**Υ**42'59 max. Earth dist. -4991 Nov 07 j 18:57 10°**£**24'37 asc. node 6.13555 AU -4996 May 21 j 11:18 0°**8**05'34 -4991 Nov 21 j 02:59 13°**2**31'49 evening set morning rise -4996 May 21 j 01:08 0°8 -4990 Feb 14 i 07:54 0°M retrograde -4990 Mar 30 i 01:47 2°M51'24 -4996 Jun 04 i 00:22 3°804'44 0°03'32 conjunction -4990 May 13 i 07:47 30°R **♀** -4996 Jun 04 i 00:22 minimum elong 3°**8**04'44 0°03'39 opposition -4990 May 30 i 01:37 27° **2**53'43 0°06'30 behind sun begin -4996 Jun 03 j 16:11 3°800'15 min. Earth dist. -4990 May 30 j 01:51 27°**♀**53'39 4.08801 AU behind sun end -4996 Jun 04 j 08:32 3°809'13 desc. node -4990 Jul 02 j 17:05 24°**£**05'38 -4996 Jun 03 j 21:14 3°803'03 6.31960 AU direct -4990 Jul 28 j 15:59 23°**£**00'37 max. Earth dist. -4996 Jun 17 j 10:54 6°802'29 -4990 Oct 05 j 12:00 0°M morning rise -4996 Jul 30 j 17:50 15°**8** evening set -4990 Nov 29 j 16:05 11°M 55'48 retrograde -4996 Oct 16 j 23:19 23°826'20 -4996 Dec 15 j 15:56 18°\(\mathbf{2}\)30'16 0°38'15 conjunction -4990 Dec 12 j 15:08 15°M00'21 0°-20'-53 opposition min. Earth dist. -4996 Dec 16 j 01:09 18°**8**27'14 4.35472 AU minimum elong -4990 Dec 12 j 15:06 15°ML00'20 0°21'04 -4995 Jan 14 j 05:26 15°R₩ -4990 Dec 12 j 14:33 15°M -4995 Feb 15 j 08:53 13°**8**26'26 max. Earth dist. -4990 Dec 13 j 02:45 15° ML07'15 6.05075 AU direct -4995 Mar 19 j 21:27 15°**8** -4990 Dec 25 j 17:05 morning rise 18°**™**06'34 -4995 Jun 16 j 12:49 Π $^{\circ}0$ -4989 Feb 18 j 08:02 0°**∡** evening set -4995 Jun 23 j 07:50 1°**Ⅲ**28'17 retrograde -4989 May 06 j 04:23 8°**х** 09′54 opposition -4989 Jul 05 j 17:03 3°**∡**08'11 -1°-8'-10 conjunction -4995 Jul 06 j 12:14 4°**I**I21'28 0°47'35 min. Earth dist. -4989 Jul 05 j 00:33 3°**х** 13'40 4.02678 AU minimum elong -4995 Jul 06 j 12:11 4°**Ⅲ**21'26 0°47'50 -4989 Jul 31 j 10:12 30°RML -4995 Jul 05 j 12:35 4°**Ⅱ**08'29 6.37773 AU -4989 Sep 02 j 04:59 28°M14'55 max. Earth dist. direct -4995 Jul 19 j 13:03 7°**Ⅱ**12'54 -4989 Oct 04 j 17:25 morning rise

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 37 Attention, astronomical year style is used: The year -4988 in astronomical counting style is the year 4989 BCE in historical counting style.

Attention, astronom	ical year style is used: Tl	ne year -4988	in astronomical cou	inting style is the year	4989 BCE in historical of	counting style.	
evening set	-4988 Jan 04 j 09:49	17° ∡ ¹26'42		max. Earth dist.	-4983 Jul 09 j 18:39		6.37906 AU
				morning rise	-4983 Jul 23 j 22:18		
conjunction	-4988 Jan 17 j 16:22	20° ∡ ³35'53		retrograde	-4983 Nov 21 j 05:23		
minimum elong	-4988 Jan 17 j 16:18	20° ∡ ³35'51	1°05'10	opposition	-4982 Jan 20 j 10:17		1°40'05
max. Earth dist.	-4988 Jan 19 j 03:40	20° ∡ 56′54	6.01784 AU	min. Earth dist.	-4982 Jan 21 j 10:16		4.38491 AU
morning rise	-4988 Jan 31 j 02:14	23° ∡ ¹46'51		direct	-4982 Mar 23 j 23:08		
	-4988 Feb 27 j 04:10	0°る			-4982 Jun 27 j 15:13	0.20	
retrograde	-4988 Jun 11 j 03:53	14°る02'56	4.00720.444	evening set	-4982 Jul 29 j 09:41	6°542'28	6 27405 ATT
min. Earth dist.	-4988 Aug 08 j 23:51	9° る 07'43	4.02738 AU	max. Earth dist.	-4982 Aug 09 j 13:12	9° © 09'59	6.37495 AU
opposition	-4988 Aug 10 j 03:32		-1°-58'-4		4002 4 11:02.51	00621122	1920112
direct	-4988 Oct 07 j 03:40	4°る02'51		conjunction minimum elong	-4982 Aug 11 j 03:51	9°531'22	
evening set	-4987 Feb 09 j 07:12	23 01/39		U	-4982 Aug 11 j 03:48	9°931'21	1°20'28
conjunction	-4987 Feb 22 j 20:19	260至20110	-1°-24'-40	morning rise retrograde	-4982 Aug 23 j 18:55 -4982 Dec 22 j 17:23	12°518'53 29°530'54	
minimum elong	-4987 Feb 22 j 20:19	26°る28'10 26°る28'10	1°24'56	opposition	-4982 Dec 22 j 17:23 -4981 Feb 21 j 10:21		2°05'03
max. Earth dist.	-4987 Feb 24 j 17:09	26° පි 54'28	6.05015 AU	min. Earth dist.	-4981 Feb 22 j 15:36		4.35405 AU
morning rise	-4987 Mar 08 j 12:16	20 33 428 29° る 39'58	0.03013 AO	direct	-4981 Apr 24 j 23:48	19° © 39'16	4.55405 AO
morning rise	-4987 Mar 09 j 22:45	0°≈		uncer	-4981 Jul 24 j 11:08	0°Ω	
	-4987 May 23 j 04:09	15° ≈		evening set	-4981 Aug 29 j 12:52	7° Ω 40'36	
retrograde	-4987 Jul 16 j 21:20	19° ≈ 29'52		max. Earth dist.	-4981 Sep 09 j 08:34		6.31872 AU
1011081440	-4987 Sep 10 j 03:18	15°R≈		man zarm ust.	1901 Sep 09 j 00.5 .	10 00010	0.51072110
min. Earth dist.	-4987 Sep 13 j 06:54	14° ≈ 34'13	4.08857 AU	conjunction	-4981 Sep 11 j 01:27	10°Ω29'19	1°24'54
opposition	-4987 Sep 14 j 10:44	14° ≈ 24'42	-2°-3'-5	minimum elong	-4981 Sep 11 j 01:28		1°25'07
direct	-4987 Nov 11 j 19:56	9° ≈ 25'46		morning rise	-4981 Sep 23 j 12:33		
	-4986 Jan 11 j 14:20	15° ≈		3	-4981 Oct 01 j 04:53		
evening set	-4986 Mar 18 j 03:45	28° ≈ 27'40			-4981 Dec 29 j 19:00	0° m	
Č	-4986 Mar 24 j 21:19	0°) €		retrograde	-4980 Jan 24 j 14:20	1° m 01'15	
	,			C	-4980 Feb 19 j 11:11	30°R€	
conjunction	-4986 Mar 31 j 21:32	1°) 36′26	-1°-13'-6	opposition	-4980 Mar 25 j 14:48	26° Ω 09'07	1°54'18
minimum elong	-4986 Mar 31 j 21:36	1°) 36′29	1°13'16	min. Earth dist.	-4980 Mar 26 j 18:14	26° Ω 00′24	4.27601 AU
max. Earth dist.	-4986 Apr 02 j 12:50	1° ¥ 58'59	6.13454 AU	direct	-4980 May 26 j 14:17	21° Ω 11'47	
morning rise	-4986 Apr 14 j 15:59	4°){ 45′24			-4980 Aug 15 j 17:38	0° m	
retrograde	-4986 Aug 19 j 20:23	23°) 42′21		evening set	-4980 Sep 28 j 23:01	9° ™ 27'22	
min. Earth dist.	-4986 Oct 17 j 10:02	18°) 45′35	4.18675 AU	max. Earth dist.	-4980 Oct 10 j 05:24	12°M 02'27	6.22549 AU
opposition	-4986 Oct 18 j 04:33	18° ∺ 39'18	-1°-24'-38				
direct	-4986 Dec 16 j 13:54	13°) € 37′24		conjunction	-4980 Oct 11 j 11:34	12° m 19'49	1°04'27
	-4985 Apr 12 j 15:14	0 ° $\mathbf{\Upsilon}$		minimum elong	-4980 Oct 11 j 11:37	12°Mp 19'51	1°04'33
evening set	-4985 Apr 22 j 22:17	2° Ƴ 16′29		morning rise	-4980 Oct 24 j 00:06		
					-4979 Jan 07 j 11:37	0∘ ⊽	
conjunction	-4985 May 06 j 15:50	5° Y 20'47	0°-36'-47	retrograde	-4979 Feb 27 j 02:28	3° ≏ 44'57	
minimum elong	-4985 May 06 j 15:53	5° Y 20'49	0°36'47		-4979 Apr 20 j 03:12	-	
max. Earth dist.	-4985 May 07 j 09:41	5° Y 30'47	6.23922 AU	opposition	-4979 Apr 29 j 06:43		1°07'26
morning rise	-4985 May 20 j 08:15	8° Υ 24'18		min. Earth dist.	-4979 Apr 29 j 21:34		4.17321 AU
retrograde	-4985 Sep 21 j 01:42	26°Υ25'05	00.201.24	direct	-4979 Jun 29 j 01:21		
opposition	-4985 Nov 19 j 12:43	21°Υ25'39	0°-20'-34		-4979 Sep 01 j 19:11	0° ⊽	
min. Earth dist.	-4985 Nov 19 j 08:31	21° Υ 27'04 16° Υ 22'01	4.28774 AU	evening set	-4979 Oct 31 j 11:10	12° £ 31'32	
direct	-4984 Jan 19 j 04:53	20° Y 54'21		aaniumatian	4070 Nov. 12 : 04:09	150 0 20115	0922147
asc. node	-4984 Mar 15 j 17:52 -4984 May 04 j 12:03	0° 8		conjunction minimum elong	-4979 Nov 13 j 04:08 -4979 Nov 13 j 04:10	15° ⊆ 30'15	0°22'47 0°22'44
evening set	-4984 May 26 j 03:00	4° 8 38'23		max. Earth dist.	-4979 Nov 12 j 18:04	15° ⊆ 3010	6.12297 AU
evening set	-4964 May 20 J 05.00	4 03623		morning rise	-4979 Nov 25 j 22:56	13 = 2421 18° ⊆ 30'08	0.12297 AU
conjunction	-4984 Jun 08 j 15:10	7° 8 36'44	0°10'05	morning risc	-4978 Jan 18 j 08:29	0°M	
minimum elong	-4984 Jun 08 j 15:09	7° 8 36'43	0°10'13	retrograde	-4978 Apr 04 j 08:15	7° M 56'18	
behind sun begin	-4984 Jun 08 j 08:40	7° 8 33'10	0 10 15	desc. node	-4978 May 11 j 17:11	5°M50'12	
behind sun end	-4984 Jun 08 j 21:38	7° 8 40'17		opposition	-4978 Jun 04 j 06:32	2°M57'59	0°-4'-33
max. Earth dist.	-4984 Jun 08 j 09:28	7° 8 33'37	6.32957 AU	min. Earth dist.	-4978 Jun 04 j 04:35	2°M58'37	4.07849 AU
morning rise	-4984 Jun 22 j 00:20	10° 8 33'32	0.52507110	min. Burun dige.	-4978 Jun 28 j 18:48	30°R ≏	0,01,110
	-4984 Jul 12 j 16:24	15°8		direct	-4978 Aug 02 j 17:39	28° £ 04'58	
retrograde	-4984 Oct 21 j 06:20	27° 8 53'26			-4978 Sep 06 j 05:25	0°M	
opposition	-4984 Dec 20 j 00:41	22° 8 57'54	0°47'09		-4978 Nov 25 j 23:51		
min. Earth dist.	-4984 Dec 20 j 11:52	22° 8 54'13	4.36069 AU	evening set	-4978 Dec 04 j 15:42		
direct	-4983 Feb 19 j 20:33	17° 8 54'09		Č	,		
	-4983 May 30 j 19:11	0°II		conjunction	-4978 Dec 17 j 15:47	20°M07'15	0°-28'-1
evening set	-4983 Jun 27 j 19:38	5° Ⅱ 55'08		minimum elong	-4978 Dec 17 j 15:45		0°28'13
	-			max. Earth dist.	-4978 Dec 18 j 07:27		6.04506 AU
conjunction	-4983 Jul 10 j 22:36	8° Ⅱ 47'41	0°52'50	morning rise	-4978 Dec 30 j 18:52	23°M14'12	
minimum elong	-4983 Jul 10 j 22:32	8° Ⅱ 47'39	0°53'04		-4977 Jan 29 j 08:18	0°⊀	

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -4977 in astronomical counting style is the year 4978 BCE in historical counting style. -4977 May 11 j 10:03 13° ₹ 20'18 direct -4971 Feb 24 j 09:21 22°**8**23'42 retrograde -4977 Jul 10 j 21:37 8°**₰**18'07 -1°-17'-22 -4971 May 11 j 17:45 opposition 0°Π -4977 Jul 10 j 02:43 -4971 Jul 02 j 07:59 10°**Ⅲ**24'15 min. Earth dist. 8°**√**24'25 4.02576 AU evening set -4971 Jul 14 j 04:54 13°**Д**00'22 6.37961 AU -4977 Sep 07 j 06:37 3°**∡**¹24'41 max. Earth dist. direct -4976 Jan 09 j 13:47 22°**尽** 36'47 evening set -4971 Jul 15 j 09:45 13°**Ⅱ**16'15 conjunction 0°57'51 -4971 Jul 15 j 09:42 13°**Ⅱ**16'13 -4976 Jan 22 j 21:09 25°**х** 46'11 -1°-9'-27 conjunction minimum elong 0°58'05 -4976 Jan 22 j 21:05 25°**х** 46'09 -4971 Jul 28 j 08:01 16°**Ⅱ**06'33 minimum elong 1°09'44 morning rise max. Earth dist. -4976 Jan 24 j 09:26 26°**尽** 07'44 6.02120 AU -4971 Oct 10 j 17:00 0.ಎ morning rise -4976 Feb 05 j 08:00 28° ₹ 57'21 retrograde -4971 Nov 25 j 15:08 3°9510'13 -4976 Feb 09 j 18:43 0°る -4970 Jan 11 j 09:25 30°Ŗ**Ⅱ** -4970 Jan 24 j 21:54 28°**Ⅲ**17'53 retrograde -4976 Jun 16 j 05:48 19°**정**11'02 opposition 1°45'34 min. Earth dist. -4976 Aug 14 j 00:15 14°쥥15'48 4.03490 AU min. Earth dist. -4970 Jan 25 j 22:39 28°**Ⅱ**09'56 4.38191 AU opposition -4976 Aug 15 j 04:31 14°**る**06'12 -2°-1'-39 direct -4970 Mar 28 j 11:32 23°**Ⅲ**15'44 direct -4976 Oct 12 j 05:28 9°**る**10'14 -4970 Jun 07 j 22:06 0ಂತಾ evening set -4975 Feb 14 j 11:41 28°₹23'22 evening set -4970 Aug 02 j 20:26 11°9512'35 -4975 Feb 21 j 09:24 max. Earth dist. -4970 Aug 13 j 20:50 13°538'46 6.36852 AU conjunction -4975 Feb 28 j 01:46 1°≈33'46 -1°-24'-54 conjunction -4970 Aug 15 j 13:25 14°501'18 1°22'21 minimum elong -4975 Feb 28 j 01:47 1°**≈**33'47 1°25'09 minimum elong -4970 Aug 15 j 13:23 14°501'16 max. Earth dist. -4975 Mar 01 j 23:49 2°**≈**00'42 6.06118 AU morning rise -4970 Aug 28 j 03:48 16°5548'44 morning rise -4975 Mar 13 i 18:06 4°≈45'15 -4970 Nov 04 i 14:00 $0^{\circ}\Omega$ -4975 Apr 29 i 17:44 15°≈ retrograde -4970 Dec 27 i 08:21 4°Ω04'23 retrograde -4975 Jul 21 j 18:46 24°≈28'23 -4969 Feb 19 i 21:27 30°RS min. Earth dist. -4975 Sep 18 j 03:58 19°≈32'27 4.10195 AU opposition -4969 Feb 26 i 01:53 29°512'58 2°05'47 -4975 Sep 19 j 06:23 19°≈23'26 -2°00'00 min. Earth dist. -4969 Feb 27 j 07:31 29°503'32 4.34491 AU opposition -4975 Oct 28 j 23:31 15°R≈ direct -4969 Apr 29 j 14:40 24°513'11 -4975 Nov 16 j 18:10 14°≈24'06 -4969 Jul 03 j 17:28 0°**Ω** direct -4975 Dec 05 j 16:09 15°≈ evening set -4969 Sep 02 j 23:31 12° Ω 16'12 -4974 Mar 08 j 04:22 max. Earth dist. -4969 Sep 13 j 21:21 14°Ω43'29 0°**₩** 6.30772 AU -4974 Mar 23 j 05:37 3°**)**€22'54 evening set -4969 Sep 15 j 11:56 15° Ω 05'16 1°23'30 conjunction -4974 Apr 05 j 23:32 6°**)** 31'08 -1°-9'-13 minimum elong -4969 Sep 15 j 11:58 15° Ω 05'17 1°23'42 conjunction -4974 Apr 05 j 23:36 6°**)**31'11 1°09'21 -4969 Sep 15 j 02:37 15°**Ω** minimum elong -4974 Apr 07 j 11:17 6°**)** €51'34 -4969 Sep 27 j 22:46 17° **Ω**53'44 max. Earth dist. 6.14909 AU morning rise -4974 Apr 19 j 18:10 9° **★** 39'29 -4969 Nov 26 j 19:13 0° Mp morning rise -4968 Jan 29 j 08:40 retrograde -4974 Aug 24 j 09:34 28°**米**28'21 retrograde 5° Mp 43'18 opposition -4974 Oct 22 j 18:39 23° **∺** 25'45 -1°-16'-41 opposition -4968 Mar 30 j 10:57 0° m 50'56 1°49'41 min. Earth dist. -4974 Oct 22 j 01:46 23° **€** 31'29 4.20110 AU min. Earth dist. -4968 Mar 31 j 12:07 0° Mp 42'57 4.26398 AU -4974 Dec 21 j 07:42 18°**米**23'31 -4968 Apr 06 j 04:01 30°RΩ direct -4973 Mar 26 j 05:04 $0^{\circ}\Upsilon$ direct -4968 May 31 j 06:20 25°**Ω**54'05 -4973 Apr 27 j 19:18 6°Y59'33 -4968 Jul 23 j 13:31 0° Mp evening set evening set -4968 Oct 03 j 11:55 14° Mp 11'29 -4973 May 11 j 12:31 10°**Υ**03'10 0°-30'-30 max. Earth dist. -4968 Oct 14 j 20:50 16° Mp 48'29 conjunction 6.21351 AU -4973 May 11 j 12:33 10°**Υ**03'11 0°30'29 minimum elong -4973 May 12 j 03:19 10°**Υ**11'26 -4968 Oct 16 j 00:41 17° m 04'33 0°59'38 max. Earth dist. 6.25251 AU conjunction -4973 May 25 i 04:07 13°**Υ**'05'48 morning rise minimum elong -4968 Oct 16 j 00:44 17° m 04'35 0°59'43 -4973 Aug 31 i 13:40 0°8 morning rise -4968 Oct 28 i 13:53 19° m 58'00 retrograde -4973 Sep 25 j 12:31 1°800'09 -4968 Dec 14 j 08:19 0∘**⊽** -4973 Oct 20 j 06:47 30°R℃ -4967 Mar 04 i 03:50 8°**£**36'59 retrograde -4973 Nov 23 j 23:27 26°**Υ**'01'21 0°-10'-48 -4967 May 04 j 07:03 3°**-**41′54 0°58'21 opposition opposition min. Earth dist. -4973 Nov 23 j 21:56 26°**Υ**01'52 4.29878 AU min. Earth dist. -4967 May 04 j 20:01 3°**2**37'45 4.16192 AU direct -4972 Jan 23 j 20:14 20°**Υ**57'40 -4967 Jun 06 j 01:02 30°R My -4972 Jan 24 j 09:59 20°**Υ**'57'42 asc. node direct -4967 Jul 03 j 22:16 28° mp 47'37 -4972 Apr 16 j 04:32 0°8 -4967 Jul 31 j 14:17 0∘Ω -4972 May 30 j 19:06 9°811'58 evening set -4967 Nov 05 j 03:57 17°**£**25'03 evening set -4972 Jun 13 j 06:09 12°**8**09'34 0°16'38 -4967 Nov 17 j 21:49 20°**2**24'33 0°15'50 conjunction conjunction -4972 Jun 13 j 06:07 12°**8**09'33 -4967 Nov 17 j 21:51 20°**£**24'34 0°15'46 minimum elong 0°16'48 minimum elong -4972 Jun 12 j 20:06 12°**8**04'03 -4967 Nov 17 j 19:49 20°**2**23'23 max. Earth dist. 6.33740 AU behind sun begin morning rise -4972 Jun 26 j 14:13 15°**8**05'36 behind sun end -4967 Nov 17 j 23:53 20°**2**25'46 -4972 Jun 26 j 04:00 15°**8** max. Earth dist. -4967 Nov 17 j 15:49 20°**£**21'02 6.11353 AU -4972 Sep 16 j 10:47 Π $^{\circ}$ 0 morning rise -4967 Nov 30 j 17:36 23°**£**25'17 retrograde -4972 Oct 25 j 14:53 2°**Ⅲ**22'26 -4967 Dec 29 j 18:32 0°M -4972 Dec 03 j 23:40 30°R**♂** desc. node -4966 Mar 21 j 22:25 12°M24'32 -4972 Dec 24 j 10:39 27°**8**27'22 0°55'52 -4966 Apr 09 j 10:45 12°M 56'40 opposition retrograde -4972 Dec 24 j 23:52 27°**8**23'02 4.36507 AU -4966 Jun 09 j 08:43 7°ML57'47 0°-15'-20 min. Earth dist. opposition

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 39

•	ical year style is used: Th		•	, , , , , , , , , , , , , , , , , , ,		, .	.50 37
min. Earth dist.	-4966 Jun 09 j 04:04	-	4.07181 AU	conjunction	-4960 Jun 17 j 21:02		
direct	-4966 Aug 07 j 15:21	3°ML04'50		minimum elong	-4960 Jun 17 j 21:00		0°23'15
	-4966 Nov 08 j 16:20	15° M ₊		max. Earth dist.	-4960 Jun 17 j 08:30	16° 8 35'22	6.34403 AU
evening set	-4966 Dec 09 j 13:18	22°M03'06		morning rise	-4960 Jul 01 j 03:48	19° 8 37'29	
					-4960 Aug 21 j 10:19	Π $^{\circ}0$	
conjunction	-4966 Dec 22 j 14:13	25°M08'52	0°-34'-46	retrograde	-4960 Oct 30 j 00:43	6° Ⅱ 51′30	
minimum elong	-4966 Dec 22 j 14:10	25°M08'51	0°35'00	opposition	-4960 Dec 28 j 21:04		1°04'15
max. Earth dist.	-4966 Dec 23 j 07:58		6.04148 AU	min. Earth dist.	-4960 Dec 29 j 12:17	1° Ⅱ 51'57	4.36920 AU
morning rise	-4965 Jan 04 j 18:27	28°M16'26			-4959 Jan 13 j 04:46		
. 1	-4965 Jan 12 j 02:56	0° ₹ 7		direct	-4959 Feb 28 j 23:10	26° ႘ 53'25 0° Ⅱ	
retrograde opposition	-4965 May 16 j 12:26 -4965 Jul 15 j 23:00	18° ҂ 24'33 13° ҂ 21'51	-1°-25'-46	evening set	-4959 Apr 16 j 19:42 -4959 Jul 06 j 20:20		
min. Earth dist.	-4965 Jul 15 j 02:23	13° × 21'31' 13° × 28'44	4.02573 AU	evening set	-4939 Jul 00 j 20.20	14 Щ3307	
direct	-4965 Sep 12 j 06:33	8° ∡ ⁷ 28'05	1.023 / 3 110	conjunction	-4959 Jul 19 j 20:45	17°∏44'30	1°02'31
evening set	-4964 Jan 14 j 14:50	27° × ⁷ 40'22		minimum elong	-4959 Jul 19 j 20:42		1°02'46
8	-4964 Jan 24 j 10:54	ರ°0		max. Earth dist.	-4959 Jul 18 j 13:18		6.38071 AU
	v			morning rise	-4959 Aug 01 j 17:50		
conjunction	-4964 Jan 27 j 23:18	0°る50'02	-1°-13'-23		-4959 Sep 16 j 20:02	0° ©	
minimum elong	-4964 Jan 27 j 23:14	0° ろ 50'00	1°13'40	retrograde	-4959 Nov 30 j 01:25	7° 5 38'07	
max. Earth dist.	-4964 Jan 29 j 14:32	1° る 13'18	6.02459 AU	opposition	-4958 Jan 29 j 09:53	2° © 45'57	1°50'25
morning rise	-4964 Feb 10 j 10:51	4° る 01'21		min. Earth dist.	-4958 Jan 30 j 11:19		4.38010 AU
retrograde	-4964 Jun 21 j 06:25	24° ろ 12'33			-4958 Feb 21 j 06:11		
min. Earth dist.	-4964 Aug 18 j 22:47	19° る 16'59	4.04153 AU	direct	-4958 Apr 02 j 00:01	27° Ⅱ 44'01	
opposition	-4964 Aug 20 j 02:29	19° ろ 07'34	-2°-4'-15		-4958 May 11 j 19:19	0°95	
direct	-4964 Oct 17 j 03:55 -4963 Feb 04 j 19:53	14°る11'10 0°≈		evening set max. Earth dist.	-4958 Aug 07 j 06:13 -4958 Aug 18 j 06:51	15°9540'55	6 26272 AII
evening set	-4963 Feb 19 j 13:57	0 ≈ 3°≈23'08		max. Earth dist.	-4938 Aug 18 J 00.31	18 90/20	6.36372 AU
evening set	-4903 FC0 19 J 13.37	3 ~ 23 08		conjunction	-4958 Aug 19 j 22:22	18° © 29'24	1°24'01
conjunction	-4963 Mar 05 j 04:37	6° ≈ 33'25	-1°-24'-31	minimum elong	-4958 Aug 19 j 22:20	18° © 29'23	1°24'16
minimum elong	-4963 Mar 05 j 04:38	6° ≈ 33'26	1°24'45	morning rise	-4958 Sep 01 j 11:46		
max. Earth dist.	-4963 Mar 07 j 00:42	6° ≈ 59'08	6.07025 AU	C	-4958 Oct 13 j 06:52	$0^{\circ}\Omega$	
morning rise	-4963 Mar 18 j 21:40	9° ≈ 44'43		retrograde	-4958 Dec 31 j 21:28	8° Ω 35′22	
	-4963 Apr 11 j 03:05	15° ≈		opposition	-4957 Mar 02 j 16:54	3° Ω 43′56	2°05'45
retrograde	-4963 Jul 26 j 11:38	29° ≈ 21'47		min. Earth dist.	-4957 Mar 03 j 22:18	3° Ω 34'35	4.33720 AU
opposition	-4963 Sep 23 j 23:26	24° ≈ 17′02			-4957 Apr 04 j 23:44	30° ₹ 5	
min. Earth dist.	-4963 Sep 22 j 21:32	24°≈25'53	4.11262 AU	direct	-4957 May 04 j 04:15		
direct	-4963 Nov 21 j 13:20	19°≈17'13			-4957 Jun 02 j 08:10	0°Ω	
	-4962 Feb 18 j 08:31	0°)(-4957 Aug 30 j 06:18		
evening set	-4962 Mar 28 j 05:43	8° ¥ 14'01		evening set max. Earth dist.	-4957 Sep 07 j 09:10 -4957 Sep 18 j 06:15		6.29748 AU
conjunction	-4962 Apr 10 j 23:59	11° ¥ 21'54	-1°-4'-55	max. Earth dist.	-4937 Sep 18 J 00.13	19 6613 32	0.29748 AU
minimum elong	-4962 Apr 11 j 00:03		1°05'02	conjunction	-4957 Sep 19 j 21:09	19° Ω 37'53	1°21'36
max. Earth dist.	-4962 Apr 12 j 09:12		6.16076 AU	minimum elong	-4957 Sep 19 j 21:11	19° Ω 37'54	1°21'47
morning rise	-4962 Apr 24 j 18:30	14° ¥ 29'43		morning rise	-4957 Oct 02 j 08:06	22° Ω 26'48	
-	-4962 Jul 14 j 12:18	$0^{\circ}\Upsilon$		-	-4957 Nov 06 j 08:45	0° m)	
retrograde	-4962 Aug 29 j 00:20	3° Ƴ 11'40		retrograde	-4956 Feb 03 j 03:42	10°Mp21'59	
	-4962 Oct 13 j 10:08	30° Ŗ ₩		opposition	-4956 Apr 04 j 06:05	5° ™ 29'20	1°44'25
opposition	-4962 Oct 27 j 07:58	28°) €09'34	-1°-8'-23	min. Earth dist.	-4956 Apr 05 j 06:20	5° m 21'37	4.25154 AU
min. Earth dist.	-4962 Oct 26 j 17:48	28°) 14'22	4.21248 AU	direct	-4956 Jun 04 j 22:21	0° Mp 32′49	
direct	-4962 Dec 26 j 01:53	23°) (07'04		evening set	-4956 Oct 07 j 23:48	18° m 52'25	
avanina ast	-4961 Mar 06 j 05:44	0° Υ 11° Υ 40'52		agniunation	4056 Oct 20: 12:11	210 m. 1/11/	0054120
evening set	-4961 May 02 j 15:27	11- 1 40-52		conjunction minimum elong	-4956 Oct 20 j 13:11	21° Mp 46'16 21° Mp 46'18	0°54'28 0°54'30
conjunction	-4961 May 16 j 08:11	14° Ƴ 43'52	0°-24'-5	max. Earth dist.	-4956 Oct 20 j 13:14 -4956 Oct 19 j 12:38	21° m/32'04	6.20008 AU
minimum elong	-4961 May 16 j 08:13	14° Υ 43'53	0°24'03	morning rise	-4956 Nov 02 j 02:57	24° m/40'35	0.20000 AC
max. Earth dist.	-4961 May 16 j 19:50	14° Υ 50'22	6.26291 AU		-4956 Nov 25 j 19:52	0° ت	
morning rise	-4961 May 29 j 23:05	17° Y '45'47	-	retrograde	-4955 Mar 09 j 03:21	13° ≏ 26'42	
Ç	-4961 Jul 30 j 04:39	0°8		opposition	-4955 May 09 j 06:33	8° ჲ 31'12	0°48'52
retrograde	-4961 Sep 29 j 21:49	5° 8 34'44		min. Earth dist.	-4955 May 09 j 17:27	8° ≏ 27'42	4.14833 AU
opposition	-4961 Nov 28 j 10:16	0° 8 36'27	0°-1'-2	direct	-4955 Jul 08 j 16:52	3° ჲ 37'14	
min. Earth dist.	-4961 Nov 28 j 10:00	0° 8 36'32	4.30753 AU	evening set	-4955 Nov 09 j 20:51	22° £ 17'37	
	-4961 Dec 02 j 23:53	30° ₹ Υ					
asc. node	-4961 Dec 04 j 10:11	29° Y 48'41		conjunction	-4955 Nov 22 j 15:29		0°08'46
direct	-4960 Jan 28 j 10:04	25° Ƴ 32'40		minimum elong	-4955 Nov 22 j 15:30		0°08'41
avanin+	-4960 Mar 24 j 15:14	0° と 13° と 45'25		behind sun begin behind sun end	-4955 Nov 22 j 08:29		
evening set	-4960 Jun 04 j 11:09 -4960 Jun 10 j 03:16			max. Earth dist.	-4955 Nov 22 j 22:30 -4955 Nov 22 j 11:25		6.10095 AU
	-1700 Juli 10 J 05.10	15 0		max. Latui uist.	-1755 INOV 22 J 11.23	23 == 1340	0.10093 AU

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -4955 in astronomical counting style is the year 4956 BCE in historical counting style. -4955 Dec 05 j 12:30 28°**♀**19'51 retrograde -4949 Oct 04 i 09:41 10°812'36 morning rise -4955 Dec 12 j 16:26 -4949 Oct 14 j 02:52 10°803'10 0° M asc. node -4954 Jan 29 j 21:41 10° ML14'52 -4949 Dec 02 j 22:17 desc. node opposition 5°**8**14'51 0°08'44 -4949 Dec 03 j 00:33 -4954 Mar 01 j 01:43 15° ML min. Earth dist. 5°**8**14'06 4.32257 AU -4954 Apr 14 j 14:12 17° ML57'59 -4948 Feb 02 j 03:37 0°**8**11'02 retrograde direct -4954 May 29 j 13:15 15°RM -4948 May 24 j 15:36 15°**8** -4954 Jun 14 j 11:20 12°ML58'32 0°-26'-6 -4948 Jun 09 j 02:53 18°**8**19'46 opposition evening set min. Earth dist. -4954 Jun 14 j 04:08 13°ML00'54 4.06127 AU direct -4954 Aug 12 j 14:15 8°M05'35 conjunction -4948 Jun 22 j 11:31 21°**8**15'32 0°29'19 -4948 Jun 22 j 11:28 21°**8**15'31 0°29'31 -4954 Oct 19 j 13:40 15°M minimum elong -4948 Jun 21 j 20:59 21°**8**07'33 evening set -4954 Dec 14 j 12:22 27°ML06'53 max. Earth dist. 6.35727 AU -4954 Dec 26 j 15:52 -4948 Jul 05 j 16:47 24°**8**09'37 0°**∡**¹ morning rise -4948 Aug 02 j 05:42 $\Pi^{\circ}0$ conjunction -4954 Dec 27 j 14:31 0°**х** 13′29 0°-41'-20 retrograde -4948 Nov 03 j 07:21 11°**Ⅱ**18'50 minimum elong -4954 Dec 27 j 14:28 0°**х** 13′27 0°41'35 opposition -4947 Jan 02 j 06:43 6°**Ⅲ**24'37 1°12'04 max. Earth dist. -4954 Dec 28 j 12:40 0°**х** 26′39 6.03397 AU min. Earth dist. -4947 Jan 02 j 22:42 6°**П**19'24 4.37993 AU morning rise -4953 Jan 09 j 19:44 3°**х** 21'49 direct -4947 Mar 05 j 10:52 1°**Ⅲ**21'14 retrograde -4953 May 21 j 18:55 23° ₹33'22 evening set -4947 Jul 11 j 06:15 19°**Ⅲ**17'44 min. Earth dist. -4953 Jul 20 j 04:37 18° ₹37'29 4.02220 AU max. Earth dist. -4947 Jul 22 j 20:18 21°**I**I50'07 6.38795 AU opposition -4953 Jul 21 j 02:02 18°**尽** 30'18 -1°-33'-39 direct -4953 Sep 17 j 07:41 13° ₹36'18 conjunction -4947 Jul 24 j 05:12 22°**Ⅲ**08'13 1°06'40 -4952 Jan 07 i 15:20 0°궁 minimum elong -4947 Jul 24 j 05:08 22°**Ⅱ**08'11 evening set -4952 Jan 19 j 19:17 2°る50'25 morning rise -4947 Aug 06 i 00:53 24°**I**57'06 -4947 Aug 29 i 16:33 0ಂತಾ conjunction -4952 Feb 02 i 04:35 6°る00'28 -1°-16'-50 retrograde -4947 Dec 04 j 09:12 11°559'27 -4952 Feb 02 j 04:32 6°**ප**00'26 1°17'07 -4946 Feb 02 j 19:11 7°907'30 minimum elong opposition 1°54'23 -4952 Feb 03 j 20:14 6°**る**23'57 6.02505 AU min. Earth dist. -4946 Feb 03 j 22:25 max. Earth dist. 6°958'47 4.38336 AU -4952 Feb 15 j 17:16 9°る12'11 -4946 Apr 06 j 11:20 2°905'50 morning rise direct -4952 Jun 26 j 07:30 29°**♂**21'39 evening set retrograde -4946 Aug 11 j 12:20 20°501'05 -4952 Aug 23 j 22:03 24°る26'24 4.04617 AU max. Earth dist. -4946 Aug 22 j 09:52 22°526'03 min. Earth dist. 6.36245 AU -4952 Aug 25 j 02:56 24°**궁**16'34 -2°-6'00 opposition -4952 Oct 22 j 03:45 19°る19'45 -4946 Aug 24 j 03:29 22°549'12 1°25'06 direct conjunction -4946 Aug 24 j 03:28 22°549'11 -4951 Jan 17 j 09:40 minimum elong 0°≈ 1°25'20 -4946 Sep 05 j 16:15 25°536'13 -4951 Feb 24 j 19:48 evening set 8°≈31'28 morning rise -4946 Sep 25 j 22:30 0°**Ω** -4951 Mar 10 j 11:20 11°≈41'44 -1°-23'-28 -4945 Jan 05 j 06:48 $12^{\circ} \Omega 57'07$ conjunction retrograde -4951 Mar 10 j 11:22 11°≈41'45 1°23'42 -4945 Mar 07 j 03:57 8° **Ω**05'33 2°04'55 minimum elong opposition -4945 Mar 08 j 09:31 max. Earth dist. -4951 Mar 12 j 07:13 12°≈07'16 6.07871 AU min. Earth dist. 7°**Ω**56'09 4.33145 AU morning rise -4951 Mar 24 j 04:49 14°≈52'51 direct -4945 May 08 j 13:30 3°**Ω**06′26 -4951 Mar 24 j 17:14 15°≈ -4945 Aug 14 j 04:02 15°**Ω** -4951 Jun 07 j 09:49 0°**)**€ evening set -4945 Sep 11 j 14:24 21°**Ω**11'02 6.28769 AU -4951 Jul 31 j 10:12 4°**)** 23'53 max. Earth dist. -4945 Sep 22 j 12:58 23°**Ω**39'28 retrograde -4951 Sep 23 j 20:48 30°R≈ -4951 Sep 28 j 19:56 29°≈19'25 -1°-51'-23 -4945 Sep 24 j 02:21 24° **Ω**00'41 1°19'16 opposition conjunction min. Earth dist. -4951 Sep 27 j 19:44 29°≈27'41 4.12398 AU -4945 Sep 24 j 02:24 24° **Ω**00'42 1°19'27 minimum elong -4951 Nov 26 i 13:44 24°≈19'15 $-4945 \text{ Oct } 06 \text{ i } 13:12 \quad 26^{\circ} \Omega 50'00$ direct morning rise -4950 Jan 27 j 10:46 -4945 Oct 20 j 18:11 -4950 Apr 02 j 09:11 13°**)** 13'37 evening set retrograde -4944 Feb 07 i 18:30 14° m 50'55 opposition -4944 Apr 08 i 21:12 9° m 57'59 -4950 Apr 16 j 03:38 16° **)** €21'01 -1°00'-3 min. Earth dist. -4944 Apr 09 i 21:15 9° m 50'19 4.23812 AU conjunction -4950 Apr 16 j 03:42 16° ¥21'03 1°00'08 direct -4944 Jun 09 j 10:22 5° m 01'48 minimum elong evening set max. Earth dist. -4950 Apr 17 j 11:38 16°**)** 39'11 -4944 Oct 12 j 08:01 23° m 24'12 6.17448 AU -4950 Apr 29 j 21:58 19° **∺**28'09 morning rise $0^{\circ}\Upsilon$ -4950 Jun 19 j 01:16 conjunction -4944 Oct 24 j 21:48 26° Mp 18'55 0°49'08 retrograde -4950 Sep 02 j 15:06 8°**Υ**02'10 minimum elong -4944 Oct 24 j 21:51 26° m 18'57 0°49'10 -4950 Oct 31 j 23:41 opposition 3°Υ00'36 0°-59'-25 max. Earth dist. -4944 Oct 23 j 21:15 26° m 04'40 6.18416 AU min. Earth dist. -4950 Oct 31 j 09:54 3°**Υ**05'15 4.22756 AU morning rise -4944 Nov 06 j 12:32 29° m 14'18 -4950 Nov 24 j 22:31 30°R € -4944 Nov 09 j 19:57 0∘**⊽** -4950 Dec 30 j 20:58 27° ¥ 57'53 -4943 Mar 13 j 23:51 18°**♀**08'48 direct retrograde $0^{\circ}\Upsilon$ -4943 May 14 j 02:43 13°**£**12'46 -4949 Feb 05 j 07:28 opposition 0°39'25 -4949 May 07 j 13:51 16°**Υ**28'02 -4943 May 14 j 11:37 13°**೨**09'53 evening set min. Earth dist. 4.13098 AU direct -4943 Jul 13 j 08:08 8°**£**18'57 -4949 May 21 j 05:45 19° **Y** 30'03 0° -17'-25 conjunction evening set -4943 Nov 14 j 11:27 27°**₽**04'03 minimum elong $-4949 \text{ May } 21 \text{ j } 05:47 \quad 19^{\circ} \Upsilon 30'04 \quad 0^{\circ} 17'21$ -4943 Nov 26 j 21:38 0°M max. Earth dist. -4949 May 21 j 14:03 19°**Υ**34'40 6.27858 AU -4949 Jun 03 j 19:44 22°**Υ**30'55 -4943 Nov 27 j 07:18 0°M05'42 0°01'51 morning rise conjunction -4949 Jul 09 j 03:56 -4943 Nov 27 j 07:18 0°ML05'41 0°01'44 minimum elong

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -4943 in astronomical counting style is the year 4944 BCE in historical counting style. behind sun begin -4943 Nov 26 j 23:12 0°ML00'56 behind sun end -4937 May 26 j 08:37 24° Υ 16'59 -4943 Nov 27 j 15:23 0°M10'27 -4937 May 26 j 08:33 24° Υ 16'57 6.29357 AU behind sun end max Earth dist -4943 Nov 27 j 07:13 -4937 Jun 08 j 15:02 27°**Υ**13'15 max. Earth dist. 0°M.05'39 6.08394 AU morning rise -4937 Jun 21 j 09:08 -4943 Dec 10 j 05:21 3°ML08'45 morning rise _0°8 -4937 Aug 23 j 02:36 11°**8**28'52 desc. node -4943 Dec 11 j 08:23 3°M24'36 asc. node -4937 Oct 08 j 19:07 -4942 Feb 03 j 00:42 15°M retrograde 14°**8**48'18 retrograde -4942 Apr 19 j 18:38 22°M55'16 opposition -4937 Dec 07 j 09:58 9°**8**51'06 0°18'31 opposition -4942 Jun 19 j 12:06 17°**M** 55'20 0°-36'-26 min. Earth dist. -4937 Dec 07 j 13:27 9°**8**49'57 4.33525 AU min. Earth dist. -4942 Jun 19 j 03:40 17°M 58'07 4.04629 AU direct -4936 Feb 06 j 17:59 4°**8**47'17 -4942 Jul 13 j 08:52 15°RM -4936 May 06 j 20:09 15°**8** direct -4942 Aug 17 j 11:05 13°M02'22 evening set -4936 Jun 13 j 18:19 22°**8**53'02 -4942 Sep 21 j 02:33 -4936 Jun 26 j 06:43 25°**8**37'33 15°M max. Earth dist. 6.36651 AU -4942 Dec 10 j 08:38 0°**∡**¹ evening set -4942 Dec 19 j 11:12 2°**х**¹08'38 conjunction -4936 Jun 27 j 01:27 25°**8**47'50 0°35'29 minimum elong -4936 Jun 27 j 01:24 25°**8**47'49 0°35'41 conjunction -4941 Jan 01 j 14:22 5°**∡**16'13 0°-47'-28 morning rise -4936 Jul 10 j 05:26 28°**8**40'59 minimum elong -4941 Jan 01 j 14:19 5°**∡**16'11 0°47'43 -4936 Jul 16 j 06:56 $\Pi^{\circ}0$ max. Earth dist. -4941 Jan 02 j 14:25 5°**х** 30′33 6.02228 AU retrograde -4936 Nov 07 j 17:41 15°**Ⅲ**47'12 morning rise -4941 Jan 14 j 21:01 8°**х** 25′40 opposition -4935 Jan 06 j 17:21 10°**Д**53'26 1°19'39 retrograde -4941 May 26 j 23:11 28° ₹ 42'00 min. Earth dist. -4935 Jan 07 j 12:17 10°**Ⅲ**47'17 4.38518 AU min. Earth dist. -4941 Jul 25 j 04:37 23° ₹ 46'36 4.01538 AU direct -4935 Mar 10 j 01:07 5°**Ⅱ**50′13 opposition -4941 Jul 26 i 04:44 23° ₹38'30 -1°-40'-43 evening set -4935 Jul 15 i 17:16 23°**I**I45'32 direct -4941 Sep 22 i 06:40 18° ₹ 44'12 max. Earth dist. -4935 Jul 27 j 04:19 26°**Ⅲ**16'21 6.38858 AU -4941 Dec 20 i 14:46 0°₹ evening set -4940 Jan 25 j 00:21 8°**ප**01'18 conjunction -4935 Jul 28 j 15:03 26° **I**I 35'28 1°10'36 -4935 Jul 28 j 15:00 26°**Ⅲ**35'26 1°10'52 minimum elong -4940 Feb 07 j 10:50 11°る11'54 -1°-19'-37 -4935 Aug 10 ј 09:29 $\,$ 29°**Д**23'50 conjunction morning rise -4940 Feb 07 j 10:48 11°る11'53 1°19'53 -4935 Aug 13 i 03:43 0°5 minimum elong -4940 Feb 09 j 05:19 11°중37'04 6.02364 AU -4935 Dec 08 j 18:57 16°527'10 max. Earth dist. retrograde -4940 Feb 21 j 00:22 14°る24'02 -4934 Feb 07 j 07:21 11°535'23 morning rise opposition 1°57'58 -4940 May 07 j 10:31 -4934 Feb 08 j 10:52 11°526'35 0°≈ min. Earth dist. 4.37960 AU -4940 Jul 01 j 11:21 4°≈32'05 direct -4934 Apr 10 j 22:21 retrograde 6°≌34'03 -4940 Aug 26 j 02:44 30°₹**⋜** -4934 Aug 15 j 21:35 24°530'03 evening set -4940 Aug 28 j 23:28 29°중36'37 4.05026 AU max. Earth dist. -4934 Aug 26 j 18:31 26°55'02 6.35448 AU min. Earth dist. -4940 Aug 30 j 04:06 29°る26'50 opposition -2°-6'-40 -4940 Oct 27 j 06:44 24°₹29'31 -4934 Aug 28 j 11:57 27°518'09 1°25'48 direct conjunction -4940 Dec 26 j 04:53 0°≈ -4934 Aug 28 j 11:57 27°518'09 minimum elong 1°26'02 evening set -4939 Mar 02 j 02:37 13°≈40'43 -4934 Sep 09 j 14:37 0°**Ω** -4939 Mar 07 j 19:42 15°≈ morning rise -4934 Sep 10 j 00:05 0°Ω05'15 -4934 Nov 29 j 22:51 15°**Ω** conjunction -4939 Mar 15 j 18:54 16°≈50'54 -1°-21'-44 retrograde -4933 Jan 09 j 22:54 17°**Ω**30'47 -4939 Mar 15 j 18:57 16°≈50'56 1°21'57 -4933 Feb 20 j 12:34 15°RΩ minimum elong -4939 Mar 17 j 15:42 17°≈16'53 -4933 Mar 11 j 20:17 12° Ω 39'13 2°03'27 max. Earth dist. 6.08786 AU opposition -4939 Mar 29 j 12:52 20°≈01'47 min. Earth dist. -4933 Mar 13 j 02:33 12°Ω29'36 4.31968 AU morning rise -4939 May 14 j 13:03 direct -4933 May 13 j 04:35 7°**Ω**40'33 retrograde -4939 Aug 05 i 06:55 9°**)** 25'47 -4933 Jul 25 i 23:34 15°Ω opposition -4939 Oct 03 i 16:19 4°**)**(21'33 -1°-45'-42 evening set $-4933 \text{ Sep } 16 \text{ j } 00:55 \quad 25^{\circ} \Omega 47'33$ min. Earth dist. -4939 Oct 02 j 15:55 4°**)** €29'52 4.13696 AU max. Earth dist. -4933 Sep 26 j 23:16 $28^{\circ}\Omega$ 16'25 6.27309 AU -4939 Nov 11 i 20:18 30°R≈ conjunction -4939 Dec 01 i 12:39 29°≈20'54 -4933 Sep 28 j 12:48 $28^{\circ}\Omega$ 37'47 $1^{\circ}16'23$ direct -4939 Dec 21 j 10:36 -4933 Sep 28 j 12:50 $28^{\circ}\Omega$ 37'49 1°16'32 0°**₩** minimum elong -4938 Apr 07 j 12:41 18°**光** 11'59 -4933 Oct 04 j 13:15 evening set 0° m morning rise -4933 Oct 11 j 00:01 1° m 27'50 conjunction -4938 Apr 21 j 07:01 21° ¥ 18'41 0°-54'-43 retrograde -4932 Feb 12 j 15:04 19° m 36'15 minimum elong -4938 Apr 21 j 07:05 21° **€** 18'43 0°54'48 opposition -4932 Apr 13 j 18:50 14° mp 42'58 1°32'03 max. Earth dist. -4938 Apr 22 j 11:30 21° **★** 34'49 6.18997 AU min. Earth dist. -4932 Apr 14 j 16:39 14° m 36'01 4.22164 AU morning rise -4938 May 05 j 01:09 24° **★**25'02 direct -4932 Jun 14 j 03:12 9° m 47'12 -4938 May 30 j 13:08 $0^{\circ}\Upsilon$ -4932 Oct 16 j 22:47 28° m 13'18 evening set -4938 Sep 07 j 06:43 12°**Υ**50'28 -4932 Oct 24 j 14:49 retrograde 0∘**⊽** -4938 Nov 05 j 15:09 7°**Υ**49'19 0°-50'-4 opposition 7°**Y**53′06 -4932 Oct 29 j 13:22 min. Earth dist. -4938 Nov 05 j 03:58 4.24350 AU conjunction 1°**ഫ**09'03 0°43'10 direct -4937 Jan 04 j 18:01 2°**Y**46′18 minimum elong -4932 Oct 29 j 13:26 1°**2**09'05 0°43'11 evening set -4937 May 12 j 10:59 21°Υ 12'22 max. Earth dist. -4932 Oct 28 j 16:55 0°**£**57′08 6.16755 AU morning rise -4932 Nov 11 j 04:52 4°**£**05'32 conjunction -4937 May 26 j 02:15 24° **Y** 13'28 0° -10'-38 retrograde -4931 Mar 19 j 04:49 23°**△**08'29 -4937 May 26 j 02:15 24°**Υ**13'28 0°10'33 -4931 May 19 j 05:52 18°**♀**12'02 minimum elong opposition 0°29'02

min. Earth dist.

-4931 May 19 j 13:02 18°**2**09'43 4.11559 AU

-4937 May 25 j 19:54 24°**Υ**09'58

behind sun begin

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -4931 in astronomical counting style is the year 4932 BCE in historical counting style. direct -4931 Jul 18 j 07:29 13°**△**18'31 conjunction -4925 May 30 j 18:31 28°**Y**47'31 -4931 Oct 19 j 22:22 25° **2**12'11 minimum elong -4925 May 30 j 18:32 28°**Υ**47'31 desc. node 0°03'56 -4931 Nov 10 j 06:44 -4925 May 30 j 10:22 28°**Υ**43'01 0°M behind sun begin -4931 Nov 19 j 08:40 -4925 May 31 j 02:41 28° Υ 52'01 2°M07'22 behind sun end evening set 28°**Y**47′52 -4925 May 30 j 19:11 max. Earth dist. 6.30630 AU conjunction -4931 Dec 02 j 05:26 -4925 Jun 05 j 05:31 5°**M**₁0'00 0°-5'-36 0°B -4931 Dec 02 j 05:24 -4925 Jun 13 j 06:26 minimum elong 5°**M**₁0'00 0°05'46 morning rise 1°**8**46'22 -4931 Dec 01 j 21:39 behind sun begin 5°M05'25 asc. node -4925 Jul 03 j 06:41 6°**8**05'24 behind sun end -4931 Dec 02 j 13:10 5°M14'34 -4925 Aug 20 j 16:06 15°8 max. Earth dist. -4931 Dec 02 j 08:03 5°**M**11'32 6.07137 AU retrograde -4925 Oct 13 j 03:27 19°**8**16'03 morning rise -4931 Dec 15 j 04:53 8°M14'11 -4925 Dec 06 j 15:16 15°R℃ -4925 Dec 11 j 18:39 14°**8**19'21 -4930 Jan 13 j 20:41 15°M opposition 0°27'52 -4925 Dec 12 j 01:32 14°817'05 retrograde -4930 Apr 25 j 01:15 28°M07'00 min. Earth dist. 4.34422 AU opposition -4930 Jun 24 j 18:05 23°ML06'31 0°-47'-3 direct -4924 Feb 11 j 07:16 9°**8**15'28 min. Earth dist. -4930 Jun 24 j 05:51 23°M10'33 4.03818 AU -4924 Apr 16 j 07:16 15°8 direct -4930 Aug 22 j 12:12 18°M13'32 evening set -4924 Jun 18 j 06:37 27°**8**19'35 -4930 Nov 22 j 09:50 0°**∡**¹ -4924 Jun 30 j 11:41 $\Pi^{\circ}0$ evening set -4930 Dec 24 j 14:41 7°**∡**¹22'00 conjunction -4924 Jul 01 j 12:41 0°**Ⅱ**13'44 0°41'15 conjunction -4929 Jan 06 j 18:58 10° ₹30'11 0°-53'-30 minimum elong -4924 Jul 01 j 12:38 0°**Ⅱ**13'42 0°41'29 minimum elong -4929 Jan 06 j 18:54 10° **₹** 30'09 0°53'46 max. Earth dist. -4924 Jun 30 j 15:58 0°**Ⅱ**02'21 6.37095 AU max. Earth dist. -4929 Jan 07 j 23:30 10° ₹ 47'11 6.01941 AU morning rise -4924 Jul 14 i 15:12 3°**Ⅱ**06′08 morning rise -4929 Jan 20 i 02:33 13°**₹** 40'09 retrograde -4924 Nov 12 j 00:19 20°**Ⅱ**11'09 -4923 Jan 11 j 02:25 15°**Ц**17'45 1°26'37 -4929 Apr 10 j 20:37 opposition 0°₹ retrograde -4929 Jun 01 j 05:59 3°る57'13 min. Earth dist. -4923 Jan 11 j 22:24 15°**Ⅱ**11'17 4.38513 AU -4929 Jul 23 j 01:52 30°R ✓ -4923 Mar 14 j 10:53 10°**Ⅲ**14'45 direct -4929 Jul 30 j 08:30 29° ₹ 01'41 4.01833 AU evening set -4923 Jul 20 j 03:06 28°**Д**10'33 min. Earth dist. opposition -4929 Jul 31 j 09:27 28°**х** 53'17 -1°-47'-9 -4923 Jul 28 j 10:29 000 -4929 Sep 27 j 11:28 23°**∡** 58'37 max. Earth dist. -4923 Jul 31 j 10:16 0°939'35 6.38385 AU direct -4929 Nov 28 j 23:56 0°る -4923 Aug 01 j 23:34 -4928 Jan 30 j 06:50 13°**⋜**14'58 conjunction 1°900'09 1°14'03 evening set -4923 Aug 01 j 23:31 minimum elong 1°900'07 1°14'18 -4928 Feb 12 j 18:12 16°♂25'33 -1°-21'-50 -4923 Aug 14 j 17:03 conjunction 3°9548'16 morning rise -4923 Dec 13 j 07:25 20°554'25 -4928 Feb 12 j 18:10 16° **정**25'32 1°22'06 minimum elong retrograde -4928 Feb 14 j 14:54 16° **정**51'56 6.03192 AU -4922 Feb 11 j 19:55 16°502'48 2°00'51 max. Earth dist. opposition -4928 Feb 26 j 08:30 19°る37'35 -4922 Feb 13 j 01:14 15°553'26 4.37074 AU morning rise min. Earth dist. -4928 Apr 13 j 11:53 -4922 Apr 15 j 11:39 11°501'48 0°**≈** direct retrograde -4928 Jul 06 j 11:46 9°**≈**39'50 evening set -4922 Aug 20 j 07:15 29°500'01 min. Earth dist. -4928 Sep 02 j 22:15 4°≈44'33 4.06314 AU -4922 Aug 24 j 19:10 $0^{\circ}\Omega$ -4928 Sep 04 j 03:30 4°≈34'34 -2°-6'-21 max. Earth dist. -4922 Aug 31 j 03:40 1°**Ω**25'10 6.34210 AU opposition -4928 Oct 17 j 07:26 30°R ₹ -4928 Nov 01 j 07:19 29°**♂**36'45 -4922 Sep 01 j 21:08 1°Ω48'22 1°25'57 direct conjunction -4928 Nov 16 j 10:03 -4922 Sep 01 j 21:08 1°**Ω**48′22 minimum elong 1°26'11 -4927 Feb 18 j 19:42 15°≈ -4922 Sep 14 j 08:49 4°**Ω**35'47 morning rise -4927 Mar 07 j 07:13 18°≈44'26 -4922 Nov 03 j 22:45 15°**Ω** evening set -4921 Jan 14 j 14:45 $22^{\circ}\Omega$ 07'19 retrograde -4927 Mar 20 j 23:52 21°≈54'04 -1°-19'-27 conjunction opposition -4921 Mar 16 j 13:59 $17^{\circ}\Omega$ 15'35 $2^{\circ}01'10$ -4927 Mar 20 j 23:55 21°≈54'06 1°19'39 minimum elong min. Earth dist. -4921 Mar 17 j 18:29 $17^{\circ}\Omega$ 06'32 4.30482 AU max. Earth dist. -4927 Mar 22 j 17:56 22°≈18'24 6.10392 AU -4921 Apr 04 i 01:24 15°RΩ -4927 Apr 03 i 18:10 25°≈04'19 direct -4921 May 17 j 18:27 12° Ω 17'22 morning rise -4927 Apr 25 j 16:59 0°**∀** -4921 Jun 29 j 22:57 15°**Ω** -4927 Aug 10 j 00:03 14°**)** 19'12 -4921 Sep 18 j 12:11 retrograde 0° m -4927 Oct 07 j 11:00 9°**¥**22'49 4.15430 AU -4921 Sep 20 j 13:00 min. Earth dist. evening set 0° m 27'36 opposition -4927 Oct 08 j 09:16 9°**)**(15'13 -1°-39'-28 max. Earth dist. -4921 Oct 01 j 14:20 2° Mp 58'43 6.25710 AU 4°**)**€ 14'05 direct -4927 Dec 06 j 10:24 evening set -4926 Apr 12 j 11:45 23°**米**00'37 conjunction -4921 Oct 03 j 01:01 3° m 18'32 1°12'56 minimum elong -4921 Oct 03 j 01:04 3° Mp 18'34 1°13'04 -4926 Apr 26 j 06:06 26° ¥ 06'33 0°-49'-13 -4921 Oct 15 j 12:32 conjunction morning rise 6° m 09'25 -4926 Apr 26 j 06:09 26°**₭**06'35 -4920 Feb 17 j 15:49 24° m 25'39 minimum elong 0°49'16 retrograde -4926 Apr 27 j 08:37 26° **★**21'31 -4920 Apr 18 j 18:45 19° M 32'02 max. Earth dist. 6.20732 AU opposition 1°24'37 -4926 May 09 j 23:36 29°**米** 11'54 -4920 Apr 19 j 15:17 19° Mp 25'28 morning rise min. Earth dist. 4.20551 AU -4926 May 13 j 13:48 $0^{\circ}\Upsilon$ direct -4920 Jun 19 j 00:01 14° Mp 36'41 retrograde -4926 Sep 11 j 17:10 17°**Υ**28'44 -4920 Oct 08 j 02:25 0∘**⊽** opposition -4926 Nov 10 j 02:31 12°**Υ**28'07 0°-40'-46 evening set -4920 Oct 21 j 15:16 3°**₽**06'00 min. Earth dist. -4926 Nov 09 j 17:14 12°**Υ**31'15 4.25918 AU -4925 Jan 09 j 09:01 7°**Y**24'54 -4920 Nov 03 j 06:32 6°**₽**02'41 direct conjunction 0°36'48 -4925 May 17 j 04:19 25°**Υ**47'21 -4920 Nov 03 j 06:34 6°**£**02'43 0°36'48 evening set minimum elong

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, Attention, astronomical year style is used: The year -4920 in astronomical counting style is the year 4921 BCE in historical counting style. -4920 Nov 02 i 12:45 5°**♀**52'19 6.15282 AU retrograde -4914 Sep 16 j 03:43 22° Υ 06'51 max. Earth dist. opposition -4920 Nov 15 j 23:07 -4914 Nov 14 j 13:56 17°**Υ**06'47 0°-31'-15 morning rise 9°**₽**00'16 -4919 Mar 24 j 08:42 28° **2**10'40 min. Earth dist. -4914 Nov 14 j 07:09 17°**Υ**09'04 4.27201 AU retrograde -4919 May 24 j 10:01 23°**2**13'38 0°18'18 -4913 Jan 14 j 00:46 12°**Υ**03'22 direct opposition -4913 May 12 j 21:24 28°**Υ**25'29 -4919 May 24 j 13:11 23°**♀**12'37 min. Earth dist. 4.10352 AU asc. node -4919 Jul 23 j 06:00 18° **2**20'21 direct -4913 May 20 j 03:05 0°8 -4913 May 21 j 21:27 desc. node -4919 Aug 28 j 08:49 20°**£**24'32 evening set 0°**8**23'12 -4919 Oct 23 j 15:09 0°M -4919 Nov 24 j 06:52 -4913 Jun 04 j 10:54 evening set 7°**IL**11'41 conjunction 3°**8**22'37 0°02'44 -4913 Jun 04 j 10:53 minimum elong 3°**8**22'37 0°02'51 conjunction -4919 Dec 07 j 04:39 10°M 15'08 0°-12'-56 behind sun begin -4913 Jun 04 j 02:40 3°**8**18'05 -4919 Dec 07 j 04:38 10°ML15'07 -4913 Jun 04 j 19:07 3°**8**27'08 minimum elong 0°13'06 behind sun end -4919 Dec 06 j 23:42 10°Ml2'12 -4913 Jun 04 j 09:13 behind sun begin max. Earth dist. 3°**8**21'44 6.31656 AU behind sun end -4919 Dec 07 j 09:34 10°ML18'01 morning rise -4913 Jun 17 j 21:32 6°**8**20'34 max. Earth dist. -4919 Dec 07 j 12:04 10°M 19'31 6.06297 AU -4913 Jul 29 j 13:29 15°8 morning rise -4919 Dec 20 j 05:08 13°M20'09 retrograde -4913 Oct 17 j 11:33 23°**8**45'56 -4919 Dec 27 j 07:32 15°M opposition -4913 Dec 16 j 04:17 18°**8**49'48 -4918 Mar 14 j 10:48 0°**∡**7 min. Earth dist. -4913 Dec 16 j 12:59 18°**8**46'56 4.35119 AU retrograde -4918 Apr 30 j 08:42 3°**х¹**17′22 -4912 Jan 18 j 09:20 15°R8 -4918 Jun 16 j 15:09 30°RML direct -4912 Feb 15 j 19:58 13°**8**46'01 opposition -4918 Jun 29 j 23:24 28°ML16'18 0°-57'-16 -4912 Mar 15 j 15:06 15°8 min. Earth dist. -4918 Jun 29 i 09:35 28°M 20'53 4.03421 AU -4912 Jun 14 i 10:16 $\Pi^{\circ}0$ direct -4918 Aug 27 j 15:16 23°M23'13 evening set -4912 Jun 22 j 19:45 1°**Ⅱ**49'00 -4918 Nov 01 i 15:47 max. Earth dist. -4912 Jul 04 j 23:25 4°**Ⅱ**28'45 6.37396 AU 0°**√** evening set -4918 Dec 29 j 17:43 12° ₹32'38 -4912 Jul 06 j 00:22 4°**Ⅱ**42'27 0°46'51 conjunction -4917 Jan 11 j 22:59 15° ₹ 41'12 0°-59'-6 -4912 Jul 06 j 00:18 4°**Ⅱ**42'25 0°47'05 conjunction minimum elong -4917 Jan 11 j 22:55 15° ₹ 41'10 -4912 Jul 19 j 01:44 7°**Ⅲ**34'14 minimum elong 0°59'22 morning rise -4917 Jan 13 j 06:45 16°**✗** 00'06 -4912 Nov 16 j 10:06 24°**Д**38'36 max. Earth dist. 6.01996 AU retrograde -4917 Jan 25 j 07:37 18° ₹ 51'34 -4911 Jan 15 j 13:00 19°**II**45'33 1°33'13 morning rise opposition -4917 Mar 16 j 21:17 -4911 Jan 16 j 11:14 19°**II** 38'22 4.38431 AU 0°ನ min. Earth dist. -4917 Jun 06 j 10:04 -4911 Mar 18 j 23:57 14°**II**42'45 retrograde 9°**る**07'47 direct min. Earth dist. -4917 Aug 04 j 09:35 4°る12'32 4.02369 AU -4911 Jul 12 j 08:04 0ಂತಾ -4917 Aug 05 j 12:06 4°る03'35 -1°-52'-40 -4911 Jul 24 j 13:40 2°939'03 opposition evening set -4917 Sep 10 j 03:10 30°R ✓ -4911 Aug 04 j 19:54 max. Earth dist. 5°907'47 6.37922 AU -4917 Oct 02 j 12:46 29° ₹ 08'36 direct -4917 Oct 25 j 00:10 0°る -4911 Aug 06 j 09:11 conjunction 5°\$28'23 1°17'08 evening set -4916 Feb 04 j 11:44 18° ₹23'46 minimum elong -4911 Aug 06 j 09:08 5°528'21 1°17'23 morning rise -4911 Aug 19 j 01:27 8°9516'14 conjunction -4916 Feb 17 j 23:49 21°♂34'15 -1°-23'-26 retrograde -4911 Dec 17 j 18:36 25°525'09 minimum elong -4916 Feb 17 j 23:47 21° **궁**34'14 1°23'42 opposition -4910 Feb 16 j 09:41 20°533'39 2°03'06 max. Earth dist. -4916 Feb 19 j 19:57 22°**る**00'13 min. Earth dist. -4910 Feb 17 j 14:21 20°524'30 4.36293 AU -4916 Mar 02 j 14:53 24°₹46'08 direct -4910 Apr 20 j 00:00 15°533'05 morning rise -4916 Mar 25 j 12:35 -4910 Aug 08 j 12:36 0° Ω -4916 Jul 11 j 10:02 14°≈42'38 -4910 Aug 24 j 17:29 3°**£**32′50 retrograde evening set -4916 Sep 07 i 20:27 min. Earth dist. 9°≈47'08 4.07550 AU max. Earth dist. -4910 Sep 04 i 13:23 5°Ω58'10 6.33177 AU opposition -4916 Sep 09 i 00:55 9°**≈**37'24 -2°-5'-10 -4910 Sep 06 i 06:39 direct -4916 Nov 06 i 07:33 4°≈39'06 conjunction 6°Ω21'19 1°25'38 -4910 Sep 06 i 06:39 -4915 Jan 31 i 13:11 15°≈ minimum elong 6°**Ω**21'19 1°25'51 -4915 Mar 12 j 10:07 23°≈43'53 morning rise -4910 Sep 18 j 18:05 9°Ω09'01 evening set -4910 Oct 15 i 17:49 15° Ω -4915 Mar 26 j 03:25 26°≈53'08 -1°-16'-40 retrograde -4909 Jan 19 j 09:14 $26^{\circ} \Omega 45'55$ conjunction -4915 Mar 26 j 03:29 26°≈53'10 -4909 Mar 21 j 08:40 21° **Ω**54'03 1°58'09 minimum elong 1°16'50 opposition max. Earth dist. -4915 Mar 27 j 21:04 27°≈17'07 6.11844 AU min. Earth dist. -4909 Mar 22 j 12:57 $21^{\circ}\Omega$ 45'03 4.29265 AU morning rise -4915 Apr 08 j 21:44 0°**)** 02'46 direct -4909 May 22 j 11:45 $16^{\circ}\Omega 56'14$ -4915 Apr 08 j 16:53 0°**)**€ -4909 Sep 01 j 20:06 0° m retrograde -4915 Aug 14 j 16:27 19°**米**09'24 evening set -4909 Sep 25 j 00:51 5° m 08'27 -4915 Oct 12 j 04:23 14° ¥ 12'52 4.16945 AU max. Earth dist. -4909 Oct 06 j 04:42 7° Mp41'26 6.24431 AU min. Earth dist. -4915 Oct 13 j 00:53 14°**米**05'53 -1°-32'-40 opposition -4915 Dec 11 j 05:23 9°**₩**04'27 -4909 Oct 07 j 13:05 7° m 59'59 1°09'04 direct conjunction -4914 Apr 17 j 10:19 27° ¥ 47'33 -4909 Oct 07 j 13:08 1°09'11 evening set minimum elong 8° Mp 00'01 -4914 Apr 27 j 06:29 $0^{\circ}\Upsilon$ morning rise -4909 Oct 20 j 01:00 10° m 51'34 retrograde -4908 Feb 22 j 13:16 29° m 14'21 conjunction -4914 May 01 j 04:17 0°**Υ**52'45 0°-43'-26 opposition -4908 Apr 23 j 17:48 24° Mp 20'17 1°16'41 minimum elong -4914 May 01 j 04:21 0°**Υ**52'48 0°43'28 min. Earth dist. -4908 Apr 24 j 11:02 24° Mp 14'47 4.19303 AU max. Earth dist. -4914 May 02 j 01:59 1°**Y**04'57 6.22194 AU -4908 Jun 23 j 18:02 19° M 25'18 direct -4914 May 14 j 21:29 3°Y57'20 -4908 Sep 20 j 11:35 morning rise

Planetary Phenomena of Jupiter from -5400 through -4900 (UT), Astrodienst AG 7-Dez-2017 14:33, page 44

	omena of Jupiter Tr			//		/ 1	ige 44
	nical year style is used: TI	-	in astronomical cou				
evening set	-4908 Oct 26 j 06:55	7° £ 56'34		conjunction	-4902 May 06 j 01:09	5° Y 35'19	
				minimum elong	-4902 May 06 j 01:12	5° Y 35′21	0°37'27
conjunction	-4908 Nov 07 j 22:50	10° £ 54'02	0°30'18	max. Earth dist.	-4902 May 06 j 20:17	5° Ƴ 46′04	6.23336 AU
minimum elong	-4908 Nov 07 j 22:52	10° £ 54′03	0°30'15	morning rise	-4902 May 19 j 17:40	8° Y 39'10	
max. Earth dist.	-4908 Nov 07 j 08:52	10° ≙ 45'51	6.14184 AU	retrograde	-4902 Sep 20 j 15:04	26° Ƴ 42'39	
morning rise	-4908 Nov 20 j 16:18	13° ≏ 52'29		opposition	-4902 Nov 19 j 00:54	21° Y 43'11	0°-21'-39
	-4907 Feb 11 j 09:58	0° M		min. Earth dist.	-4902 Nov 18 j 20:32	21° Y '44'38	4.28200 AU
retrograde	-4907 Mar 29 j 12:22	3°M08'54		direct	-4901 Jan 18 j 16:14	16° Ƴ 39'40	
	-4907 May 15 j 04:50	30° ₹ Ω		asc. node	-4901 Mar 22 j 15:03	22° Y 11'32	
opposition	-4907 May 29 j 12:13	28° ₽ 11'15	0°07'38		-4901 May 03 j 10:47	0°8	
min. Earth dist.	-4907 May 29 j 13:29	28° ≏ 10′50	4.09475 AU	evening set	-4901 May 26 j 14:23	4° 8 57'44	
desc. node	-4907 Jul 08 j 06:50	23° ≏ 56'40			•		
direct	-4907 Jul 28 j 05:09	23° ≏ 18'03		conjunction	-4901 Jun 09 j 02:47	7° 8 56'26	0°09'20
	-4907 Oct 03 j 11:23	0°M		minimum elong	-4901 Jun 09 j 02:45	7° 8 56'25	0°09'28
evening set	-4907 Nov 29 j 03:06			behind sun begin	-4901 Jun 08 j 19:57	7° 8 52'41	
e vennig set	-4907 Dec 11 j 00:42			behind sun end	-4901 Jun 09 j 09:34	8° 8 00'10	
	4707 BCC 11 J 00.42	13 110		max. Earth dist.	-4901 Jun 08 j 21:12	7° 8 53'22	6.32440 AU
conjunction	-4907 Dec 12 j 01:51	15°MJ14'56	0°-20'-1	morning rise	-4901 Jun 22 j 12:23	10° 8 53'37	0.52440 AC
minimum elong		15°M14'55	0°20'12	morning rise	3	10 8 3337	
•	-4907 Dec 12 j 01:49			. 1	-4901 Jul 11 j 13:41		
max. Earth dist.	-4907 Dec 12 j 12:52		6.05719 AU	retrograde	-4901 Oct 21 j 20:03	28° 8 15'28	0046106
morning rise	-4907 Dec 25 j 03:27	18° M ₊20'41		opposition	-4901 Dec 20 j 14:12		0°46'06
	-4906 Feb 16 j 14:47	0° ∡ ¹		min. Earth dist.	-4901 Dec 21 j 00:39		4.35665 AU
retrograde	-4906 May 05 j 11:36	8° ≯ 21'02		direct	-4900 Feb 20 j 08:58	18° 8 16'04	
min. Earth dist.	-4906 Jul 04 j 09:22	3° ≯ 24'51	4.03220 AU		-4900 May 28 j 10:45	Π $^{\circ}0$	
opposition	-4906 Jul 05 j 01:38	3° ҂ 19′27	-1°-6'-48	evening set	-4900 Jun 27 j 08:44	6° Ⅱ 18'13	
	-4906 Aug 01 j 17:05	30°RM₊		max. Earth dist.	-4900 Jul 09 j 10:30	8° Ⅱ 56'56	6.37661 AU
direct	-4906 Sep 01 j 14:07	28°M26'13					
	-4906 Oct 02 j 07:25	0° ∡ ¹		conjunction	-4900 Jul 10 j 12:08	9° Ⅱ 11'01	0°52'11
evening set	-4905 Jan 03 j 18:16	17° х 36′04		minimum elong	-4900 Jul 10 j 12:05	9° Ⅱ 11′00	0°52'25
				morning rise	-4900 Jul 23 j 12:01	12° Ⅲ 02'07	
conjunction	-4905 Jan 17 j 00:21	20° ∡ ¹44'54	-1°-4'-6	retrograde	-4900 Nov 20 j 19:08	29° Ⅱ 05'56	
minimum elong	-4905 Jan 17 j 00:17	20° х 44'52	1°04'22		v		
max. Earth dist.	-4905 Jan 18 j 09:11	21° ∡ 04'26	6.02154 AU				
morning rise	-4905 Jan 30 i 09:56						
	-4905 Feb 25 j 20:30	0°ਰ					
retrograde	-4905 Jun 11 j 10:22						
min. Earth dist.	-4905 Aug 09 j 08:16	9° ට 15'09	4.02880 AU				
opposition	-4905 Aug 10 j 11:18	9° ⋜ 06'00	-1°-57'-11				
direct	-4905 Oct 07 j 12:27	4°る10'33	-1 -5/ -11				
evening set	-4904 Feb 09 j 13:56						
evening set	-4904 Feb 09 J 15.50	23 024 30					
	4004 F 1 22:02:00	260-725110	10.041.00				
conjunction	-4904 Feb 23 j 03:00		-1°-24'-22				
minimum elong	-4904 Feb 23 j 02:59						
max. Earth dist.	-4904 Feb 25 j 00:28		6.04942 AU				
morning rise	-4904 Mar 07 j 18:33						
	-4904 Mar 08 j 16:50	0° ≈					
	-4904 May 21 j 14:38						
retrograde	-4904 Jul 16 j 06:46	19° ≈ 38′08					
	-4904 Sep 10 j 12:24	15°R ≈					
opposition	-4904 Sep 13 j 19:27	14° ≈ 33′02	-2°-3'-8				
min. Earth dist.	-4904 Sep 12 j 16:16	14° ≈ 42'19	4.08589 AU				
direct	-4904 Nov 11 j 03:57	9° ≈ 34'17					
	-4903 Jan 10 j 00:53	15° ≈					
evening set	-4903 Mar 17 j 10:57	28° ≈ 37'01					
C	-4903 Mar 23 j 11:58	0° ∀					
	. ,						
conjunction	-4903 Mar 31 j 04:32	1° ¥ 45'56	-1°-13'-24				
minimum elong	-4903 Mar 31 j 04:35	1°) (45'59					
max. Earth dist.	-4903 Apr 01 j 18:46	2°\(\frac{4}{3}\) 53	6.13012 AU				
morning rise	-4903 Apr 01 j 18.40	4° \(\frac{1}{35}\)	0.15012 AU				
•		23° H 54'45					
retrograde	-4903 Aug 19 j 05:53		10 251 25				
opposition							
min. Earth dist.	-4903 Oct 16 j 19:47	18° ¥ 58′07	4.18129 AU				
direct	-4903 Dec 15 j 22:36						
	-4902 Apr 10 j 22:45	0° Υ					
evening set	-4902 Apr 22 i 07:20	ついりょういん					

evening set

-4902 Apr 22 j 07:20 2°**Υ**30'40

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 1 Attention, astronomical year style is used: The year -4900 in astronomical counting style is the year 4901 BCE in historical counting style.

Attention, astronom	ical year style is used: Tl	ne year -4900	in astronomical cou	inting style is the year	4901 BCE in historical of	counting style	
direct	-4900 Feb 20 j 08:58				-4895 Nov 24 j 15:51		
	-4900 May 28 j 10:45	0° I I		evening set	-4895 Dec 04 j 00:11	17°M11'30	
evening set	-4900 Jun 27 j 08:44	6° Ⅱ 18'13					
max. Earth dist.	-4900 Jul 09 j 10:30	8°Щ56'56	6.37661 AU	conjunction	-4895 Dec 16 j 23:51		
	4000 1 1 10:12 00	οοπιμοι	0052111	minimum elong	-4895 Dec 16 j 23:49		0°27'12
conjunction	-4900 Jul 10 j 12:08	9° Ⅱ 11'01		max. Earth dist.	-4895 Dec 17 j 13:07		6.04797 AU
minimum elong	-4900 Jul 10 j 12:05 -4900 Jul 23 j 12:01	9° Ⅱ 11'00 12° Ⅱ 02'07	0°52'25	morning rise	-4895 Dec 30 j 02:40	23°11623'06 0° ₹ ¹	
morning rise retrograde	-4900 Jul 23 j 12:01 -4900 Nov 20 j 19:08	29° I 05'56		retrograde	-4894 Jan 28 j 00:08 -4894 May 10 j 16:03		
opposition	-4899 Jan 20 j 00:02	24° I 13'13	1°39'16	min. Earth dist.	-4894 Jul 09 j 10:20	8° ∡ 32'01	4.02641 AU
min. Earth dist.	-4899 Jan 20 j 23:00	24° I 15'15'249	4.38415 AU	opposition	-4894 Jul 10 j 04:29	8° × 25'59	-1°-15'-57
direct	-4899 Mar 23 j 12:23	19° Ⅱ 10'44	4.36413 AU	direct	-4894 Sep 06 j 14:45	3° ⊀ 32′29	-1 -13-37
uncer	-4899 Jun 25 j 03:56	0°9		evening set	-4893 Jan 08 j 20:52		
evening set	-4899 Jul 28 j 23:56	7° 5 06'54		evening see	10,500000	,	
max. Earth dist.	-4899 Aug 09 j 02:48		6.37592 AU	conjunction	-4893 Jan 22 j 04:10	25° х 53'59	-1°-8'-41
	,			minimum elong	-4893 Jan 22 j 04:07		1°08'57
conjunction	-4899 Aug 10 j 18:10	9° © 55'51	1°19'46	max. Earth dist.	-4893 Jan 23 j 16:38		6.01964 AU
minimum elong	-4899 Aug 10 j 18:07	9° © 55'50	1°20'02	morning rise	-4893 Feb 04 j 14:39		
morning rise	-4899 Aug 23 j 09:37	12°5543'27		, and the second	-4893 Feb 08 j 12:04	ರ°0	
retrograde	-4899 Dec 22 j 07:30	29° © 54'44		retrograde	-4893 Jun 16 j 14:56	19° る 19'54	
opposition	-4898 Feb 20 j 23:34	25°503'16	2°04'36	min. Earth dist.	-4893 Aug 14 j 09:29		4.03117 AU
min. Earth dist.	-4898 Feb 22 j 04:59	24°953'54	4.35667 AU	opposition	-4893 Aug 15 j 12:38	14° ප 15'11	-2°00'-56
direct	-4898 Apr 24 j 14:00	20°503'00		direct	-4893 Oct 12 j 13:17	9° る 19'20	
	-4898 Jul 22 j 01:20	$0^{\circ}\Omega$		evening set	-4892 Feb 14 j 19:21	28° る 33'49	
evening set	-4898 Aug 29 j 02:46	8° Ω 03'37			-4892 Feb 20 j 22:54	0° ≈	
max. Earth dist.	-4898 Sep 09 j 00:00	10° Ω 29'59	6.32286 AU				
				conjunction	-4892 Feb 28 j 09:08	1° ≈ 44′23	-1°-24'-41
conjunction	-4898 Sep 10 j 15:36			minimum elong	-4892 Feb 28 j 09:08	1° ≈ 44'23	1°24'55
minimum elong	-4898 Sep 10 j 15:38		1°25'00	max. Earth dist.	-4892 Mar 01 j 05:37	2° ≈ 10′26	6.05558 AU
morning rise	-4898 Sep 23 j 02:36			morning rise	-4892 Mar 13 j 01:35	4° ≈ 56′08	
	-4898 Sep 29 j 01:58	15° Ω			-4892 Apr 28 j 01:09	15° ≈	
	-4898 Dec 25 j 02:54	0° m		retrograde	-4892 Jul 21 j 04:02		
retrograde	-4897 Jan 24 j 00:46	1° m, 21'59		opposition	-4892 Sep 18 j 16:49		
	-4897 Feb 23 j 04:03	30°R€		min. Earth dist.	-4892 Sep 17 j 13:27		4.09527 AU
opposition	-4897 Mar 26 j 02:16				-4892 Nov 01 j 12:43		
min. Earth dist.	-4897 Mar 27 j 04:59		4.28145 AU	direct	-4892 Nov 16 j 02:54		
direct	-4897 May 27 j 01:49				-4892 Nov 30 j 20:35		
avanina aat	-4897 Aug 14 j 12:12 -4897 Sep 29 j 11:46	0°M)		evening set	-4891 Mar 06 j 09:29 -4891 Mar 22 j 15:10		
evening set max. Earth dist.	-4897 Oct 10 j 17:05	-	6 23164 ATT	evening set	-4691 Mai 22 j 13.10	3 X 3902	
max. Earth dist.	-4897 Oct 10 j 17.03	12 11/2034	0.23104 AU	conjunction	-4891 Apr 05 j 09:13	6°) 47'37	-1°-9'-31
conjunction	-4897 Oct 12 j 00:07	12° m 38'44	1°04'48	minimum elong	-4891 Apr 05 j 09:17	6°) (47'40	1°09'39
minimum elong	-4897 Oct 12 j 00:11	12° m/38'46	1°04'54	max. Earth dist.	-4891 Apr 06 j 22:08	7°) €08'45	6.14230 AU
morning rise	-4897 Oct 24 j 12:36	15° m/31'06	1 0.0.	morning rise	-4891 Apr 19 j 03:52	9° ¥ 56'19	0.1 .200 110
	-4896 Jan 05 j 23:25	0∘ ⊽		retrograde	-4891 Aug 24 j 00:13	28°) (48'22	
retrograde	-4896 Feb 27 j 12:48	4° £ 00'46		opposition	-4891 Oct 22 j 07:50		-1°-17'-24
Č	-4896 Apr 21 j 15:15	30°R, M⊅		min. Earth dist.	-4891 Oct 21 j 14:51		4.19505 AU
opposition	-4896 Apr 28 j 16:04	29° m 06'17	1°08'17	direct	-4891 Dec 20 j 20:34	18°) 43′39	
min. Earth dist.	-4896 Apr 29 j 08:08	29° m 01'08	4.17940 AU		-4890 Mar 23 j 23:18	0° Υ	
direct	-4896 Jun 28 j 12:48	24°M/11'35		evening set	-4890 Apr 27 j 07:18	7° Y 21′15	
	-4896 Aug 30 j 18:20	0∘ ⊽					
evening set	-4896 Oct 30 j 21:46	12° ≏ 45'34		conjunction	-4890 May 11 j 00:40	10° Y 25′08	0°-31'-5
				minimum elong	-4890 May 11 j 00:43	10° Y 25′09	0°31'04
conjunction	-4896 Nov 12 j 14:36	15° ≏ 43'58	0°23'36	max. Earth dist.	-4890 May 11 j 17:26	10° Ƴ 34'30	6.24806 AU
minimum elong	-4896 Nov 12 j 14:38	15° ≏ 43'59	0°23'32	morning rise	-4890 May 24 j 16:32		
max. Earth dist.	-4896 Nov 12 j 03:58	15° ≙ 37'45	6.12862 AU		-4890 Aug 26 j 11:47	0°8	
morning rise	-4896 Nov 25 j 09:04	18° ≙ 43'27		retrograde	-4890 Sep 25 j 02:07	1° 8 24'06	
	-4895 Jan 16 j 16:00	0°M			-4890 Oct 24 j 13:20		
retrograde	-4895 Apr 03 j 14:42	8°M06'55		opposition	-4890 Nov 23 j 13:57		0°-11'-47
desc. node	-4895 May 18 j 11:19	5°M10'47	00.21.5	min. Earth dist.	-4890 Nov 23 j 10:22	26° Υ 26'20	4.29667 AU
opposition	-4895 Jun 03 j 13:56	3°M08'45	0°-3'-6	direct	-4889 Jan 23 j 09:04		
min. Earth dist.	-4895 Jun 03 j 12:37	3°M09'11	4.08308 AU	asc. node	-4889 Jan 29 j 18:58		
direct	-4895 Jun 29 j 21:16	30° ₹ Ω		ovenint	-4889 Apr 14 j 14:16	0° 8	
direct	-4895 Aug 02 j 01:27	28° £ 15'43		evening set	-4889 May 31 j 08:16	9° 8 35'49	
	-4895 Sep 03 j 22:02	0° M					

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 2 Attention, astronomical year style is used: The year -4889 in astronomical counting style is the year 4890 BCE in historical counting style.

	ical year style is used: Th	-					
conjunction	-4889 Jun 13 j 19:27			conjunction	-4884 Nov 17 j 03:20		0°16'59
minimum elong	-4889 Jun 13 j 19:26		0°16'04	minimum elong	-4884 Nov 17 j 03:21		0°16'55
max. Earth dist.	-4889 Jun 13 j 11:40	12° 8 29'10	6.33821 AU	max. Earth dist.	-4884 Nov 16 j 17:50	20° ≏ 19'31	6.11237 AU
	-4889 Jun 24 j 21:48	15° 8		morning rise	-4884 Nov 29 j 23:01	23° ≏ 25'49	
morning rise	-4889 Jun 27 j 03:41	15° 8 29'30			-4884 Dec 28 j 22:32	0° M ₊	
Č	-4889 Sep 13 j 17:28	Π°		desc. node	-4883 Mar 30 j 13:37	12°M49'54	
retrograde	-4889 Oct 26 j 05:20	2° ∏ 45'52		retrograde	-4883 Apr 08 j 14:59	12°M57'44	
retrograde	-4889 Dec 07 j 23:30	30°R 8		opposition	-4883 Jun 08 j 12:42	7°M59'02	0°-13'-30
***			0054145				
opposition	-4889 Dec 25 j 00:46		0°54'45	min. Earth dist.	-4883 Jun 08 j 09:18	8°M00'09	4.06743 AU
min. Earth dist.	-4889 Dec 25 j 13:10	27° 8 46'37	4.36863 AU	direct	-4883 Aug 06 j 19:55	3°M06'01	
direct	-4888 Feb 25 j 00:01	22° 8 47'03			-4883 Nov 07 j 17:16	15° M	
	-4888 May 09 j 02:58	Π $^{\circ}$ 0		evening set	-4883 Dec 08 j 19:34	22°M06'44	
evening set	-4888 Jul 01 j 20:36	10° Ⅱ 45'42					
				conjunction	-4883 Dec 21 j 20:33	25° M ₁2'49	0°-33'-36
conjunction	-4888 Jul 14 j 22:31	13° Ⅲ 37'32	0°57'06	minimum elong	-4883 Dec 21 j 20:31	25° M ₊12'47	0°33'50
minimum elong	-4888 Jul 14 j 22:28	13° Ⅱ 37'30	0°57'20	max. Earth dist.	-4883 Dec 22 j 14:09		6.03453 AU
max. Earth dist.	-4888 Jul 13 j 18:03	13° Ⅱ 21'54	6.38566 AU	morning rise	-4882 Jan 04 j 00:31		0.03 133 710
	3		0.38300 AU	morning risc			
morning rise	-4888 Jul 27 j 21:03	16° Ⅱ 27'41			-4882 Jan 11 j 01:31	0° ⊀ 7	
	-4888 Oct 07 j 19:07	0		retrograde	-4882 May 15 j 21:51	18° ∡ ³31′50	
retrograde	-4888 Nov 25 j 02:11	3° © 28'59		min. Earth dist.	-4882 Jul 14 j 10:56	13° ∡ ³35'48	4.01680 AU
	-4887 Jan 13 j 10:12	30°Ŗ Ⅱ		opposition	-4882 Jul 15 j 06:17	13° ∡ ¹29'20	-1°-24'-20
opposition	-4887 Jan 24 j 09:34	28° Ⅲ 36′29	1°44'31	direct	-4882 Sep 11 j 13:28	8° ∡ ³35'41	
min. Earth dist.	-4887 Jan 25 j 09:36	28° Ⅲ 28'44	4.38987 AU	evening set	-4881 Jan 13 j 23:41	27° х 51'37	
direct	-4887 Mar 27 j 23:33	23° Ⅱ 34′09		Ü	-4881 Jan 23 j 00:08	0°ರ	
	-4887 Jun 05 j 16:04	0.ಪ			,		
evening set	-4887 Aug 02 j 07:13	11° © 28'09		conjunction	-4881 Jan 27 j 07:57	1° る 01'43	10 121 38
•	e J		(27774 ATT	•	-		
max. Earth dist.	-4887 Aug 13 j 09:17	13*954.53	6.37774 AU	minimum elong	-4881 Jan 27 j 07:53		1°12'54
		_		max. Earth dist.	-4881 Jan 28 j 21:39	1° る 24'07	6.01453 AU
conjunction	-4887 Aug 15 j 00:26	14° © 16'33	1°21'49	morning rise	-4881 Feb 09 j 19:41	4° る 13'33	
minimum elong	-4887 Aug 15 j 00:24	14° © 16'32	1°22'05	retrograde	-4881 Jun 21 j 17:10	24° る 29'06	
morning rise	-4887 Aug 27 j 14:45	17° © 03'39		min. Earth dist.	-4881 Aug 19 j 08:44	19° る 34'02	4.03141 AU
	-4887 Nov 02 j 13:33	$0^{\circ}\Omega$		opposition	-4881 Aug 20 j 13:46	19° る 24'09	-2°-3'-38
retrograde	-4887 Dec 26 j 15:40	4° Ω 15'47		direct	-4881 Oct 17 j 12:58	14° る 27'54	
	-4886 Feb 20 j 17:44	30°Rூ			-4880 Feb 03 i 20:49	0° ≈	
opposition	-4886 Feb 25 j 10:06	29° © 24'21	2°05'14	evening set	-4880 Feb 20 j 01:39	3°≈43'21	
**	,	29° © 14'51		evening set	-4000 Feb 20 J 01.39	3 ≈ 43 21	
min. Earth dist.	-4886 Feb 26 j 16:00	29°9014'51 24°9024'26	4.35438 AU		400034 04:1605	co 7.11 0.6	
direct	-4886 Apr 29 j 00:05						
				conjunction	-4880 Mar 04 j 16:25	6° ≈ 54'06	-1°-24'-16
	-4886 Jul 02 j 01:01	$0^{\circ}\Omega$		minimum elong	-4880 Mar 04 j 16:25 -4880 Mar 04 j 16:26	6°≈54'06 6°≈54'06	-1°-24'-16 1°24'30
evening set				•			
evening set max. Earth dist.	-4886 Jul 02 j 01:01	0° Ω 12° Ω 24'35	6.31645 AU	minimum elong	-4880 Mar 04 j 16:26	6°≈54'06 7°≈20'48	1°24'30
-	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17	0° N 12° N 24'35 14° N 50'08	6.31645 AU	minimum elong max. Earth dist.	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24	6°≈54'06 7°≈20'48	1°24'30
-	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04	0° N 12° N 24'35 14° N 50'08	6.31645 AU	minimum elong max. Earth dist. morning rise	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16	6°≈54'06 7°≈20'48 10°≈05'49 15°≈	1°24'30
max. Earth dist.	-4886 Sep 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47	0°N 12°N24'35 14°N50'08 15°N		minimum elong max. Earth dist. morning rise	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42	1°24'30 6.06113 AU
max. Earth dist.	-4886 Sep 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16	1°23'29	minimum elong max. Earth dist. morning rise retrograde opposition	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51	1°24'30 6.06113 AU -1°-56'-11
max. Earth dist. conjunction minimum elong	-4886 Sep 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16	1°23'29	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48	1°24'30 6.06113 AU
max. Earth dist.	-4886 Sep 12 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24	1°23'29	minimum elong max. Earth dist. morning rise retrograde opposition	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03	$6^{\circ} \approx 54'06$ $7^{\circ} \approx 20'48$ $10^{\circ} \approx 05'49$ $15^{\circ} \approx$ $29^{\circ} \approx 46'42$ $24^{\circ} \approx 41'51$ $24^{\circ} \approx 50'48$ $19^{\circ} \approx 42'11$	1°24'30 6.06113 AU -1°-56'-11
max. Earth dist. conjunction minimum elong morning rise	-4886 Sep 02 j 08:04 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°M	1°23'29	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0°∺	1°24'30 6.06113 AU -1°-56'-11
max. Earth dist. conjunction minimum elong morning rise retrograde	-4886 Sep 02 j 08:04 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Jan 28 j 14:11	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°™ 5°™47'39	1°23'29 1°23'40	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03	$6^{\circ} \approx 54'06$ $7^{\circ} \approx 20'48$ $10^{\circ} \approx 05'49$ $15^{\circ} \approx$ $29^{\circ} \approx 46'42$ $24^{\circ} \approx 41'51$ $24^{\circ} \approx 50'48$ $19^{\circ} \approx 42'11$	1°24'30 6.06113 AU -1°-56'-11
max. Earth dist. conjunction minimum elong morning rise	-4886 Sep 02 j 08:04 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Jan 28 j 14:11 -4885 Mar 30 j 16:02	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°™ 5°™47'39 0°™55'19	1°23'29 1°23'40 1°50'05	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Mar 27 j 19:40	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° ₩ 8° ₩40'49	1°24'30 6.06113 AU -1°-56'-11
max. Earth dist. conjunction minimum elong morning rise retrograde	-4886 Sep 02 j 08:04 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Jan 28 j 14:11	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°™ 5°™47'39	1°23'29 1°23'40	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° ₩ 8° ₩40'49	1°24'30 6.06113 AU -1°-56'-11
max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-4886 Sep 02 j 08:04 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Jan 28 j 14:11 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°™ 5°™47'39 0°™55'19	1°23'29 1°23'40 1°50'05	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Mar 27 j 19:40	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° ₩ 8° ₩40'49	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-4886 Sep 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Jan 28 j 14:11 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°™ 5°™47'39 0°™55'19 0°™46'49 30°RΩ	1°23'29 1°23'40 1°50'05	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Mar 27 j 19:40 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:01	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° ★ 8° ★40'49 11° ★48'58 11° ★49'00	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11
max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-4886 Sep 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Jan 28 j 14:11 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°m 5°m47'39 0°m55'19 0°m46'49 30°RΩ 25°Ω58'13	1°23'29 1°23'40 1°50'05	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Mar 27 j 19:40 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 12 j 02:05	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° \text{\texi\tex{\text{\text{\text{\text{\text{\text{\text{\t	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04 -4885 Jul 23 j 09:38	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°m 5°m47'39 0°m55'19 0°m46'49 30°RΩ 25°Ω58'13 0°m	1°23'29 1°23'40 1°50'05	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 10 j 12:05 -4879 Apr 24 j 08:39	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° \times 8°\times 40'49 11°\times 48'58 11°\times 49'00 12°\times 09'32 14°\times 57'03	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Jan 28 j 14:11 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04 -4885 Jul 23 j 09:38 -4885 Oct 03 j 18:24	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°m 5°m47'39 0°m55'19 0°m55'19 0°m46'49 30°RΩ 25°Ω58'13 0°m	1°23'29 1°23'40 1°50'05 4.27105 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Apr 27 j 19:40 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 12 j 02:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° ₩ 8° ₩40'49 11° ₩48'58 11° ₩49'00 12° ₩09'32 14° ₩57'03 0° ♥	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04 -4885 Jul 23 j 09:38	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°m 5°m47'39 0°m55'19 0°m46'49 30°RΩ 25°Ω58'13 0°m	1°23'29 1°23'40 1°50'05 4.27105 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Apr 27 j 19:40 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 12 j 02:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Aug 28 j 15:48	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° ₩ 8° ₩40'49 11° ₩48'58 11° ₩49'00 12° ₩09'32 14° ₩57'03 0° Ψ 3° Ψ40'47	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Jan 28 j 14:11 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04 -4885 Jul 23 j 09:38 -4885 Oct 03 j 18:24 -4885 Oct 15 j 02:19	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°™ 5°™47'39 0°™55'19 0°™46'49 30°RΩ 25°Ω58'13 0°™ 14°™14'04 16°™50'15	1°23'29 1°23'40 1°50'05 4.27105 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Mar 27 j 19:40 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Aug 28 j 15:48 -4879 Oct 16 j 21:17	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° € 8° € 40'49 11° € 48'58 11° € 49'00 12° € 09'32 14° € 57'03 0° ♥ 3° ♥ 40'47 30° € €	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11 6.15577 AU
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Jan 28 j 14:11 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04 -4885 Jul 23 j 09:38 -4885 Oct 03 j 18:24 -4885 Oct 15 j 02:19	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°™ 5°™47'39 0°™55'19 0°™46'49 30°RΩ 25°Ω58'13 0°™ 14°™14'04 16°™50'15	1°23'29 1°23'40 1°50'05 4.27105 AU 6.21827 AU 1°00'17	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist.	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Mar 27 j 19:40 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 12 j 02:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Aug 28 j 15:48 -4879 Oct 16 j 21:17 -4879 Oct 26 j 07:51	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° ₩ 8° ₩ 40'49 11° ₩ 48'58 11° ₩ 49'00 12° ₩ 09'32 14° ₩ 57'03 0° Ψ 3° Ψ 40'47 30° ₹ ₩ 28° ₩ 44'09	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11 6.15577 AU
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Mar 30 j 16:02 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Mar 31 j 13:04 -4885 Jul 23 j 09:38 -4885 Oct 03 j 18:24 -4885 Oct 16 j 07:15 -4885 Oct 16 j 07:19	0° \(\Omega\) 12° \(\Omega\) 24'35 14° \(\Omega\) 50'08 15° \(\Omega\) 13'16 15° \(\Omega\) 13'16 18° \(\Omega\) 0' \(\Omega\) 5° \(\Omega\) 47'39 0° \(\Omega\) 55'19 0° \(\Omega\) 46'49 30° \(\Omega\) 0' \(\Omega\) 6'58 13° \(\Omega\) 0' \(\Omega\) 14° \(\Omega\) 14'04 16° \(\Omega\) 50'15 17° \(\Omega\) 06'56 17° \(\Omega\) 06'58	1°23'29 1°23'40 1°50'05 4.27105 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Mar 27 j 19:40 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Aug 28 j 15:48 -4879 Oct 16 j 21:17 -4879 Oct 26 j 07:51 -4879 Oct 27 j 00:25	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0°	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11 6.15577 AU
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Jan 28 j 14:11 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04 -4885 Jul 23 j 09:38 -4885 Oct 03 j 18:24 -4885 Oct 15 j 02:19	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°™ 5°™47'39 0°™55'19 0°™46'49 30°RΩ 25°Ω58'13 0°™ 14°™14'04 16°™50'15	1°23'29 1°23'40 1°50'05 4.27105 AU 6.21827 AU 1°00'17	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist.	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Mar 27 j 19:40 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 12 j 02:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Aug 28 j 15:48 -4879 Oct 16 j 21:17 -4879 Oct 26 j 07:51	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° \(\) 8° \(\) 40'49 11° \(\) 48'58 11° \(\) 49'00 12° \(\) 12° \(\) 3° \(\) 49'07 3° \(\) 3° \(\) 40'47 30° \(\) 28° \(\) 38' \(\) 44'09 28° \(\) 38'32 23° \(\) 36'08	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11 6.15577 AU
conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Mar 30 j 16:02 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Mar 31 j 13:04 -4885 Jul 23 j 09:38 -4885 Oct 03 j 18:24 -4885 Oct 16 j 07:15 -4885 Oct 16 j 07:19	0° \(\Omega\) 12° \(\Omega\) 24'35 14° \(\Omega\) 50'08 15° \(\Omega\) 13'16 15° \(\Omega\) 13'16 18° \(\Omega\) 0' \(\Omega\) 5° \(\Omega\) 47'39 0° \(\Omega\) 55'19 0° \(\Omega\) 46'49 30° \(\Omega\) 0' \(\Omega\) 6'58 13° \(\Omega\) 0' \(\Omega\) 14° \(\Omega\) 14'04 16° \(\Omega\) 50'15 17° \(\Omega\) 06'56 17° \(\Omega\) 06'58	1°23'29 1°23'40 1°50'05 4.27105 AU 6.21827 AU 1°00'17	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Mar 27 j 19:40 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Aug 28 j 15:48 -4879 Oct 16 j 21:17 -4879 Oct 26 j 07:51 -4879 Oct 27 j 00:25	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0°	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11 6.15577 AU
conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-4886 Sep 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Jan 28 j 14:11 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04 -4885 Oct 03 j 18:24 -4885 Oct 16 j 07:15 -4885 Oct 16 j 07:19 -4885 Oct 28 j 20:11	0°R 12°R24'35 14°R50'08 15°R 15°R13'16 15°R13'16 15°R01'24 0°M 5°M47'39 0°M55'19 0°M46'49 30°RR 25°R58'13 0°M 14°M14'04 16°M50'15 17°M06'56 17°M06'58 20°M00'05	1°23'29 1°23'40 1°50'05 4.27105 AU 6.21827 AU 1°00'17	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Oct 26 j 07:51 -4879 Oct 27 j 00:25 -4879 Oct 27 j 00:25 -4879 Dec 25 j 16:35 -4878 Mar 03 j 01:05	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° H 8° H40'49 11° H48'58 11° H9'00 12° H09'32 14° H57'03 0° Υ 3° Υ40'47 30° R H 28° H44'09 28° H38'32 23° H36'08 0° Υ	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11 6.15577 AU
conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Jan 28 j 14:11 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04 -4885 Jul 23 j 09:38 -4885 Oct 03 j 18:24 -4885 Oct 16 j 07:19 -4885 Oct 16 j 07:19 -4885 Oct 28 j 20:11 -4885 Dec 14 j 11:33 -4884 Mar 03 j 06:57	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°m 5°m47'39 0°m55'19 0°m46'49 30°RΩ 25°Ω58'13 0°m 14°m14'04 16°m50'15 17°m06'58 20°m00'05 0°Ω 8°Ω37'04	1°23'29 1°23'40 1°50'05 4.27105 AU 6.21827 AU 1°00'17	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Oct 26 j 07:51 -4879 Oct 26 j 07:51 -4879 Oct 27 j 00:25 -4879 Dec 25 j 16:35 -4878 Mar 03 j 01:05	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° H 8° H40'49 11° H48'58 11° H9'00 12° H09'32 14° H57'03 0° Υ 3° Υ40'47 30° R H 28° H44'09 28° H38'32 23° H36'08 0° Υ	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11 6.15577 AU
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Jan 28 j 14:11 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04 -4885 Jul 23 j 09:38 -4885 Oct 03 j 18:24 -4885 Oct 16 j 07:15 -4885 Oct 16 j 07:15 -4885 Oct 28 j 20:11 -4885 Dec 14 j 11:33 -4884 Mar 03 j 06:57 -4884 May 03 j 10:12	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°m 5°m47'39 0°m55'19 0°m46'49 30°RΩ 25°Ω58'13 0°m 14°m14'04 16°m50'15 17°m06'58 20°m00'05 0°Ω 8°Ω37'04 3°Ω42'11	1°23'29 1°23'40 1°50'05 4.27105 AU 6.21827 AU 1°00'17 1°00'21	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 12 j 02:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Apr 24 j 08:39 -4879 Oct 26 j 07:51 -4879 Oct 27 j 00:25 -4879 Dec 25 j 16:35 -4878 Mar 03 j 01:05 -4878 May 02 j 06:23	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° € 8° € 40'49 11° € 48'58 11° € 49'00 12° € 70'32 14° € 57'03 0° ♀ 3° ♀ 44'09 28° € 44'09 28° € 38'32 23° € 36'08 0° ♀ 12° ♀ 09'50	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11 6.15577 AU 4.21029 AU -1°-8'-49
conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Mar 30 j 16:02 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04 -4885 Jul 23 j 09:38 -4885 Oct 03 j 18:24 -4885 Oct 16 j 07:15 -4885 Oct 16 j 07:15 -4885 Oct 16 j 07:19 -4885 Oct 28 j 20:11 -4885 Oct 28 j 20:11 -4885 Dec 14 j 11:33 -4884 Mar 03 j 06:57 -4884 May 03 j 10:12 -4884 May 04 j 00:53	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°™ 5°™47'39 0°™55'19 0°™46'49 30°RΩ 25°Ω58'13 0°™ 14°™14'04 16°™50'15 17°™06'56 17°™06'58 20°™00'05 0°Ω 8°Ω37'04 3°Ω42'11 3°Ω37'29	1°23'29 1°23'40 1°50'05 4.27105 AU 6.21827 AU 1°00'17 1°00'21	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 10 j 14:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Oct 26 j 07:51 -4879 Oct 26 j 07:51 -4879 Dec 25 j 16:35 -4878 Mar 03 j 01:05 -4878 May 02 j 06:23	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° ₩ 8° ₩ 40'49 11° ₩ 48'58 11° ₩ 49'00 12° ₩ 09'32 14° ₩ 57'03 0° ϒ 3° ϒ 40'47 30° ℝ ₩ 28° ₩ 44'09 28° ₩ 38'32 23° ₩ 36'08 0° ϒ 12° ϒ 09'50	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11 6.15577 AU 4.21029 AU -1°-8'-49
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Mar 30 j 16:02 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04 -4885 Jul 23 j 09:38 -4885 Oct 03 j 18:24 -4885 Oct 16 j 07:15 -4885 Oct 16 j 07:15 -4885 Oct 16 j 07:19 -4885 Oct 28 j 20:11 -4885 Dec 14 j 11:33 -4884 Mar 03 j 06:57 -4884 May 03 j 10:12 -4884 May 04 j 00:53 -4884 Jun 05 j 05:48	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°™ 5°™47'39 0°™55'19 0°™46'49 30°RΩ 25°Ω58'13 0°™ 14°™14'04 16°™50'15 17°™06'56 17°™06'58 20°™00'05 0°Ω 8°Ω37'04 3°Ω42'11 3°Ω37'29 30°R™	1°23'29 1°23'40 1°50'05 4.27105 AU 6.21827 AU 1°00'17 1°00'21	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Mar 27 j 19:40 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 12 j 02:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Oct 26 j 07:51 -4879 Oct 26 j 07:51 -4879 Oct 27 j 00:25 -4878 Mar 03 j 01:05 -4878 May 02 j 06:23 -4878 May 15 j 23:04 -4878 May 15 j 23:04	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0° 8° **H40'49 11° **H49'00 12° 12° 3° Y40'47 30° 3° Y40'47 30° 3° 44'09 28° 3° 44'09 28° 3° 44'09 28° 3° 44'09 28° 3° 44'09 28° 3° 44'09 28° 3° 44'09 28° 44'09 28° 44'09 28° 44'09 28° 50° 6	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11 6.15577 AU 4.21029 AU -1°-8'-49
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Mar 30 j 16:02 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04 -4885 Jul 23 j 09:38 -4885 Oct 03 j 18:24 -4885 Oct 16 j 07:15 -4885 Oct 16 j 07:15 -4885 Oct 16 j 07:19 -4885 Oct 28 j 20:11 -4885 Dec 14 j 11:33 -4884 Mar 03 j 06:57 -4884 May 04 j 00:53 -4884 Jul 05 j 05:48 -4884 Jul 05 j 05:48	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°™ 5°™47'39 0°™55'19 0°™46'49 30°RΩ 25°Ω58'13 0°™ 14°™14'04 16°™50'15 17°™06'56 17°™06'58 20°™00'05 0°Ω 8°Ω37'04 3°Ω42'11 3°Ω37'29 30°R™ 28°™47'47	1°23'29 1°23'40 1°50'05 4.27105 AU 6.21827 AU 1°00'17 1°00'21	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist.	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 12 j 02:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Apr 24 j 08:39 -4879 Apr 24 j 08:39 -4879 Oct 16 j 21:17 -4879 Oct 26 j 07:51 -4879 Oct 27 j 00:25 -4879 Mar 03 j 01:05 -4878 Mar 03 j 01:05 -4878 May 15 j 23:04 -4878 May 15 j 23:07 -4878 May 16 j 12:02	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0°	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11 6.15577 AU 4.21029 AU -1°-8'-49
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Mar 30 j 16:02 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04 -4885 Jul 23 j 09:38 -4885 Oct 03 j 18:24 -4885 Oct 15 j 02:19 -4885 Oct 16 j 07:15 -4885 Oct 16 j 07:15 -4885 Oct 28 j 20:11 -4885 Oct 28 j 20:11 -4885 Mar 03 j 06:57 -4884 May 04 j 00:53 -4884 May 04 j 00:53 -4884 Jul 03 j 02:03 -4884 Jul 30 j 18:07	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°™ 5°™47'39 0°™55'19 0°™46'49 30°RΩ 25°Ω58'13 0°™ 14°™14'04 16°™50'15 17°™06'56 17°™06'56 17°™06'58 20°™00'05 0°Ω 8°Ω37'04 3°Ω42'11 3°Ω37'29 30°R™ 28°™47'47 0°Ω	1°23'29 1°23'40 1°50'05 4.27105 AU 6.21827 AU 1°00'17 1°00'21	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Mar 27 j 19:40 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 12 j 02:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Oct 16 j 21:17 -4879 Oct 26 j 07:51 -4879 Oct 27 j 00:25 -4879 Mar 03 j 01:05 -4878 Mar 03 j 01:05 -4878 May 15 j 23:07 -4878 May 16 j 12:02 -4878 May 29 j 14:08	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0°	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11 6.15577 AU 4.21029 AU -1°-8'-49
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Mar 30 j 16:02 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04 -4885 Jul 23 j 09:38 -4885 Oct 03 j 18:24 -4885 Oct 16 j 07:15 -4885 Oct 16 j 07:15 -4885 Oct 16 j 07:19 -4885 Oct 28 j 20:11 -4885 Dec 14 j 11:33 -4884 Mar 03 j 06:57 -4884 May 04 j 00:53 -4884 Jul 05 j 05:48 -4884 Jul 05 j 05:48	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°™ 5°™47'39 0°™55'19 0°™46'49 30°RΩ 25°Ω58'13 0°™ 14°™14'04 16°™50'15 17°™06'56 17°™06'58 20°™00'05 0°Ω 8°Ω37'04 3°Ω42'11 3°Ω37'29 30°R™ 28°™47'47	1°23'29 1°23'40 1°50'05 4.27105 AU 6.21827 AU 1°00'17 1°00'21	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. opposition direct evening set	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Mar 27 j 19:40 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 12 j 02:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Apr 24 j 08:39 -4879 Apr 24 j 08:39 -4879 Apr 26 j 07:51 -4879 Oct 26 j 07:51 -4879 Oct 27 j 00:25 -4879 Dec 25 j 16:35 -4878 Mar 03 j 01:05 -4878 May 15 j 23:04 -4878 May 15 j 23:07 -4878 May 16 j 12:02 -4878 May 29 j 14:08 -4878 May 29 j 14:08 -4878 May 29 j 14:08	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0°	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11 6.15577 AU 4.21029 AU -1°-8'-49
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-4886 Jul 02 j 01:01 -4886 Sep 02 j 08:04 -4886 Sep 13 j 03:17 -4886 Sep 13 j 20:47 -4886 Sep 14 j 20:19 -4886 Sep 14 j 20:21 -4886 Sep 14 j 20:21 -4886 Sep 27 j 07:17 -4886 Nov 25 j 12:57 -4885 Mar 30 j 16:02 -4885 Mar 30 j 16:02 -4885 Mar 31 j 18:46 -4885 Apr 06 j 22:56 -4885 May 31 j 13:04 -4885 Jul 23 j 09:38 -4885 Oct 03 j 18:24 -4885 Oct 15 j 02:19 -4885 Oct 16 j 07:15 -4885 Oct 16 j 07:15 -4885 Oct 28 j 20:11 -4885 Oct 28 j 20:11 -4885 Mar 03 j 06:57 -4884 May 04 j 00:53 -4884 May 04 j 00:53 -4884 Jul 03 j 02:03 -4884 Jul 30 j 18:07	0°Ω 12°Ω24'35 14°Ω50'08 15°Ω 15°Ω13'16 15°Ω13'16 18°Ω01'24 0°™ 5°™47'39 0°™55'19 0°™46'49 30°RΩ 25°Ω58'13 0°™ 14°™14'04 16°™50'15 17°™06'56 17°™06'56 17°™06'58 20°™00'05 0°Ω 8°Ω37'04 3°Ω42'11 3°Ω37'29 30°R™ 28°™47'47 0°Ω	1°23'29 1°23'40 1°50'05 4.27105 AU 6.21827 AU 1°00'17 1°00'21	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist.	-4880 Mar 04 j 16:26 -4880 Mar 06 j 14:05 -4880 Mar 18 j 09:24 -4880 Apr 08 j 23:16 -4880 Jul 26 j 03:52 -4880 Sep 23 j 14:27 -4880 Sep 22 j 12:17 -4880 Nov 21 j 04:03 -4879 Feb 15 j 18:53 -4879 Mar 27 j 19:40 -4879 Apr 10 j 14:01 -4879 Apr 10 j 14:05 -4879 Apr 12 j 02:05 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Apr 24 j 08:39 -4879 Jul 10 j 14:54 -4879 Oct 16 j 21:17 -4879 Oct 26 j 07:51 -4879 Oct 27 j 00:25 -4879 Mar 03 j 01:05 -4878 Mar 03 j 01:05 -4878 May 15 j 23:07 -4878 May 16 j 12:02 -4878 May 29 j 14:08	6°≈54'06 7°≈20'48 10°≈05'49 15°≈ 29°≈46'42 24°≈41'51 24°≈50'48 19°≈42'11 0°	1°24'30 6.06113 AU -1°-56'-11 4.10527 AU -1°-5'-4 1°05'11 6.15577 AU 4.21029 AU -1°-8'-49

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4878 in astronomical counting style is the year 4879 BCE in historical counting style. -4878 Nov 28 i 02:24 1°**8**04'55 0°-1'-51 min. Earth dist. -4872 May 08 j 23:24 8°**2**32'04 4.14727 AU opposition min. Earth dist. -4878 Nov 28 i 01:50 1°805'07 4.31082 AU -4872 Jul 07 j 22:15 3°**º**41'50 direct -4878 Dec 06 j 06:39 30°R℃ -4872 Nov 09 j 04:23 22°**2**23'38 evening set -4878 Dec 08 j 18:05 29° Υ 40'50 asc. node -4877 Jan 28 j 03:07 26°**Υ**01'11 -4872 Nov 21 j 23:05 25° **2**24'12 0°09'50 direct conjunction -4872 Nov 21 j 23:06 25°**Ω**24'12 0°09'45 -4877 Mar 21 j 23:21 ್ಣಿ ೧°႘ minimum elong -4872 Nov 21 j 16:28 25°**£**20'18 evening set -4877 Jun 05 j 01:08 14°**8**12'02 behind sun begin -4872 Nov 22 j 05:45 25°**2**28'06 -4877 Jun 08 j 16:51 15°**႘** behind sun end -4872 Nov 21 j 18:37 25°**£**21'35 max. Earth dist. 6.09760 AU conjunction -4877 Jun 18 j 11:11 17°**8**08'42 0°22'24 morning rise -4872 Dec 04 j 19:47 28°**£**26'03 minimum elong -4877 Jun 18 j 11:09 17°**8**08'41 0°22'35 -4872 Dec 11 j 12:54 0° M -4877 Jun 18 j 00:38 17°**8**02'55 -4871 Feb 06 j 17:06 11°ML52'39 max. Earth dist. 6.34958 AU desc. node -4877 Jul 01 j 18:00 20°**8**03'44 -4871 Feb 27 j 10:09 15°M morning rise -4877 Aug 19 j 15:26 $0^{\circ}II$ retrograde -4871 Apr 13 j 22:48 18°M05'23 retrograde -4877 Oct 30 j 13:09 7°**Ⅱ**15'50 -4871 May 29 j 21:06 15°RM opposition -4877 Dec 29 j 11:00 2°**Ⅲ**21′05 1°03'10 opposition -4871 Jun 13 j 17:58 13°ML06'11 0°-24'-27 min. Earth dist. -4877 Dec 30 j 00:42 2°**Ц**16'37 4.37655 AU min. Earth dist. -4871 Jun 13 j 12:28 13°ML08'00 4.05614 AU 8°ML13'16 -4876 Jan 17 j 05:09 30°R ₩ direct -4871 Aug 11 j 21:30 direct -4876 Feb 29 j 12:08 27°**8**17'33 -4871 Oct 18 j 03:04 15° ML -4876 Apr 13 j 03:06 Π $^{\circ}0$ evening set -4871 Dec 13 j 21:14 27° ML 16'59 evening set -4876 Jul 06 j 08:35 15°**Ⅲ**14'26 -4871 Dec 25 j 07:14 -4876 Jul 18 j 02:27 17°**Ⅲ**48'41 max. Earth dist. 6.38934 AU conjunction -4871 Dec 26 i 23:07 0°**∡**23'47 0°-40'-19 conjunction -4876 Jul 19 j 09:06 18°**耳**05'31 1°01'48 minimum elong -4871 Dec 26 i 23:04 0°**х** 23′45 0°40'32 -4876 Jul 19 j 09:02 18°**耳**05'29 1°02'03 max. Earth dist. -4871 Dec 27 j 19:24 0°**∡**35′52 6.02779 AU minimum elong -4876 Aug 01 j 06:17 20°**Ⅲ**54'58 -4870 Jan 09 j 04:24 3°**₹**32'24 morning rise morning rise -4876 Sep 14 j 13:47 -4870 May 21 j 03:37 23° ₹ 46'22 0ಂತಾ retrograde -4876 Nov 29 j 12:37 opposition -4870 Jul 20 j 11:29 18°**х** 43'21 -1°-32'-24 retrograde 7°955'53 -4875 Jan 28 j 20:44 3°503'42 1°49'24 -4870 Jul 19 j 13:02 18° ₹ 50'53 4.01584 AU min. Earth dist. opposition -4875 Jan 29 j 22:51 2°555'19 4.38915 AU -4870 Sep 16 j 15:41 13°**₹**49'26 min. Earth dist. direct -4875 Feb 23 j 13:27 30°RⅡ -4869 Jan 05 j 23:39 0°ಕ 3°**ට**05'45 -4875 Apr 01 j 12:22 28°**Д**01'40 -4869 Jan 19 j 05:37 direct evening set -4875 May 08 j 13:16 0°5 -4869 Feb 01 j 14:57 6°る16'03 -1°-16'-10 -4875 Aug 06 j 16:25 15°55'41 evening set conjunction -4869 Feb 01 j 14:54 6° 중16'01 1°16'27 max. Earth dist. -4875 Aug 17 j 15:22 18°520'59 6.37241 AU minimum elong -4869 Feb 03 j 07:56 6°정40'22 6.01933 AU max. Earth dist. -4875 Aug 19 j 08:38 18°9543'52 1°23'33 -4869 Feb 15 j 03:25 9°る27'58 conjunction morning rise minimum elong -4875 Aug 19 j 08:36 18°543'51 1°23'47 retrograde -4869 Jun 26 j 20:23 29°중39'42 morning rise -4875 Aug 31 j 22:14 21°530'51 min. Earth dist. -4869 Aug 24 j 10:27 24°정44'19 4.04149 AU -4875 Oct 11 j 13:39 $0^{\circ}\Omega$ opposition -4869 Aug 25 j 15:08 24°**궁**34'33 -2°-5'-24 retrograde -4875 Dec 31 j 04:52 8°**Ω**46'29 direct -4869 Oct 22 j 16:38 19°る37'47 -4874 Mar 02 j 00:32 3°**Ω**55'01 2°05'20 -4868 Jan 16 j 09:09 opposition min. Earth dist. -4874 Mar 03 j 06:29 3°Ω45'29 4.34490 AU -4868 Feb 25 j 07:06 evening set 8°≈50'24 -4874 Apr 06 j 14:12 30°Rூ -4874 May 03 j 12:18 28°55'25 -4868 Mar 09 j 22:32 12°≈00'47 -1°-23'-17 direct conjunction -4868 Mar 09 j 22:34 12°≈00'47 1°23'30 $-4874 \text{ May } 30 \text{ i } 11:59 \quad 0^{\circ} \Omega$ minimum elong -4874 Aug 28 i 22:13 15°Ωmax. Earth dist. -4868 Mar 11 j 20:29 12°≈27'31 6.07541 AU evening set -4874 Sep 06 i 17:33 $16^{\circ}\Omega$ 57'30 -4868 Mar 22 i 19:11 15°≈ max. Earth dist. -4874 Sep 17 j 14:36 19°**Ω**24'30 6.30364 AU morning rise -4868 Mar 23 j 15:59 15°≈12'01 -4868 Jun 04 j 17:03 0°**∀** -4874 Sep 19 j 05:42 19°Ω46'36 1°21'40 -4868 Jul 30 j 22:33 4°**)** 44'14 conjunction retrograde -4874 Sep 19 j 05:44 19°Ω46'37 -4868 Sep 25 j 21:31 30°R≈ minimum elong 1°21'51 -4874 Oct 01 j 16:28 $22^{\circ}\Omega$ 35'13 min. Earth dist. -4868 Sep 27 j 07:17 29°≈48'29 4.12217 AU morning rise -4874 Nov 05 j 01:43 0° m opposition -4868 Sep 28 j 09:16 29°≈39'36 -1°-51'-28 retrograde -4873 Feb 02 j 09:28 10° m 28'02 direct -4868 Nov 26 j 01:38 24°≈39'29 -4867 Jan 24 j 21:37 opposition -4873 Apr 04 j 11:28 5°M 35'30 1°44'57 0°**)** min. Earth dist. -4873 Apr 05 j 13:31 5° m 27'13 4.25565 AU evening set -4867 Apr 01 j 20:42 13° **∺** 33'33 -4873 Jun 05 j 05:07 0° m 38'50 direct -4873 Oct 08 j 07:20 18° m 58'00 -4867 Apr 15 j 14:59 16° **★** 40'55 -1°00'-20 evening set conjunction -4867 Apr 15 j 15:03 16° ★40'57 1°00'24 minimum elong -4873 Oct 20 j 20:31 21° m 51'44 0°55'09 -4867 Apr 16 j 22:49 16° **€** 59'00 conjunction max. Earth dist. 6.17381 AU minimum elong -4873 Oct 20 j 20:34 21° m 51'46 0°55'11 morning rise -4867 Apr 29 j 09:27 19° **€**48'06 max. Earth dist. -4873 Oct 19 j 16:24 21° m 35'28 6.20166 AU -4867 Jun 16 j 18:00 $0^{\circ}\Upsilon$ morning rise -4873 Nov 02 j 10:21 24° m 45'58 retrograde -4867 Sep 02 j 04:47 8°**Y**22'35 -4873 Nov 25 j 17:28 0∘**⊽** opposition -4867 Oct 31 j 13:09 3°**Y**20'47 -1°00'-6 -4872 Mar 08 j 08:12 13°**△**31'20 min. Earth dist. -4867 Oct 30 j 23:40 3°**Y**25'21 4.22752 AU retrograde

-4867 Nov 27 j 17:57 30°R €

-4872 May 08 j 11:20 8°**♀**35'57 0°50'17

opposition

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4866 in astronomical counting style is the year 4867 BCE in historical counting style. -4867 Dec 30 j 11:00 28° **∺** 18'02 direct retrograde -4860 Mar 13 j 12:31 18°**2**30'04 -4866 Feb 01 j 13:41 $0^{\circ}\Upsilon$ -4860 May 13 j 14:27 13°**2**34'14 0°40'14 opposition -4866 May 07 j 01:07 16°**Υ**'47'34 min. Earth dist. -4860 May 14 j 00:26 13°**2**31'02 4.13266 AU evening set -4860 Jul 12 j 21:44 direct 8°**£**40'27 -4866 May 20 j 17:18 19°**Y**′49'38 0°-18'-2 -4860 Nov 14 j 00:55 27°**£**25'20 conjunction evening set -4866 May 20 j 17:20 19°**Υ**49'39 -4860 Nov 24 j 23:07 minimum elong 0°17'58 0°M max. Earth dist. -4866 May 21 j 03:27 19°**Υ**55'16 6.27880 AU -4866 Jun 03 j 07:18 22°**Υ**50'32 -4860 Nov 26 j 20:24 morning rise conjunction 0°M26'47 0°02'32 -4866 Jul 07 j 00:20 0°8 minimum elong -4860 Nov 26 j 20:26 0° M26'48 0°02'25 retrograde -4866 Oct 03 j 21:37 10°\(232'26\) behind sun begin -4860 Nov 26 j 12:21 0°M22'03 asc. node -4866 Oct 19 j 08:41 10°**8**08'53 behind sun end -4860 Nov 27 j 04:30 0° M $_{3}1'33$ -4860 Nov 26 j 18:48 opposition -4866 Dec 02 j 11:13 5°**8**34'35 0°07'43 max. Earth dist. 0°M25'53 6.08613 AU min. Earth dist. -4866 Dec 02 j 12:18 5°**8**34'13 4.32278 AU morning rise -4860 Dec 09 j 18:26 3°M29'41 direct -4865 Feb 01 j 14:35 0°**8**30'47 desc. node -4860 Dec 16 j 06:22 5°M00'50 -4865 May 23 j 14:12 15°**8** -4859 Jan 31 j 17:50 15°M evening set -4865 Jun 09 j 14:27 18°**8**39'12 retrograde -4859 Apr 19 j 04:30 23°M 14'51 opposition -4859 Jun 18 j 23:24 18°**M** 15'02 0°-35'-17 conjunction min. Earth dist. -4859 Jun 18 j 14:03 18°ML18'07 4.04897 AU minimum elong -4865 Jun 22 j 23:07 21°**8**35'01 0°28'46 -4859 Jul 16 j 02:45 15°RM max. Earth dist. -4865 Jun 22 j 07:43 21°**8**26'33 6.35733 AU direct -4859 Aug 16 j 22:17 13°M22'07 morning rise -4865 Jul 06 j 04:49 24°**8**29'14 -4859 Sep 17 j 11:45 15°M₊ -4865 Aug 01 i 03:17 $\Pi^{\circ}0$ -4859 Dec 08 i 12:11 0°**∡**¹ retrograde -4865 Nov 03 j 21:39 11°**Д**38'45 evening set -4859 Dec 18 i 23:07 2°**х** 27′27 opposition -4864 Jan 02 j 19:22 6°**Ⅱ**44'29 1°11'01 min. Earth dist. -4864 Jan 03 j 12:19 6°**Ⅲ**38'58 4.37972 AU conjunction -4858 Jan 01 i 02:06 5°**∡**³34'48 0°-46'-43 -4864 Mar 05 j 00:00 1°**Д**41'04 -4858 Jan 01 j 02:03 5°**₹**³34'46 0°46'57 direct minimum elong -4864 Jul 10 j 18:20 19°**Ⅲ**37'44 max. Earth dist. -4858 Jan 02 j 02:53 5°**х** 49'34 evening set 6.02531 AU -4864 Jul 22 j 08:56 22°**Ⅱ**10'23 -4858 Jan 14 j 08:18 8°**∡**¹43'57 max. Earth dist. 6.38748 AU morning rise -4858 May 26 j 10:03 28° ₹ 58'57 retrograde -4864 Jul 23 j 17:43 22°**Ⅲ**28'24 1°06'02 -4858 Jul 25 j 15:42 23°**尽** 55'30 -1°-39'-41 conjunction opposition -4864 Jul 23 j 17:40 22°**Ц**28'22 -4858 Jul 24 j 16:33 24°**尽**03'17 4.01836 AU 1°06'18 min. Earth dist. minimum elong -4864 Aug 05 j 13:39 25°**Ⅲ**17'26 -4858 Sep 21 j 19:24 19°**尽**01'17 direct morning rise -4864 Aug 27 j 14:06 0°95 -4858 Dec 18 j 18:58 ਾਤ -4864 Dec 03 j 21:07 12°520'00 -4857 Jan 24 j 10:29 8°る16'59 retrograde evening set -4863 Feb 02 j 07:17 7°\$28'01 1°53'38 opposition -4863 Feb 03 j 09:48 -4857 Feb 06 j 20:40 11°る27'20 -1°-19'-6 min. Earth dist. 7°€19'31 4.38279 AU conjunction -4857 Feb 06 j 20:37 11°**궁**27'18 1°19'22 direct -4863 Apr 05 j 21:45 2°526'18 minimum elong evening set -4863 Aug 11 j 01:25 20°522'12 max. Earth dist. -4857 Feb 08 j 15:33 11°る52'42 6.02632 AU max. Earth dist. -4863 Aug 21 j 23:31 22°547'28 6.36197 AU morning rise -4857 Feb 20 j 09:58 14°₹39'13 -4857 May 06 j 06:02 0°≈ conjunction -4863 Aug 23 j 16:48 23°510'27 1°24'44 retrograde -4857 Jul 01 j 20:44 4°≈46'19 -4863 Aug 23 j 16:47 23°510'26 -4857 Aug 28 j 07:01 30°R♂ minimum elong -4863 Sep 05 j 05:44 25°557'35 min. Earth dist. -4857 Aug 29 j 09:03 29°**궁**51'08 4.05249 AU morning rise -4863 Sep 23 j 19:38 0°**Ω** -4857 Aug 30 j 14:24 29°る41'09 opposition -4862 Jan 04 j 20:28 $13^{\circ}\Omega$ 18'25 -4857 Oct 27 j 16:27 24°₹43'57 retrograde direct -4857 Dec 25 i 04:39 0°≈ opposition -4862 Mar 06 j 16:04 8°Ω27'00 2°04'39 min. Earth dist. -4862 Mar 07 j 22:37 8°Ω17'17 4.33113 AU evening set -4856 Mar 01 j 11:13 13°≈53'53 direct -4862 May 08 i 02:28 3°**Ω**27'52 -4856 Mar 06 j 05:36 15°≈ -4862 Aug 11 i 22:58 15°Ω-4862 Sep 11 j 04:07 21°**Ω**33'06 -4856 Mar 15 j 03:08 17°≈03'52 -1°-21'-43 evening set conjunction max. Earth dist. -4862 Sep 22 j 01:13 24° Ω 00'44 6.28764 AU -4856 Mar 15 j 03:10 17°≈03'53 1°21'56 minimum elong max. Earth dist. -4856 Mar 16 j 22:38 17°≈29'07 6 08930 AU $-4862 \text{ Sep } 23 \text{ j } 16:08 \quad 24^{\circ} \Omega 22'49 \quad 1^{\circ}19'17$ -4856 Mar 28 j 21:00 20°≈14'37 conjunction morning rise minimum elong $-4862 \text{ Sep } 23 \text{ j } 16:10 \quad 24^{\circ} \Omega 22'50$ 1°19'27 -4856 May 12 j 19:14 0°**∀** morning rise -4862 Oct 06 j 03:12 $27^{\circ}\Omega$ 12'12 retrograde -4856 Aug 04 j 16:39 9°**)** 38'47 4°¥42'36 4.13744 AU -4862 Oct 18 j 15:42 0° m min. Earth dist. -4856 Oct 02 j 02:38 retrograde -4861 Feb 07 j 06:11 15° Mp 12'47 opposition -4856 Oct 03 j 02:32 4°**)** 34'26 -1°-46'-6 -4861 Apr 09 j 09:09 10° m 19'55 1°39'00 -4856 Nov 14 j 21:11 30°R≈ opposition -4861 Apr 10 j 08:38 10° Mp 12'26 4.23855 AU -4856 Nov 30 j 23:19 29°≈33'50 min. Earth dist. direct -4861 Jun 09 j 21:57 -4856 Dec 17 j 03:46 direct 5° m 23'42 0°**∀** -4861 Oct 12 j 21:58 23° m 46'32 -4855 Apr 06 j 20:26 18° **¥** 24'16 evening set evening set conjunction -4861 Oct 25 j 11:51 26° m/41'14 0°49'32 conjunction -4855 Apr 20 j 14:55 21° **★** 31'00 0°-55'-14 minimum elong -4861 Oct 25 j 11:54 26° Mp 41'16 0°49'33 minimum elong -4855 Apr 20 j 14:59 21° **∺**31'03 0°55'19 max. Earth dist. -4861 Oct 24 j 12:19 26° Mp 27'35 6.18520 AU max. Earth dist. -4855 Apr 21 j 21:05 21° **★**48'05 6.18949 AU -4861 Nov 07 j 02:20 29° M 36'30 -4855 May 04 j 08:56 24° **€** 37'21 morning rise morning rise

-4855 May 28 j 21:34

-4861 Nov 08 j 19:08

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4855 in astronomical counting style is the year 4856 BCE in historical counting style. -4855 Sep 06 j 16:32 13°**Υ**03'42 direct -4849 Jun 14 j 17:11 10° m 08'12 retrograde opposition -4855 Nov 05 j 01:23 8°**Υ**'02'27 0°-51'-6 evening set -4849 Oct 17 j 12:11 28° m 33'14 -4855 Nov 04 j 13:37 8°**Υ**'06'26 4.24212 AU -4849 Oct 23 j 18:00 min. Earth dist. 0∘⊽ 2°Y59'30 -4849 Oct 29 j 05:17 -4854 Jan 04 j 02:30 max. Earth dist. 1°**2**16'20 6.17269 AU direct -4854 May 11 j 19:36 21° **Y**25'46 evening set 1°**≏**28'43 -4849 Oct 30 j 02:35 conjunction 0°43'40 -4854 May 25 j 10:51 24°**Υ**27'00 0°-11'-27 -4849 Oct 30 j 02:38 conjunction minimum elong 1°**£**28'45 0°43'41 -4854 May 25 j 10:52 24°**Υ**27'00 -4849 Nov 11 j 18:01 minimum elong 0°11'22 morning rise 4°**£**24'55 23°**₽**25'02 behind sun begin -4854 May 25 j 04:56 24°**Υ**23'44 retrograde -4848 Mar 18 j 13:04 behind sun end -4854 May 25 j 16:48 24°**Y**30'17 opposition -4848 May 18 j 15:53 18°**♀**28'39 0°30'05 max. Earth dist. -4854 May 25 j 15:42 24°**Υ**29'41 6.29122 AU min. Earth dist. -4848 May 18 j 22:06 18°**≏**26'38 4.12196 AU -4854 Jun 08 j 00:04 27°**Υ**27'00 -4848 Jul 17 j 17:52 morning rise direct 13°**≏**35'06 -4854 Jun 19 j 16:23 0° 8 desc. node -4848 Oct 25 j 22:44 26°**♀**53'11 asc. node -4854 Aug 29 j 14:01 12°**8**36'39 -4848 Nov 08 j 16:28 0°M -4854 Oct 02 j 09:58 15°**8** evening set -4848 Nov 18 j 19:39 2°M21'46 retrograde -4854 Oct 08 j 06:52 15°**8**03'25 -4854 Oct 14 j 03:00 15°R8 conjunction -4848 Dec 01 j 16:07 5°M23'58 0°-4'-44 opposition -4854 Dec 06 j 20:48 10°806'04 0°17'16 minimum elong -4848 Dec 01 j 16:07 5°M23′58 0°04'53 min. Earth dist. -4854 Dec 07 j 01:03 10°**8**04'39 4.33218 AU behind sun begin -4848 Dec 01 j 08:14 5°M19'20 direct -4853 Feb 06 j 04:47 5°**8**02'11 behind sun end -4848 Dec 02 j 00:00 5°M28'37 -4853 May 05 j 21:50 15°**8** max. Earth dist. -4848 Dec 01 j 19:05 5°M25'41 6.07822 AU evening set -4853 Jun 14 j 04:08 23°**8**08'50 morning rise -4848 Dec 14 i 15:05 8°M27'40 -4847 Jan 12 j 07:11 15°M conjunction -4853 Jun 27 j 11:46 26°803'57 0°34'38 retrograde -4847 Apr 24 j 09:12 28°M 17'18 -4853 Jun 27 j 11:43 26°803'56 0°34'50 opposition -4847 Jun 24 j 02:10 23°M 16'54 0°-45'-35 minimum elong -4853 Jun 26 j 18:34 25°**8**54'30 min. Earth dist. -4847 Jun 23 j 15:23 23°M20'28 max. Earth dist. 6.36300 AU 4 04452 AU -4853 Jul 10 j 15:57 28°857'22 -4847 Aug 21 j 22:45 18° M23'55 morning rise direct -4853 Jul 15 j 11:08 0°**Ⅱ** -4847 Nov 21 j 01:54 0°×7 -4853 Nov 08 j 04:30 16°**Д**04'56 -4847 Dec 23 j 22:35 7°**∡**³30′06 retrograde evening set -4852 Jan 07 j 04:41 11°**Ц**11'04 1°18'33 opposition -4852 Jan 07 j 22:38 11°**Д**05'14 4.38159 AU -4846 Jan 06 j 02:30 10° **₹** 37'52 min. Earth dist. conjunction 0°-52'-36 -4846 Jan $\,$ 06 j 02:26 $\,$ $10^{\circ}\mbox{\sc Z}^{\hspace{-0.1cm} \prime} 37'50 \,$ $\,$ 0°52'50 $\,$ -4852 Mar 09 j 10:31 6°**Ⅲ**07'50 minimum elong direct -4846 Jan 07 j 06:03 10° ₹ 54'16 6.02455 AU -4852 Jul 15 j 05:04 24°**Ⅲ**04'27 max. Earth dist. evening set -4852 Jul 26 j 15:40 26°**Д**35'09 -4846 Jan 19 j 09:45 13°**х** 47'28 max. Earth dist. 6.38525 AU morning rise -4846 Apr 09 j 10:48 0°ಕ -4852 Jul 28 j 03:04 26°**Ⅲ**54'38 1°09'58 conjunction retrograde -4846 May 31 j 11:25 4°る02'32 -4852 Jul 28 j 03:01 26°**I** 54'36 -4846 Jul 23 j 00:53 30°R ✓ minimum elong 1°10'13 morning rise -4852 Aug 09 j 21:58 29°**Ⅲ**43'18 opposition -4846 Jul 30 j 16:04 28°**尽** 58'46 -1°-45'-59 -4852 Aug 11 j 04:31 min. Earth dist. -4846 Jul 29 j 15:14 29° ₹07'07 4.02170 AU 0 \circ \odot retrograde -4852 Dec 08 j 08:59 16°547'36 direct -4846 Sep 26 j 17:57 24°**尽**04'14 -4851 Feb 06 j 19:31 11°555'50 1°57'17 -4846 Nov 27 j 18:48 0°る opposition min. Earth dist. -4851 Feb 07 j 23:51 11°5546'45 4.37684 AU -4845 Jan 29 j 12:35 13°る19'23 evening set -4851 Apr 10 j 11:16 6°554'26 direct -4851 Aug 15 j 10:56 24°551'37 -4845 Feb 11 j 23:32 16°**♂**29'45 -1°-21'-21 evening set conjunction max. Earth dist. -4845 Feb 11 j 23:30 16°**♂**29'44 1°21'36 -4851 Aug 26 j 08:28 27°516'57 6.35274 AU minimum elong max. Earth dist. -4845 Feb 13 j 18:00 16°る54'50 6.03311 AU -4851 Aug 28 i 01:40 27°\$39'55 1°25'29 conjunction morning rise -4845 Feb 25 i 13:38 19°る41'39 minimum elong -4851 Aug 28 i 01:39 27°539'55 1°25'43 -4845 Apr 13 j 08:41 0°≈ -4851 Sep 07 i 13:02 $0^{\circ}\Omega$ retrograde -4845 Jul 06 i 17:55 9°≈44'20 -4851 Sep 09 j 13:59 0°Ω27'10 -4845 Sep 03 j 05:47 4°≈48'52 4.06200 AU morning rise min. Earth dist. -4851 Nov 26 j 11:45 15°Ω-4845 Sep 04 j 10:21 4°≈39'07 -2°-6'-7 opposition -4850 Jan 09 j 10:45 $17^{\circ}\Omega 52'49$ -4845 Oct 19 j 05:09 30°Rる retrograde -4850 Feb 23 j 07:08 15°**RΩ** -4845 Nov 01 j 14:46 29°**⋜**41'26 direct opposition -4850 Mar 11 j 08:40 $13^{\circ}\Omega$ 01'16 $2^{\circ}03'16$ -4845 Nov 15 j 00:58 0°22 min. Earth dist. -4850 Mar 12 j 13:32 12° Ω 52'05 4.31949 AU -4844 Feb 18 j 16:17 15°≈ direct -4850 May 12 j 15:59 8°**Ω**02'35 -4844 Mar 06 j 12:20 18°≈49'27 evening set -4850 Jul 23 j 10:47 15°**Ω** -4850 Sep 15 j 15:04 26° **Ω**09'55 -4844 Mar 20 j 05:02 21°≈59'14 -1°-19'-37 evening set conjunction -4844 Mar 20 j 05:05 21°≈59'16 max. Earth dist. -4850 Sep 26 j 14:44 28° **Ω**39'28 6.27476 AU minimum elong 1°19'48 max. Earth dist. -4844 Mar 22 j 00:22 22°≈24'18 6.10084 AU conjunction -4850 Sep 28 j 03:01 29° Ω 00'07 1°16'27 morning rise -4844 Apr 02 j 23:06 25°≈09'35 minimum elong -4850 Sep 28 j 03:03 29° Ω 00'09 1°16'36 -4844 Apr 24 j 11:50 0°**∀** -4850 Oct 02 j 12:12 0° m retrograde -4844 Aug 09 j 08:58 14° **€** 26'46 morning rise -4850 Oct 10 j 14:10 1° Mp 50'06 opposition -4844 Oct 07 j 17:36 9°**∺**22'49 -1°-40'-9 retrograde -4849 Feb 12 j 04:02 19° m 57'12 min. Earth dist. -4844 Oct 06 j 19:14 9°**)** 30′27 4.14977 AU -4849 Apr 14 j 06:48 15° m 04'01 -4844 Dec 05 j 17:04 4°**)**€21'54 opposition direct -4849 Apr 15 j 05:17 14° m 56'51 4.22520 AU -4843 Apr 11 j 18:30 23° **米** 09'52 min. Earth dist. evening set

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4843 in astronomical counting style is the year 4844 BCE in historical counting style. -4843 Apr 25 j 12:46 26°**)** 16'04 0°-49'-53 minimum elong -4838 Oct 02 j 12:56 3° m 35'57 1°13'17 conjunction -4843 Apr 25 j 12:50 26° ★ 16'06 -4838 Oct 15 j 00:19 minimum elong 0°49'56 morning rise 6° m 26'32 -4843 Apr 26 j 14:22 26° + 30'31 -4837 Feb 16 j 22:54 24° m 39'58 max. Earth dist. 6.20170 AU retrograde -4843 May 09 j 06:39 29°**米**21'49 -4837 Apr 19 j 03:23 19° Mp 46'23 1°25'19 morning rise opposition $0^{\circ}\Upsilon$ -4843 May 12 j 02:58 -4837 Apr 19 j 23:12 min. Earth dist. 19° Mp 40'03 4.21208 AU -4843 Sep 11 j 03:20 17°**Υ**41'32 -4837 Jun 19 j 08:54 retrograde direct 14° m 50'55 -4843 Nov 09 j 12:38 12°**Υ**40'49 -4837 Oct 07 j 14:02 opposition 0°-41'-56 0∘Ω -4843 Nov 09 j 03:09 12°**Υ**44'01 -4837 Oct 22 j 01:20 min. Earth dist. 4.25318 AU evening set 3°**₽**18'19 -4842 Jan 08 j 17:44 7°**Ƴ**37'40 direct evening set -4842 May 16 j 13:17 26°**Υ**01'59 conjunction -4837 Nov 03 j 16:21 6°**₽**14'38 0°37'33 minimum elong -4837 Nov 03 j 16:24 6°**₽**14'39 0°37'32 -4842 May 30 j 03:57 29°**Υ**02'34 0°-4'-53 conjunction max. Earth dist. -4837 Nov 02 j 22:09 6°**£**04'01 6.15943 AU -4842 May 30 j 03:56 29°**Υ**02'34 minimum elong 0°04'47 morning rise -4837 Nov 16 j 08:37 9°**£**11'47 behind sun begin -4842 May 29 j 19:52 28°**Y**58'07 retrograde -4836 Mar 23 j 15:44 28° **2**19'06 behind sun end -4842 May 30 j 11:59 29°**Y**07′00 opposition -4836 May 23 j 16:31 23°**₽**22'08 0°19'44 max. Earth dist. -4842 May 30 j 06:46 29°**Υ**′04'06 6.30061 AU min. Earth dist. -4836 May 23 j 21:20 23°**♀**20'35 4.10939 AU -4842 Jun 03 j 11:34 0° 8 direct -4836 Jul 22 j 15:03 18°**2**28'43 morning rise -4842 Jun 12 j 15:59 2°801'45 desc. node -4836 Sep 04 j 19:35 21°**2**31'37 asc. node -4842 Jul 09 j 20:01 7°**8**50'23 -4836 Oct 22 j 09:33 0°M -4842 Aug 18 j 05:35 15°8 evening set -4836 Nov 23 j 14:24 7°M18'17 retrograde -4842 Oct 12 j 15:21 19°\begin{align*} 33'47 -4842 Dec 08 i 08:49 15°R8 conjunction -4836 Dec 06 i 11:54 10°M21'23 0°-11'-51 opposition -4842 Dec 11 i 06:23 14°\(\delta\)37'02 0°26'39 minimum elong -4836 Dec 06 j 11:52 10°M21'22 0°12'01 min. Earth dist. -4842 Dec 11 j 12:11 14°\(\mathbf{2}\)35'07 4.33930 AU behind sun begin -4836 Dec 06 j 06:15 10°ML18'03 direct -4841 Feb 10 j 17:22 9°**8**33'15 behind sun end -4836 Dec 06 j 17:30 10°M24'41 -4841 Apr 14 j 19:42 15°8 max. Earth dist. -4836 Dec 06 j 17:55 10°M24'56 6.06751 AU -4841 Jun 18 j 17:48 27° **8**38'45 -4836 Dec 19 j 12:03 13°M26'03 morning rise evening set -4841 Jun 29 j 11:42 -4836 Dec 26 i 04:23 15°M 0°Π -4841 Jul 01 j 03:00 0°**Ⅲ**21'35 6.36723 AU -4835 Mar 13 j 03:27 max Earth dist 0°×7 -4835 Apr 29 j 12:40 retrograde 3°**х** 21′07 -4841 Jul 02 j 00:03 0°**Д**33'09 0°40'28 -4835 Jun 16 j 08:45 30°RM conjunction minimum elong -4841 Jul 02 j 00:00 0°Ⅲ33'08 0°40'42 -4835 Jun 29 j 04:36 28°ML20'12 0°-55'-37 opposition -4841 Jul 15 j 03:06 $-4835 \; \text{Jun} \quad 28 \; \text{j} \; 15{:}12 \quad 28^{\circ} \text{ML} 24^{\prime} 38 \quad 4.03693 \; \text{AU}$ 3°**Ⅲ**25'54 min. Earth dist. morning rise -4841 Nov 12 j 13:56 20°**Ⅲ**32'09 -4835 Aug 26 j 20:39 23°M27'06 retrograde direct -4840 Jan 11 j 15:01 15°**Ⅲ**38'39 1°25'38 -4835 Oct 31 j 14:10 0° **₹** opposition -4840 Jan 12 j 10:56 15°**耳**32'11 4.38293 AU -4835 Dec 28 j 23:20 12°**尽** 35'42 min. Earth dist. evening set -4840 Mar 13 j 23:34 10°**Ⅲ**35'37 direct -4840 Jul 19 j 15:33 28°**Д**31'59 conjunction -4834 Jan 11 j 04:14 15° ₹ 44'05 0°-58'-8 evening set -4840 Jul 26 j 08:04 0ಂತಾ minimum elong -4834 Jan 11 j 04:10 15° ₹ 44'03 0°58'24 max. Earth dist. -4840 Jul 31 j 01:17 1°902'21 6.38346 AU max. Earth dist. -4834 Jan 12 j 09:30 16°**尽** 01'32 6.02046 AU morning rise -4834 Jan 24 j 12:36 18°**尽** 54'18 -4840 Aug 01 j 12:30 1°521'46 1°13'29 -4834 Mar 15 j 20:23 0°궁 conjunction -4840 Aug 01 j 12:27 1°9521'44 -4834 Jun 05 j 15:01 9°る10'44 minimum elong 1°13'44 retrograde -4840 Aug 14 j 06:05 4°ഇ10'00 -4834 Aug 04 j 17:47 4°る06'34 -1°-51'-36 morning rise opposition -4840 Dec 12 j 18:34 21°515'53 min. Earth dist. -4834 Aug 03 j 16:04 4°る15'15 4.02162 AU retrograde -4839 Feb 11 i 07:57 16°\$24'13 2°00'14 opposition -4834 Sep 10 i 01:09 30°R ✓ min. Earth dist. -4839 Feb 12 j 11:46 16°515'20 4.37220 AU direct -4834 Oct 01 j 19:16 29° ₹11'35 direct -4839 Apr 14 i 23:01 11°523'12 -4834 Oct 23 i 13:34 0°ಕ evening set -4839 Aug 19 j 20:12 29°520'59 evening set -4833 Feb 03 j 16:56 18°る27'31 -4839 Aug 22 j 18:30 $\Omega^{\circ}\Omega$ max. Earth dist. -4839 Aug 30 j 16:29 1°**Ω**46′00 conjunction -4833 Feb 17 i 05:00 21° ₹38'09 -1°-23'-1 6.34535 AU minimum elong -4833 Feb 17 j 04:59 21°る38'08 1°23'16 -4839 Sep 01 j 10:04 2°Ω09'14 1°25'43 -4833 Feb 19 j 01:47 22°る04'32 6.03697 AU conjunction max. Earth dist. morning rise minimum elong -4839 Sep 01 j 10:04 2°Ω09'14 1°25'57 -4833 Mar 02 j 19:47 24°る50'09 morning rise -4839 Sep 13 j 21:58 4°**Ω**56'35 -4833 Mar 25 j 09:34 -4839 Nov 01 j 14:43 15°**Ω** retrograde -4833 Jul 11 j 18:50 14°≈49'08 retrograde -4838 Jan 14 j 02:33 22°**\O**26'27 min. Earth dist. -4833 Sep 08 j 04:42 9°≈53'30 4.06946 AU -4838 Mar 16 j 00:57 $17^{\circ}\Omega$ 34'45 $2^{\circ}01'06$ -4833 Sep 09 j 08:41 9°**≈**43'56 -2°-5'-6 opposition opposition -4838 Mar 17 j 06:10 $17^{\circ}\Omega$ 25'28 4.30953 AU -4833 Nov 06 j 14:10 4°≈45'48 min. Earth dist. direct -4832 Jan 31 j 04:41 -4838 Apr 06 j 09:35 15°RΩ 15°**≈** -4832 Mar 11 j 16:59 23°≈52'34 direct -4838 May 17 j 07:31 12°Ω36'24 evening set -4838 Jun 26 j 18:00 15°**Ω** -4838 Sep 16 j 16:41 0° m conjunction -4832 Mar 25 j 10:05 27°≈02'07 -1°-16'-52 evening set -4838 Sep 20 j 00:49 0° m 45'13 minimum elong -4832 Mar 25 j 10:08 27°≈02'09 1°17'02 max. Earth dist. -4838 Oct 01 j 02:02 3° Mp 16'03 6.26291 AU max. Earth dist. -4832 Mar 27 j 02:56 27°≈25'41 6.11119 AU -4832 Apr 07 j 07:23 0°**)** -4838 Oct 02 j 12:53 3° M 35'56 1°13'10 -4832 Apr 08 j 04:39 0°**)** 12′10 conjunction morning rise

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 7 Attention, astronomical year style is used: The year -4832 in astronomical counting style is the year 4833 BCE in historical counting style.									
	-4832 Aug 14 j 02:15		in astronomical col						
retrograde			10 221 22	evening set	-4826 Sep 24 j 06:54	5° Mp 10'11	(2524(AII		
opposition min. Earth dist.	-4832 Oct 12 j 11:23 -4832 Oct 11 j 13:54	14° 	4.16202 AU	max. Earth dist.	-4826 Oct 05 j 08:17	7° Mp41'30	6.25246 AU		
direct	-4832 Dec 10 j 14:06	9°) 17'26	4.10202 AU	conjunction	-4826 Oct 06 j 18:55	8° m)01'19	1°09'33		
evening set	-4831 Apr 16 j 19:37	28°) 02'48		minimum elong	-4826 Oct 06 j 18:58	8° Mp 01'21	1°09'39		
	-4831 Apr 25 j 12:26	0°Υ		morning rise	-4826 Oct 19 j 06:46	10° m/ 52'32			
	1 3			retrograde	-4825 Feb 21 j 16:27	29° m 12'08			
conjunction	-4831 Apr 30 j 13:51	1° Y 08'23	0°-44'-2	opposition	-4825 Apr 23 j 19:49	24° Mp 18'14	1°17'54		
minimum elong	-4831 Apr 30 j 13:55	1° Y ′08′25	0°44'04	min. Earth dist.	-4825 Apr 24 j 15:28	24° Mp 11'57	4.19875 AU		
max. Earth dist.	-4831 May 01 j 13:52	1° Y 21'54	6.21540 AU	direct	-4825 Jun 23 j 22:23	19° m 23'01			
morning rise	-4831 May 14 j 07:09	4° Υ 13'20			-4825 Sep 20 j 21:10	0∘ ⊽			
retrograde	-4831 Sep 15 j 17:31	22° Y 25'37		evening set	-4825 Oct 26 j 10:58	7° ≙ 53'24			
opposition	-4831 Nov 14 j 02:40	17° Y 25'29	0°-32'-17	max. Earth dist.	-4825 Nov 07 j 10:42	10° £ 41'16	6.14462 AU		
min. Earth dist.	-4831 Nov 13 j 19:04	17° Υ 28'03	4.26719 AU		402531 00:02.50	100 0 50140	0021125		
direct	-4830 Jan 13 j 12:42	12° Υ 22'14		conjunction	-4825 Nov 08 j 02:50		0°31'25		
asc. node	-4830 May 18 j 20:07 -4830 May 18 j 02:16	0° と 09'45 0°と		minimum elong morning rise	-4825 Nov 08 j 02:52 -4825 Nov 20 j 20:02	10° £ 50'43 13° £ 48'56	0°31'23		
evening set	-4830 May 21 j 09:00	0° 8 43'07		morning rise	-4824 Feb 12 j 02:17	0°M			
evening set	-4030 May 21 J 07.00	0 043 07		retrograde	-4824 Mar 28 j 13:21	3°ML04'08			
conjunction	-4830 Jun 03 j 22:33	3° 8 42'42	0°01'58	renograde	-4824 May 13 j 14:55				
minimum elong	-4830 Jun 03 j 22:34	3° 8 42'43	0°02'05	opposition	-4824 May 28 j 13:18	28° ♀ 06'46	0°09'36		
behind sun begin	-4830 Jun 03 j 14:19	3° 8 38'10		min. Earth dist.	-4824 May 28 j 15:59	28° ♀ 05'53	4.09429 AU		
behind sun end	-4830 Jun 04 j 06:50	3° 8 47'15		desc. node	-4824 Jul 17 j 19:21	23° ≏ 22'21			
max. Earth dist.	-4830 Jun 03 j 22:12	3° 8 42'31	6.31412 AU	direct	-4824 Jul 27 j 05:57	23° ≙ 13'31			
morning rise	-4830 Jun 17 j 09:35	6° 8 40'54			-4824 Oct 02 j 23:44	0°M₊			
	-4830 Jul 27 j 06:27	15° 8		evening set	-4824 Nov 28 j 06:45	12°ML07'32			
retrograde	-4830 Oct 17 j 00:20	24° 8 07'03			-4824 Dec 10 j 09:32	15° M ₊			
opposition	-4830 Dec 15 j 17:35	19° 8 10'45							
min. Earth dist.	-4830 Dec 16 j 00:50	19° 8 08'22	4.35159 AU	conjunction	-4824 Dec 11 j 05:13		0°-18'-40		
T.	-4829 Jan 22 j 09:11	15°R 8		minimum elong	-4824 Dec 11 j 05:11		0°18'50		
direct	-4829 Feb 15 j 08:38	14° と 07'00 15° と		max. Earth dist.	-4824 Dec 11 j 13:12	15°116126 18°116127	6.05349 AU		
	-4829 Mar 11 j 14:56 -4829 Jun 13 j 08:18	13 O		morning rise	-4824 Dec 24 j 06:39 -4823 Feb 15 j 22:38	18 IIG1/33 0° ∡ 7			
evening set	-4829 Jun 23 j 07:41	2° ∏ 09'13		retrograde	-4823 May 04 j 15:00	8° ∡ 19'42			
evening set	-402) Juli 25 j 07.41	2 110713		opposition	-4823 Jul 04 j 04:46	3°×1742	-1°-4'-58		
conjunction	-4829 Jul 06 j 12:36	5° Ⅱ 02'37	0°46'03	min. Earth dist.	-4823 Jul 03 j 13:37	3° × ⁷ 23'19	4.02540 AU		
minimum elong	-4829 Jul 06 j 12:32	5° Ⅱ 02'35	0°46'17		-4823 Jul 31 j 15:30				
max. Earth dist.	-4829 Jul 05 j 14:48	4° ∏ 50'40	6.37749 AU	direct	-4823 Aug 31 j 17:46	28°M25'04			
morning rise	-4829 Jul 19 j 14:01	7° Ⅱ 54'19			-4823 Oct 01 j 14:41	0° ∡ ¹			
retrograde	-4829 Nov 16 j 21:00	24° ∏ 57'12		evening set	-4822 Jan 02 j 23:07	17° ∡ ³38′00			
opposition	-4828 Jan 16 j 00:44	20° Ⅱ 04'04	1°32'05						
min. Earth dist.	-4828 Jan 16 j 21:37	19° ∏ 57'19	4.39056 AU	conjunction	-4822 Jan 16 j 05:18				
direct	-4828 Mar 18 j 11:59	15° Ⅱ 01'17		minimum elong	-4822 Jan 16 j 05:14		1°03'20		
. ,	-4828 Jul 10 j 12:00	0°99		max. Earth dist.	-4822 Jan 17 j 14:32		6.01261 AU		
evening set max. Earth dist.	-4828 Jul 24 j 00:29	2°955'07	6.38763 AU	morning rise	-4822 Jan 29 j 14:42 -4822 Feb 24 j 18:44	23°X'38'19			
max. Earm dist.	-4828 Aug 04 j 06:05	3 2023 10	0.38/03 AU	retrograde	-4822 Jun 10 j 19:30				
conjunction	-4828 Aug 05 j 20:00	5° © 44'10	1°16'29	opposition	-4822 Aug 09 j 18:27	9° る 12'57	-1°-56'-13		
minimum elong	-4828 Aug 05 j 19:57	5°5544'09	1°16'44	min. Earth dist.	-4822 Aug 08 j 16:00	9° ට 21'54	4.01859 AU		
morning rise	-4828 Aug 18 j 12:36	8° © 31'47		direct	-4822 Oct 06 j 18:28	4° る 17'39	-		
retrograde	-4828 Dec 17 j 03:24	25° © 37'30		evening set	-4821 Feb 08 j 21:53				
opposition	-4827 Feb 15 j 18:21	20°\$\frac{95}{45}'56	2°02'19						
min. Earth dist.	-4827 Feb 16 j 23:31	20° © 36'37	4.37263 AU	conjunction	-4821 Feb 22 j 10:47	26° පි 46'39	-1°-23'-58		
direct	-4827 Apr 19 j 10:35	15° © 45'10		minimum elong	-4821 Feb 22 j 10:47	26° ප් 46'39	1°24'13		
	-4827 Aug 07 j 03:16	$0 {\circ} \Omega$		max. Earth dist.	-4821 Feb 24 j 07:27		6.03885 AU		
evening set	-4827 Aug 24 j 01:53	3° Ω 41'52	C 2 44 22	morning rise	-4821 Mar 08 j 02:36				
max. Earth dist.	-4827 Sep 03 j 22:29	6° Ω 07'10	6.34192 AU		-4821 Mar 08 j 04:25	0° ≈			
agniumation	1927 Cam 05: 15:16	60 020100	1025125	ratrograda	-4821 May 20 j 09:14				
conjunction minimum elong	-4827 Sep 05 j 15:16		1°25'25 1°25'38	retrograde	-4821 Jul 16 j 17:06				
minimum elong morning rise	-4827 Sep 05 j 15:17 -4827 Sep 18 j 02:33	9° Ω 17'16	1 43 36	min. Earth dist.	-4821 Sep 12 j 23:34 -4821 Sep 13 j 01:54		4.07609 AU		
morning 1150	-4827 Oct 14 j 11:59	15° Ω		opposition	-4821 Sep 13 j 01:34 -4821 Sep 14 j 06:42		-2°-3'-2		
retrograde	-4826 Jan 18 j 12:34	26° Ω 50'17		direct	-4821 Nov 11 j 13:10	9°≈50'44			
opposition	-4826 Mar 20 j 13:31	21° Ω 58'28	1°58'14		-4820 Jan 08 j 16:35				
min. Earth dist.	-4826 Mar 21 j 17:58			evening set	-4820 Mar 16 j 21:45				
direct	-4826 May 21 j 17:24	17° ん 00'31			-4820 Mar 21 j 12:46	0° ₩			
	-4826 Aug 31 i 21:47	∩° mh							

-4826 Aug 31 j 21:47 0° Mp

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4820 in astronomical counting style is the year 4821 BCE in historical counting style. -4820 Mar 30 i 15:30 2°\;\;\05'46 -1°-13'-30 retrograde -4814 Jan 23 i 05:56 1° m 25'35 conjunction -4820 Mar 30 j 15:34 2°**₩**05'48 1°13'39 -4814 Feb 23 j 01:00 30°RΩ minimum elong max. Earth dist. -4820 Apr 01 j 08:03 2°**¥**29′05 opposition -4814 Mar 25 j 06:51 $26^{\circ}\Omega$ 33'32 $1^{\circ}54'40$ 6.12209 AU -4820 Apr 13 j 10:10 -4814 Mar 26 j 11:06 26°**Ω**24'33 5°**升**15′22 min. Earth dist. 4.28845 AU morning rise -4814 May 26 j 07:57 21° Ω 35'54 -4820 Aug 18 j 21:18 24° **∺** 18'06 retrograde direct -4820 Oct 16 j 09:25 19° **€**21'32 4.17559 AU -4814 Aug 13 j 12:41 min. Earth dist. 0° m -4814 Sep 28 j 17:45 opposition -4820 Oct 17 j 05:08 19°**∺** 14'49 -1°-25'-52 evening set 9° Mp 48'26 max. Earth dist. -4814 Oct 09 j 22:17 12° M 22'02 direct -4820 Dec 15 j 12:37 14°**₩** 13'08 6.23658 AU $0^{\circ}\Upsilon$ -4819 Apr 08 j 15:14 evening set -4819 Apr 21 j 20:12 2°Y55'01 conjunction -4814 Oct 11 j 06:13 12° Mp 40'22 1°05'21 -4814 Oct 11 j 06:17 12° m 40'24 minimum elong 1°05'27 -4819 May 05 j 14:07 5°Υ59'51 0°-37'-53 -4814 Oct 23 j 18:28 15° Mp 32'27 conjunction morning rise -4819 May 05 j 14:10 -4813 Jan 05 j 04:26 minimum elong 5°**Y**59'53 0°37'53 0∘**⊽** max. Earth dist. -4819 May 06 j 11:37 6°**Y**11'55 6.23037 AU retrograde -4813 Feb 26 j 15:20 4°**£**00'03 morning rise -4819 May 19 j 06:51 9°**Υ**03'54 -4813 Apr 21 j 16:05 30°R, Mp retrograde -4819 Sep 20 j 04:38 27°**Υ**08'16 opposition -4813 Apr 28 j 18:46 29° Mp 05'44 opposition -4819 Nov 18 j 15:44 22°**Υ**08'35 0°-22'-28 min. Earth dist. -4813 Apr 29 j 12:18 29° M 00'08 4.18195 AU min. Earth dist. -4819 Nov 18 j 09:14 22°**Υ**10'46 4.28189 AU direct -4813 Jun 28 j 16:07 24° M 10'55 direct -4818 Jan 18 j 05:51 17°**Y**05′05 -4813 Aug 31 j 00:36 asc. node -4818 Mar 27 j 11:45 23°**Υ**28'34 evening set -4813 Oct 31 j 03:09 12°**-**45′08 -4818 May 01 j 00:10 0°8 evening set -4818 May 26 i 03:37 5°**8**22'20 conjunction -4813 Nov 12 j 19:42 15°**£**43'27 0°24'42 minimum elong -4813 Nov 12 i 19:44 15°**Ω**43'28 0°24'38 conjunction -4818 Jun 08 i 16:06 8°**8**20'56 0°08'40 max. Earth dist. -4813 Nov 12 j 05:53 15°**2**35'20 6.12849 AU minimum elong -4818 Jun 08 i 16:06 8°**8**20'55 0°08'49 morning rise -4813 Nov 25 j 14:05 18°**£**42'53 -4818 Jun 08 j 09:03 8°817'03 -4812 Jan 16 j 21:44 behind sun begin oom. -4818 Jun 08 j 23:08 8°**8**24'48 -4812 Apr 02 j 18:12 8°M06'20 behind sun end retrograde -4818 Jun 08 j 12:36 8°**8**19'01 -4812 May 27 j 04:07 3°M59'14 max. Earth dist. 6.32723 AU desc. node -4818 Jun 22 j 01:49 11°**8**18'02 -4812 Jun 02 j 17:03 3°M08'22 0°-1'-14 morning rise opposition -4818 Jul 09 j 05:13 15°**8** min. Earth dist. -4812 Jun 02 j 16:57 3°ML08'24 4.08030 AU -4818 Oct 21 j 10:03 28°**8**38'44 -4812 Jun 28 j 23:04 30°R Ω retrograde -4818 Dec 20 j 04:01 23°842'56 0°45'01 -4812 Aug 01 j 05:27 28°**♀**15'16 direct opposition -4812 Sep 03 j 03:19 0°M min. Earth dist. -4818 Dec 20 j 13:50 23°**\dagger**39'43 4.36190 AU -4817 Feb 19 j 23:35 18°**8**39'12 -4812 Nov 23 j 19:20 15°M direct -4817 May 27 j 03:51 $0^{\circ}\Pi$ -4812 Dec 03 j 05:47 17° ML 12'57 evening set -4817 Jun 27 j 20:40 evening set 6°**Ⅲ**38'55 9°**Ⅱ**17'34 -4817 Jul 09 j 22:48 -4812 Dec 16 j 05:28 20°M 18'05 0°-25'-46 max. Earth dist. 6.38382 AU conjunction minimum elong -4812 Dec 16 j 05:26 20°M 18'04 0°25'58 conjunction -4817 Jul 11 j 00:12 9°**耳**31'29 0°51'25 max. Earth dist. -4812 Dec 16 j 18:47 20°M26'01 6.04326 AU minimum elong -4817 Jul 11 j 00:08 9°**Ⅱ**31'27 0°51'39 morning rise -4812 Dec 29 j 07:58 23°M24'53 morning rise -4817 Jul 24 j 00:20 12°**Ⅲ**22'22 -4811 Jan 27 j 01:08 0°**∡**7 retrograde -4817 Nov 21 j 05:29 29°**Д**23'36 -4811 May 09 j 23:31 13° **₹** 31'49 retrograde -4816 Jan 20 j 11:07 24° ДЗ0'44 1°38'09 -4811 Jul 09 j 10:14 8°**尽** 29'57 -1°-14'-20 opposition opposition min. Earth dist. -4816 Jan 21 j 09:29 24°**Д**23'30 4.39273 AU min. Earth dist. -4811 Jul 08 j 17:04 8°**₹**35'40 4.02049 AU -4816 Mar 22 j 23:43 19°**Д**28'05 -4811 Sep 05 j 20:23 3° ₹36'36 direct direct -4810 Jan 08 i 03:56 22° ₹ 51'03 -4816 Jun 23 i 06:32 evening set evening set -4816 Jul 28 i 09:54 7°9521'17 -4810 Jan 21 j 10:57 26° ₹00'41 -1°-7'-48 max. Earth dist. -4816 Aug 08 j 14:14 9°9548'52 6.38530 AU conjunction minimum elong -4810 Jan 21 i 10:53 26° ₹00'39 1°08'03 conjunction -4816 Aug 10 j 04:23 10°509'56 1°19'10 max. Earth dist. -4810 Jan 22 i 22:07 26° ₹21'37 6.01328 AU -4816 Aug 10 j 04:20 10°509'55 1°19'25 morning rise -4810 Feb 03 j 21:31 29° ₹ 12'07 minimum elong -4816 Aug 22 j 19:48 12°557'11 -4810 Feb 07 j 06:48 0°る morning rise -4816 Dec 14 j 06:46 retrograde -4810 Jun 15 j 22:33 19°る29'36 0 $^{\circ}\Omega$ retrograde -4816 Dec 21 j 14:16 0°£05′03 opposition -4810 Aug 14 j 21:14 14°る24'53 -2°00'-3 -4816 Dec 28 j 21:59 30°RS min. Earth dist. -4810 Aug 13 j 16:43 14°**궁**34'34 4.02516 AU opposition -4815 Feb 20 j 07:04 25°513'35 2°03'55 direct -4810 Oct 11 j 20:23 9°**る**29'10 min. Earth dist. -4815 Feb 21 j 12:49 25°504'06 4.36603 AU evening set -4809 Feb 14 j 03:47 28°정45'25 direct -4815 Apr 23 j 22:34 20°513'10 -4809 Feb 19 j 11:24 0°≈ -4815 Jul 20 j 15:41 0° Ω -4809 Feb 27 j 17:33 evening set -4815 Aug 28 j 10:42 8°**£**11′03 conjunction 1°≈56'12 -1°-24'-20 -4815 Sep 08 j 05:19 10° Ω35'42 -4809 Feb 27 j 17:34 max. Earth dist. 6.33139 AU minimum elong 1°**≈**56'12 1°24'34 max. Earth dist. -4809 Mar 01 j 15:42 2°≈23'16 6.05059 AU conjunction -4815 Sep 09 j 23:27 10°**Ω**59'21 1°24'41 morning rise -4809 Mar 13 j 09:47 5°**≈**08'07 minimum elong -4815 Sep 09 j 23:28 10° Ω 59'22 1°24'53 -4809 Apr 27 j 07:51 15°**≈** morning rise -4815 Sep 22 j 10:37 13°Ω46'58 retrograde -4809 Jul 21 j 15:34 24°≈56'21 -4815 Sep 27 j 21:58 15°**Ω** -4809 Sep 18 j 00:20 20°≈00'37 4.09155 AU min. Earth dist. -4815 Dec 23 j 15:10 0° m -4809 Sep 19 j 03:42 19°≈51'15 -2°00'-5 opposition

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 9

-	ical year style is used: Th		•	, , , , , , , , , , , , , , , , , , ,		, .	
	-4809 Nov 07 j 20:23	-		opposition	-4803 Feb 24 j 20:12		
direct	-4809 Nov 16 j 14:01	14° ≈ 52'10		min. Earth dist.	-4803 Feb 26 j 02:03		4.35394 AU
	-4809 Nov 25 j 08:16	15° ≈		direct	-4803 Apr 28 j 09:19		
	-4808 Mar 04 j 16:32	0° ∀			-4803 Jun 29 j 16:22	$0^{\circ}\Omega$	
evening set	-4808 Mar 22 j 00:17	3°) 53′33		evening set	-4803 Sep 01 j 19:44	12° Ω 42′13	
					-4803 Sep 12 j 01:17	15° Ω	
conjunction	-4808 Apr 04 j 18:16	7° ∺ 02'13	-1°-9'-43	max. Earth dist.	-4803 Sep 12 j 16:17	15° Ω 08′27	6.31628 AU
minimum elong	-4808 Apr 04 j 18:20	7° ∺ 02'15	1°09'51				
max. Earth dist.	-4808 Apr 06 j 09:09	7° ∺ 24'28	6.13986 AU	conjunction	-4803 Sep 14 j 08:17	15° Ω 31′00	1°23'24
morning rise	-4808 Apr 18 j 12:56	10° ∺ 11′01		minimum elong	-4803 Sep 14 j 08:19	15° Ω 31′01	1°23'35
retrograde	-4808 Aug 23 j 10:13	29°) €04'08		morning rise	-4803 Sep 26 j 19:12	18° Ω 19'10	
opposition	-4808 Oct 21 j 19:15	24°) €01'18	-1°-18'-2		-4803 Nov 23 j 06:18	0° m	
min. Earth dist.	-4808 Oct 21 j 00:29	24°) €07'40	4.19381 AU	retrograde	-4802 Jan 28 j 01:05	6° Mp 05′03	
direct	-4808 Dec 20 j 06:26	18° ¥ 59'16		opposition	-4802 Mar 30 j 02:03	1°Mp 12′52	1°50'18
	-4807 Mar 22 j 02:17	0 ° Υ		min. Earth dist.	-4802 Mar 31 j 05:18	1°Mp04'12	4.27130 AU
evening set	-4807 Apr 26 j 16:37	7° Ƴ 36'31			-4802 Apr 08 j 17:38	30° Ŗ Ω	
				direct	-4802 May 30 j 23:31	26° Ω 15'45	
conjunction	-4807 May 10 j 09:59	10° Y ′40′25	0°-31'-43		-4802 Jul 20 j 18:39	0° ™	
minimum elong	-4807 May 10 j 10:01	10° Y ′40′26	0°31'42	evening set	-4802 Oct 03 j 06:38	14° m 32'04	
max. Earth dist.	-4807 May 11 j 02:52	10° Y 49′52	6.24763 AU				
morning rise	-4807 May 24 j 02:01	13° Y 43′25		conjunction	-4802 Oct 15 j 19:20		1°00'39
	-4807 Aug 23 j 04:14	0°8		minimum elong	-4802 Oct 15 j 19:23		1°00'42
retrograde	-4807 Sep 24 j 14:29	1° 8 39'58		max. Earth dist.	-4802 Oct 14 j 12:41	•	6.21896 AU
	-4807 Oct 26 j 19:11	30° Ŗ ♈		morning rise	-4802 Oct 28 j 08:23		
opposition	-4807 Nov 23 j 01:18	26° Y 40′52			-4802 Dec 12 j 10:28	0∘ ⊽	
min. Earth dist.	-4807 Nov 22 j 22:15	26° Y 41′53	4.29655 AU	retrograde	-4801 Mar 03 j 16:34	8° ≏ 54'11	
direct	-4806 Jan 22 j 20:55	21° Y '37'14		opposition	-4801 May 03 j 19:58	3° ≏ 59'24	1°00'35
asc. node	-4806 Feb 04 j 20:03	21° Y ′53'07		min. Earth dist.	-4801 May 04 j 10:34	3° ≏ 54'42	4.16510 AU
	-4806 Apr 12 j 14:08	0°8			-4801 Jun 09 j 07:19	30°R, Mp	
evening set	-4806 May 30 j 17:43	9° 8 51'10		direct	-4801 Jul 03 j 12:25	29° mg 04'55	
					-4801 Jul 27 j 15:23	0∘ ⊽	
conjunction	-4806 Jun 13 j 05:13		0°15'04	evening set	-4801 Nov 04 j 21:31	17° ₽ 42'49	
minimum elong	-4806 Jun 13 j 05:11		0°15'14				
behind sun begin	-4806 Jun 13 j 02:52			conjunction	-4801 Nov 17 j 15:07		0°17'42
behind sun end	-4806 Jun 13 j 07:30			minimum elong	-4801 Nov 17 j 15:08		0°17'37
max. Earth dist.	-4806 Jun 12 j 22:18		6.33808 AU	max. Earth dist.	-4801 Nov 17 j 06:40		6.11417 AU
	-4806 Jun 23 j 03:26			morning rise	-4801 Nov 30 j 10:26		
morning rise	-4806 Jun 26 j 13:38				-4801 Dec 28 j 03:03	0°M	
	-4806 Sep 11 j 01:58	0° П		desc. node	-4800 Apr 05 j 03:37	13°M12'26	
retrograde	-4806 Oct 25 j 15:27	3° Ⅱ 01'46		retrograde	-4800 Apr 08 j 01:09	13°M13'14	00 121 15
	-4806 Dec 09 j 15:45	30°₹ 8	0050100	opposition	-4800 Jun 07 j 22:16	8°M14'44	0°-12'-15
opposition	-4806 Dec 24 j 11:33	28° 8 06'28	0°53'33	min. Earth dist.	-4800 Jun 07 j 19:43	8°M15'34	4.06981 AU
min. Earth dist.	-4806 Dec 24 j 23:01	28° 8 02'43	4.36842 AU	direct	-4800 Aug 06 j 07:04	3°M21'45	
direct	-4805 Feb 24 j 08:54	23° 8 02'49		. ,	-4800 Nov 05 j 23:52	15°M	
. ,	-4805 May 08 j 00:04	0°Ⅱ 110Ⅲ01122		evening set	-4800 Dec 08 j 06:15	22°11621'42	
evening set	-4805 Jul 02 j 06:40	11° I I01'32	C 20542 ATT	. ,.	4000 D 21:06 46	250 M 27120	00 221 44
max. Earth dist.	-4805 Jul 14 j 04:38	13° Ⅱ 38′01	6.38542 AU	conjunction	-4800 Dec 21 j 06:46		0°-32'-44
:	4005 I1 15:00.50	120πε2120	0057120	minimum elong	-4800 Dec 21 j 06:43		0°32'58
conjunction	-4805 Jul 15 j 08:50			max. Earth dist.	-4800 Dec 21 j 22:48		6.03724 AU
minimum elong	-4805 Jul 15 j 08:47	13° П 53'28 16° П 43'47	0°56'34	morning rise	-4799 Jan 03 j 10:34	28°MJ35'04 0°₹	
morning rise	-4805 Jul 28 j 07:41	10 ш 43 47		ratra arada	-4799 Jan 09 j 10:53	0 x . 18° x 44'47	
ratra ara da	-4805 Oct 06 j 06:46	0°99 3°9545'17		retrograde	-4799 May 15 j 04:53	13°×'44'47	19 22! 6
retrograde	-4805 Nov 25 j 14:09			opposition	-4799 Jul 14 j 15:18		-1°-23'-6
ampagition	-4804 Jan 16 j 01:09	30°RⅡ 28°Ⅱ52'48	1°43'34	min. Earth dist.	-4799 Jul 13 j 19:03	13° х 49'06 8° х 48'45	4.01969 AU
opposition min. Earth dist.	-4804 Jan 24 j 19:59	28° I I44'50		direct	-4799 Sep 10 j 22:28	8 x 48 43 28° x 03′20	
min. Earth dist.	-4804 Jan 25 j 20:44 -4804 Mar 27 j 10:10	28° II 44'50 23° II 50'27	4.38950 AU	evening set	-4798 Jan 13 j 08:23 -4798 Jan 21 j 13:18	0°る	
uncei	-4804 Mar 27 j 10:10	23°Щ3027			- 1 /20 Jan 21 J 15.18	0 0	
evening set	-4804 Jun 03 j 10:36 -4804 Aug 01 j 18:07	11° © 44'52		conjunction	-4798 Jan 26 j 16:27	1° る 13'10	-1°-11'-58
max. Earth dist.	-4804 Aug 11 j 18:07	14°9511'02	6.37725 AU	minimum elong	-4798 Jan 26 j 16:27	1°る1310	1°12'14
max. Darui uist.	-+00+ Aug 12 J 19.08	14 491102	0.31123 AU	max. Earth dist.	-4798 Jan 28 j 07:00	1° る 36'06	6.01746 AU
conjunction	4804 Ang 14: 11:26	1406522125	1°21'21		-4798 Feb 09 j 03:43	4°る24'42	0.01/40 AU
conjunction minimum elong	-4804 Aug 14 j 11:36 -4804 Aug 14 j 11:34	14° © 33'25 14° © 33'24	1°21'21 1°21'35	morning rise retrograde	-4798 Feb 09 j 03:43 -4798 Jun 21 j 01:36	4°624'42 24° る 39'10	
morning rise	-4804 Aug 14 j 11:34 -4804 Aug 27 j 02:17	14°933°24 17°920'40	1 41 33	opposition	-4798 Jun 21 j 01:36 -4798 Aug 19 j 22:24	19° る 39'10	-2°-2'-57
morning 1150	-4804 Aug 27 j 02:17 -4804 Oct 31 j 03:06	1/°92040 0°Ω		min. Earth dist.	-4798 Aug 19 j 22:24 -4798 Aug 18 j 18:18		4.03394 AU
retrograde	-4804 Oct 31 j 03:06 -4804 Dec 26 j 02:36	0 δ <i>t</i> 4° Ω 32'49		direct	-4798 Aug 18 j 18.18		т.0 <i>337</i> + М О
renograde	-4804 Dec 26 j 02:36 -4803 Feb 22 j 09:45	4°8 <i>1</i> 32'49 30°8©		uncet	-4797 Feb 02 j 12:13	14° ℃ 38'03	
	-1003 1°CU 22 J U7.43	JU 1\-			71711CU 02 J 12.13	υ ~ ~	

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 10

Attention, astronomical year style is used: The year -4797 in astronomical counting style is the year 4798 BCE in historical counting style. -4797 Feb 19 j 08:37 3°≈52'03 max. Earth dist. -4792 Aug 17 j 03:17 18°537'08 evening set 6.36991 AU -4797 Mar 04 j 23:06 7°≈02'34 -1°-24'-7 -4792 Aug 18 j 19:50 18°\$59'38 1°23'06 conjunction conjunction -4792 Aug 18 j 19:48 18°559'37 -4797 Mar 04 j 23:07 7°≈02'35 1°24'19 minimum elong 1°23'20 minimum elong max. Earth dist. -4797 Mar 06 j 21:15 -4792 Aug 31 j 09:41 21°546'50 7°≈29'32 6.06302 AU morning rise -4792 Oct 09 j 15:15 morning rise -4797 Mar 18 j 15:53 10°≈14'07 $0^{\circ}\Omega$ -4797 Apr 08 j 15:00 15°**≈** retrograde -4792 Dec 30 j 16:49 9°**Ω**02'59 29°≈54'42 4°**Ω**11'38 2°05'00 retrograde -4797 Jul 26 j 10:49 opposition -4791 Mar 01 j 10:51 4°**Ω**01'56 4.34350 AU opposition -4797 Sep 23 j 22:43 24°**≈**49'49 -1°-56'-22 min. Earth dist. -4791 Mar 02 j 17:20 min. Earth dist. -4797 Sep 22 j 19:29 24°**≈**59′07 4.10646 AU -4791 Apr 09 j 19:36 30°Rூ direct -4797 Nov 21 j 11:15 19°≈50'16 direct -4791 May 02 j 23:16 29°9512'03 -4796 Feb 15 j 10:31 0°**)**€ -4791 May 26 j 02:54 $0^{\circ}\Omega$ evening set -4796 Mar 27 j 01:35 8°**)** 47'55 -4791 Aug 27 j 02:33 15°**Ω** evening set -4791 Sep 06 j 05:39 17°**Ω**15'00 conjunction -4796 Apr 09 j 19:42 11° **€** 55'57 -1°-5'-30 max. Earth dist. -4791 Sep 17 j 01:57 19°**Ω**41'37 6.30366 AU minimum elong -4796 Apr 09 j 19:46 11°**米** 55'59 1°05'36 max. Earth dist. -4796 Apr 11 j 06:41 12° **∺** 15'55 6.15605 AU conjunction -4791 Sep 18 j 17:54 20° **Ω**04'11 1°21'39 morning rise -4796 Apr 23 j 14:21 15°**₭**04'00 minimum elong -4791 Sep 18 j 17:56 20° **Ω**04'12 -4796 Jul 09 j 00:26 $0^{\circ}\Upsilon$ morning rise -4791 Oct 01 j 04:54 22° Ω52'53 retrograde -4796 Aug 28 j 00:31 3°**Y**48'30 -4791 Nov 03 j 03:16 0° m -4796 Oct 17 j 04:41 30°R € retrograde -4790 Feb 01 j 19:28 10° mp 45'07 opposition -4796 Oct 26 i 08:49 28° \ \ 46'06 -1°-9'-49 opposition -4790 Apr 03 j 21:42 5° m 52'37 1°45'15 min. Earth dist. -4796 Oct 25 i 16:59 28° ¥51'29 4.20959 AU min. Earth dist. -4790 Apr 04 i 22:39 5° m 44'41 4.25750 AU direct -4796 Dec 25 i 01:18 23°\(\frac{1}{2}\)43'43 direct -4790 Jun 04 j 15:04 0° m 55'56 -4795 Mar 01 j 14:00 0°**Υ** evening set -4790 Oct 07 j 19:15 19° m 14'48 -4795 May 01 j 12:24 12°**Υ**17'15 max. Earth dist. -4790 Oct 19 j 06:07 21° m 53'08 6.20541 AU evening set -4795 May 15 j 05:23 15°**Υ**20'21 0°-25'-23 -4790 Oct 20 j 08:30 22° Mp 08'23 conjunction conjunction 0°55'35 -4795 May 15 j 05:25 15° **Y**20'22 0° 25'21 -4790 Oct 20 j 08:34 22° Mp 08'25 0°55'38 minimum elong minimum elong -4795 May 15 j 19:45 15°**Υ**28'22 -4790 Nov 01 j 22:03 25° m 02'23 max. Earth dist. 6.26198 AU morning rise -4795 May 28 j 20:30 18°**Υ**22'25 -4790 Nov 23 j 23:30 0°**♀** morning rise -4795 Jul 25 j 10:08 0°**႘** retrograde -4789 Mar 08 j 17:39 13°**£**45'35 -4795 Sep 28 j 22:26 6°**8**12'14 -4789 May 08 j 20:26 8°**⊆**50'21 0°51'16 retrograde opposition -4795 Nov 27 j 10:55 1°**8**13'41 0°-3'-14 -4789 May 09 j 09:11 opposition min. Earth dist. 8°**£**46'16 4.15272 AU -4795 Nov 27 j 09:21 1°**8**14'12 4.30841 AU -4789 Jul 08 j 09:33 min. Earth dist. direct 3°**≏**56'14 -4795 Dec 06 j 18:19 30°R**Y** -4789 Nov 09 j 14:41 22°**△**36'17 evening set asc. node -4795 Dec 16 j 01:25 28° **Y** 51'01 direct -4794 Jan 27 j 09:19 26°**Υ**09'58 conjunction -4789 Nov 22 j 08:59 25°**Ω**36'26 0°10'42 -4794 Mar 20 j 04:55 0°**႘** -4789 Nov 22 j 08:59 25°**Ω**36'26 0°10'37 minimum elong -4794 Jun 04 j 08:33 14°**8**21'29 behind sun begin -4789 Nov 22 j 02:42 25°**△**32'45 evening set -4794 Jun 07 j 06:59 15°**8** behind sun end -4789 Nov 22 j 15:17 25°**2**40'08 max. Earth dist. -4789 Nov 22 j 02:57 25°**♀**32'54 6.10406 AU -4794 Jun 17 j 18:45 17°**8**18'22 0°21'26 -4789 Dec 05 j 05:31 28°**2**37'53 conjunction morning rise -4794 Jun 17 j 18:43 17°**8**18'21 0°21'37 -4789 Dec 11 j 02:22 0°M minimum elong -4794 Jun 17 j 07:08 17°**8**11'59 6.34656 AU -4788 Feb 14 j 07:48 13°ML14'04 max. Earth dist. desc. node -4794 Jul 01 i 02:03 20°813'41 morning rise -4788 Feb 26 i 13:12 15°M -4794 Aug 18 j 00:23 $0^{\circ}\Pi$ retrograde -4788 Apr 13 j 03:37 18° ML13'58 retrograde -4794 Oct 30 i 00:22 7°**Ⅱ**27'10 -4788 May 30 i 08:27 15°RML opposition -4794 Dec 28 i 20:19 2°**I**32'20 1°01'52 opposition -4788 Jun 13 i 00:48 13°ML14'52 0°-22'-55 min. Earth dist. -4794 Dec 29 j 10:56 2°**Д**27'34 4.37312 AU min. Earth dist. -4788 Jun 12 j 18:39 13°ML16'53 4.06295 AU -4793 Jan 18 j 05:28 30°R8 direct -4788 Aug 11 j 05:06 8°M21'56 -4793 Feb 28 j 21:32 27°828'45 -4788 Oct 16 j 17:51 15° M direct -4793 Apr 11 j 19:58 $\Pi^{\circ}0$ -4788 Dec 13 j 04:21 27°M23'14 evening set -4793 Jul 06 j 17:29 15°**Ⅲ**26'48 evening set -4788 Dec 24 j 04:15 0°×7 0°**∡**129'36 0°-39'-17 conjunction -4793 Jul 19 j 18:31 18°**Д**18'13 1°01'00 conjunction -4788 Dec 26 j 05:57 minimum elong -4793 Jul 19 j 18:27 18°**Ⅱ**18'12 1°01'15 minimum elong -4788 Dec 26 j 05:54 0°**х** 29′34 0°39'30 -4793 Jul 18 j 12:21 18°**Д**01'39 -4788 Dec 27 j 02:23 0°**х** 41′46 max. Earth dist. 6.38578 AU max. Earth dist. 6.03415 AU 3°**∡**³37'43 -4793 Aug 01 j 16:02 21°**Ⅲ**07'59 -4787 Jan 08 j 10:38 morning rise morning rise -4793 Sep 13 j 18:41 -4787 May 20 j 08:51 23° ₹ 49'06 0ಂತಾ retrograde -4787 Jul 19 j 16:47 18°**х** 46'13 retrograde -4793 Nov 29 j 22:22 8°910'06 opposition -1°-30'-57 -4792 Jan 29 j 06:31 3°**©**17'51 1°48'30 min. Earth dist. -4787 Jul 18 j 19:58 18°**₹**′53'11 4.02078 AU opposition min. Earth dist. -4792 Jan 30 j 07:38 3°509'47 4.38589 AU direct -4787 Sep 15 j 22:58 13°**∡** 52′22 -4792 Feb 26 j 08:15 30°RⅡ -4786 Jan 05 j 01:54 0°ಕ direct -4792 Mar 31 j 20:07 28°**Ⅲ**15'47 evening set -4786 Jan 18 j 09:53 3°**る**06'48 -4792 May 05 j 13:03 -4792 Aug 06 j 03:19 16°5511'13 -4786 Jan 31 j 18:49 6°**♂**16'49 -1°-15'-27 evening set conjunction

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 11 Attention, astronomical year style is used: The year -4786 in astronomical counting style is the year 4787 BCE in historical counting style.

minimination of Fragity of Part Part Part Part Part Part Part Part	Attention, astronom	nical year style is used: Tl	he year -4786	in astronomical co	unting style is the year	4787 BCE in historical of	counting style	
corning free proteograde opposition (1786 bit 2) (0.02) 2752 278 (2.02) continuity of the proteophal (1.02)	minimum elong	-4786 Jan 31 j 18:46	6° ප 16'47	1°15'44	opposition	-4780 Feb 02 j 17:46	7°5944'47	1°52'48
cropnetion -778 Aug 2019 105 29°9378 29°6378 29°6378 29°6378 29°6378 29°6378 20°6378	max. Earth dist.	-4786 Feb 02 j 10:53	6° ප 40'34	6.02233 AU	min. Earth dist.	-4780 Feb 03 j 20:38	7° 5 36'10	4.38280 AU
opposition 478 Aug 24 j 1947 24°52 J 1962 St. 1953 St	morning rise	-4786 Feb 14 j 07:02	9° る 28'28		direct	-4780 Apr 05 j 09:13	2°5542'59	
nin. Earth differ 4778 Oct 21 jp.02 20 1975 3970 0.042 20 1975 3070 compunetion 4789 Aug 23 jp.04 22 292700 1728 00 1976 20 1976 3070 1728 00 1976 20 1976 3070 1728 00 1976 20 1976 3070 1728 00 1976 20 1976 3070 1728 00 1976 20 1976 3070 1728 00 1976 20 1976 3070 1728 00 1976 3070 <	retrograde	-4786 Jun 26 j 00:05			evening set	-4780 Aug 10 j 12:21	20°538'48	
Part	opposition	-4786 Aug 24 j 19:47	24° ප 34'36	-2°-4'-49	max. Earth dist.	-4780 Aug 21 j 11:30	23° © 04'33	6.36384 AU
ceyming set 478 S Pat 5 1 [1254] 0'88 minimum clong 4780 S Cap 4 [1012] 262 [70] 123 [70] 123 [70] 123 [70] 123 [70] 123 [70] 123 [70] 123 [70] 4780 S Cap 4 [70] 123 [70] 123 [70] 123 [70] 4780 S Cap 4 [70] 123 [70] 123 [70] 123 [70] 123 [70] 4780 S Cap 4 [70] 123 [70]	min. Earth dist.	-4786 Aug 23 j 14:55	24° る 44'25	4.04232 AU				
Person P	direct	-4786 Oct 21 j 20:23	19° ප 38'01		conjunction	-4780 Aug 23 j 04:05	23° 5 27'06	1°24'23
Conjunction		-			_			1°24'36
	evening set	-4785 Feb 24 j 10:12	8° ≈ 50'16		morning rise			
Manimum cloog						-4780 Sep 22 j 00:07	0 $^{\circ}\Omega$	
Max	•	-			retrograde	-4779 Jan 04 j 04:49	13° Ω 33'50	
March Marc	minimum elong	-4785 Mar 10 j 01:19	12° ≈ 00′36	1°23'29	opposition	-4779 Mar 06 j 01:25	8° Ω 42′20	2°04'25
Morning rise 478 Mar 23 ji 838 15% e1151 15%	max. Earth dist.	-4785 Mar 11 j 21:26	12° ≈ 26′18	6.07397 AU	min. Earth dist.	-4779 Mar 07 j 06:35	8° Ω 33'04	4.33483 AU
Caregraphe 478 Sun 19 131-14 0°PY 147-15 147-15 2°P3 P 1 147-15 2°P3		-4785 Mar 22 j 22:07	15° ≈		direct			
conjunction	morning rise	-4785 Mar 23 j 18:38	15° ≈ 11'51					
opposition 4.785 Sep 26 (36.80 g 30°Psee 119°Psee 129°Psee 129°Psee 129°Psee 129°Psee 129°Psee 129°Psee 129°Psee 129°Psee 129°Ps		-4785 Jun 04 j 18:14	0° ∀		evening set			
opposition time Earth dist. 4.78 S Sep 2 8] 15.02 2 29%e41/12 1-21-15-15-9 conjunction 4.779 Oct 0 5] 13-22 27%22-75 4.724 (2014) 21-12-12-14-14-14-14-14-14-14-14-14-14-14-14-14-	retrograde	-4785 Jul 31 j 04:31	4°) {45'51		max. Earth dist.	-4779 Sep 21 j 12:43	24° Ω 15'12	6.29294 AU
min. Earth dist 4.778 Sep 27 j 13.49 29%-84/49 4.11871 AU minimum clong 4.779 Oct 17 j 0.10 0° morning rise 4.778 A pr 0 j 1.71 0° morning rise 4.778 A pr 0 j 1.71 0° morning rise 4.778 A pr 0 j 1.71 0° morning rise 4.778 A pr 16 j 0.423 1° 0.05 0° 0.5 min Earth dist 4.778 A pr 0 j 1.71 0° morning rise 4.778 A pr 16 j 0.423 1° 0.05 0° 0.5 min Earth dist 4.778 A pr 0 j 1.71 0° morning rise 4.778 A pr 0 j 1.71 0° 0.71 2.4500 AU retrograde 4.784 A pr 18 j 13.13 19° M30° 6.16889 AU cvering set 4.778 Oct 12 j 0.03 26° morning rise 4.778 Oct 12 j 0.03		-4785 Sep 26 j 08:02	30° R ≈					
Greet 4788 Nov 26 jor 28 24*84112 morning rise	opposition	-4785 Sep 28 j 15:02	29° ≈ 41'12	-1°-51'-59	conjunction	-4779 Sep 23 j 02:45	24° Ω 36'45	1°19'24
cenning set 4.784 Apr 0 1 j0 10;19 0.794 Apr 0 1 j0 10;19 13°H36 Is	min. Earth dist.	-4785 Sep 27 j 13:49	29° ≈ 49'49	4.11871 AU	minimum elong	-4779 Sep 23 j 02:47	24° Ω 36'47	1°19'34
evening set 4.784 Apr 0 j 00.19 13* 4.618 retrograde 4.778 Reb 0 e j 14.19 15* 0.72352 2.4350 Al Diminimum clong minimum clong max. Earth dist 4.778 Apr 1 4 j 18.52 16* 4.4358 10* 10* 10* 0.00 Al direct 4.778 Apr 0 e j 17.19 10* 0.2352 2.4350 Al Diminimum clong 4.778 Apr 1 6 j 16.42 17* 6.4532 15* 6.4532 10* 0.00 Al direct 4.778 Apr 0 e j 17.19 10* 0.2352 2.4350 Al Diminimum clong 4.778 Apr 1 6 j 16.42 17* 6.4532 10* 6.4532	direct	-4785 Nov 26 j 07:28	24° ≈ 41'12		morning rise	-4779 Oct 05 j 13:42	27° Ω 25'54	
conjunction -4784 Apr 14 j 18.48		-4784 Jan 24 j 20:58	0°) €			-4779 Oct 17 j 01:50	0° m	
conjunction -4784 Apr 4 j 18.48 6 °H 43'56 1°90'57 min. Earth dist -4778 Apr 0 j 17:19 10°mg215 424500 AU minimum clong -4784 Apr 4 j 18.52 16°H 43'85 10°10'2 direct -4778 Dot 12 j 0.05 \$ 25°H 34'5 Fill 18.50 Fill 18.50 Fill 19.50 Fill	evening set	-4784 Apr 01 j 00:19	13°) 36′18		retrograde	-4778 Feb 06 j 14:19	15° m 23'52	
minimum elong 4784 Apr 1 4 j 18:52 16 + 43°S and 16; 194°S 2 16 + 43°S and 10; 10°S 2 16°P 43°S and 10°S and 10°S 2 16°P 43°S and 10°S and 10°S 3 16°P 43°S and 10°S	-				opposition	-4778 Apr 08 j 16:47	10° mp 31'03	1°39'33
minimum elong 4.784 Apr 16 j 0.423 1°P4 30°302 6.0423 1°P4 30°302 direct 4.778 Oct 12 j 06:30 5°B 3443 1°P4 50°202 1°P4 50°202 </td <td>conjunction</td> <td>-4784 Apr 14 j 18:48</td> <td>16°) 43′56</td> <td>-1°00'-57</td> <td></td> <td></td> <td>10° m 23'15</td> <td>4.24500 AU</td>	conjunction	-4784 Apr 14 j 18:48	16°) 43′56	-1°00'-57			10° m 23'15	4.24500 AU
moming rise	minimum elong	-4784 Apr 14 j 18:52	16°) 43′58	1°01'02	direct		5° m 34'43	
Morning rise	max. Earth dist.		17°) €03'02	6.16889 AU	evening set		-	
Conjunction					C	J	•	
Petrograde 4784 Sep 01 j 12.22 8°°V28'41 minimum elong 4778 Oct 24 j 20.38 26° m 49'88 05'014 05'014 05'016'14 42218 0 AU max. Earth dist. 4778 Oct 23 j 192.7 26° m 3'73 14 42218 0 AU morning rise 4778 Nov 06 j 10.59 25° m 3'43 10'214 12'18 0 AU 4778 Nov 06 j 10.59 25° m 3'43 10'214 12'18 0 AU 4778 Nov 06 j 10.59 25° m 3'43 10'214 12'18 0 AU 4778 Nov 06 j 10.59 25° m 3'43 10'214 12'18 0 AU 4778 Nov 07 j 13:19 0° Co 0° Co 4778 Nov 07 j 13:19 0° Co	8 33				conjunction	-4778 Oct 24 i 20:35	26° m 49'56	0°50'13
Poposition 4784 Oct 30 j 20.33 3°P/3°F0 1°-11-20 max. Earth dist. 4778 Oct 23 j 19-27 2°m 35°23 6.19219 AU min. Earth dist. 4778 Nov 06 j 10.59 2°m 44′50 2°m 44′5	retrograde	-	8° Ƴ 28'41		-		-	
min. Earth dist.	•			-1°-1'-20	C	3		
direct 4784 Nov 28 j 01:39 30% ★ retrograde 4777 Mar 13 j 19:25 8° A3459 direct 4784 Dec 29 j 15:50 28° \$42415 retrograde 4777 Mar 13 j 19:25 18° A3459 evening set 4783 May 06 j 07:00 16° \$75529 min. Earth dist. 4777 May 13 j 19:25 13° A3608 4.13964 AU conjunction 4783 May 19 j 23:20 19° \$7575 0°18°55 evening set 4777 Nov 1 j 07:20 27° £28'07 max. Earth dist. 4783 May 19 j 23:22 12°° \$7574 0°18'55 evening set 4777 Nov 25 j 01:14 0°10.1 max. Earth dist. 4783 May 19 j 23:22 12°° \$7574 0°18'55 evening set 4777 Nov 25 j 01:14 0°8.21 max. Earth dist. 4783 May 10 j 05:12:25 0°8 conjunction 4777 Nov 27 j 02:36 0°8.2911 0°03'41 retrograde 4783 Oct 03 j 08:07 10°243 50 0°06'18 min. immune long 4777 Nov 27 j 02:36 0°8.2911 0°03'34 asc. node 4783 Oct 03 j 05:02 5°845'53 0°06'18 max. Earth dist. 4777 Nov 27 j 02:36 0°8.28'20	* *	•				3		
direct 4.784 loc 29 j 15:50 28°H 24'I 5 retrograde 4.777 May 13 j 15:45 18°± 34'93' 10' 11' 12' 12' 13' 34' 34' 10' 11' 12' 12' 13' 34' 34' 10' 11' 12' 12' 13' 34' 34' 10' 11' 12' 12' 13' 34' 34' 10' 11' 13' 13' 13' 13' 13' 13' 13' 13' 13		-			. 8			
evening set	direct				retrograde			
evening set 4783 May 0 6 j 07:05 16°V55'29 miin. Earth dist. 4777 May 14 j 05:01 3°£36'08 4.1396'4 NI direct 4777 Nay 14 j 05:01 3°£36'08 4.1396'4 NI direct 4777 Nay 14 j 05:01 3°£36'08 4.1396'4 NI direct 4777 Nay 14 j 05:01 3°£36'08 4.1396'4 NI direct 4777 Nay 14 j 05:01 3°£36'08 4.1396'4 NI direct 4777 Nay 14 j 05:01 3°£36'08 4.1396'4 NI direct 4777 Nay 14 j 05:01 3°£36'08 4.1396'4 NI direct 4777 Nay 14 j 05:01 3°£36'08 4.1396'4 NI direct 4777 Nay 14 j 05:01 3°£36'08 4.1396'4 NI direct 4777 Nay 14 j 05:01 3°£36'08 4.1396'4 NI direct 4777 Nay 14 j 05:01 3°£36'08 4.1396'4 NI direct 4777 Nay 14 j 05:01 3°£36'08 4.1396'4 NI direct 4777 Nay 14 j 05:01 3°£36'08 4.1396'4 NI direct 4777 Nay 14 j 05:01 3°£36'08 4.1396'4 NI direct 4777 Nay 14 j 05:01 3°£36'08 4.1396'4 NI direct 4777 Nay 14 j 05:01 3°£36'08 4.1396'4 NI direct 4778 Nay 19 j 23:22 3°£96'59'14 5°£96'49'8 5°£96'4		3			-	3		0°41'38
Conjunction 4783 May 19 j 23:22 19°Y5754 0°18°58 evening set 4777 Nov 14 j 07:20 27°42807 retrograde 4783 May 19 j 23:22 19°Y5755 0°18'55 retrograde 4783 May 20 j 08:42 20°Y03'06 6.27275 AU retrograde 4783 Nay 20 j 08:42 20°Y03'06 6.27275 AU retrograde 4783 Nay 20 j 08:42 20°Y03'06 6.27275 AU retrograde 4783 Nay 20 j 08:42 20°Y03'06 6.27275 AU retrograde 4783 Nay 20 j 08:42 20°Y03'06 6.27275 AU retrograde 4783 Nay 20 j 13:51 22°Y59'14 conjunction 4777 Nov 27 j 02:37 0°18.291 0°03'41 0°04'428 0°04'40	evening set	-						
conjunction minimum clong minimum clong max. Earth dist. 4783 May 19 j 23:22 19°°N°7575 0°18°55 evening set 4777 Nov 25 j 01:14 0°IL	e venning see	1705 11145 00 5 07.05	10 (002)					
minimum elong	conjunction	-4783 May 19 i 23:20	19° ℃ 57'54	0°-18'-58		-		
max. Earth dist. -4783 Jun 20 j 08:42 20°°γ03′06 6.27275 AU conjunction -4777 Nov 27 j 02:37 0°RL29′11 0°03′41	•				evening set			
morning rise	•					1777 1101 25 j 01:11	0 110	
Part				0.27273 110	conjunction	-4777 Nov 27 i 02:37	0°M.29'11	0°03'41
Petrograde 4783 Oct 03 j 08:07 10°843'50 behind sun begin 4777 Nov 26 j 18:36 0°1L24'28 asc. node 4783 Oct 26 j 19:34 9°849'48 behind sun end 4777 Nov 27 j 10:36 0°1L24'28 opposition 4783 Dec 01 j 20:28 5°845'50 0°06'18 max. Earth dist. 4777 Nov 27 j 10:36 0°1L28'02 6.09237 AU min. Earth dist. 4777 Nov 27 j 10:36 0°1L28'02 6.09237 AU min. Earth dist. 4777 Nov 27 j 10:36 0°1L28'02 6.09237 AU min. Earth dist. 4777 Nov 27 j 10:37 0°1L28'02 6.09237 AU min. Earth dist. 4777 Dec 10 j 00:06 3°1L3'155 15°1L 6.4782 Jan 3 j 23:07 0°842'03 4.31700 AU morning rise 4776 Jan 3 j 21:26 15°1L 6.4782 Jan 2 j 07:55 21°848'20 0°27'39 min. Earth dist. 4776 Jan 18 j 02:41 18°1L1'11 0°-33'-26 0°27'49 4776 Jan 18 j 02:41 18°1L1'11 0°-33'-26 0°27'49 4776 Jan 18 j 02:45 13°1L2'11 18°1L1'11 0°-33'-26 0°27'49 4776 Jan 18 j 02:51 13°1L2'11 18°1L1'11 0°-33'-26 0°27'49 4776 Jan 18 j 02:51 13°1L2'11 18°1L3'11 0°-33'-26 0°27'49 4776 Jan 18 j 02:52 13°1L2'11 18°1L3'11 0°-33'-26 0°27'49 4776 Jan 18 j 02:52 13°1L2'11 18°1L3'11 0°-33'-26 0°27'49 4776 Jan 18 j 02:52 13°1L2'11 18°1L3'11 0°-33'-26 0°27'49 0°27'49 4776 Jan 18 j 02:55 13°1L2'11 18°1L3'11 0°-33'-26 0°27'49 0°27		-			-	-		
asc. node	retrograde	3			_			0 03 34
min. Earth dist.	C	,			-	•		
min. Earth dist. 4783 Dec 01 j 21:49 5° 845'23 4.31700 AU morning rise 4777 Dec 10 j 00:06 3° 1L-31'35 direct 4782 Jan 31 j 23:07 0° 842'03 desc. node 4777 Dec 25 j 12:51 7° 1L-07'18 4776 Jan 31 j 21:26 15° 1L-2223 15° 8 4776 Jan 31 j 21:26 15° 1L-2223 15° 8 4776 Jan 31 j 21:26 15° 1L-2223 15° 8 4776 Jan 31 j 21:26 15° 1L-2223 15° 8 4776 Jan 31 j 21:26 15° 1L-2223 15° 1L-2223 15° 8 4776 Jan 31 j 21:26 15° 1L-2223 15° 8 4776 Jan 31 j 21:26 15° 1L-2223 15° 1L		-	_	0°06'18		•		6.09237 AU
direct 4782 Jan 31 j 23:07 0°842'03 desc. node 4777 Dec 25 j 12:51 7° 11.07'18 4 4782 Jan 31 j 23:07 15°8 4 4782 Jan 18 j 22:23 15°8 5 4786 Jan 31 j 21:26 15° 11.07 11.08 11.09 11	* *	•						0.07237 110
evening set		-		4.51700 AO	-	-		
evening set	direct				dese. Hode			
opposition	evening set	• •			retrograde	-		
conjunction	evening set	4702 Jun 00 j 22.41	10 032 07		•			0°-33'-26
minimum elong	conjunction	-4782 Jun 22 i 07:56	21°8/48'20	0°27'30		3		
max. Earth dist.	·	-			mm. Lattii dist.	3		4.03302 AC
morning rise		-			direct			
-4782 Jul 30 j 09:10 0°用 -4776 Dec 07 j 20:00 0°录 retrograde -4782 Nov 03 j 07:20 11° II 54'04 evening set -4776 Dec 18 j 02:55 2° ₹25'03 opposition -4781 Jan 02 j 05:37 6° II 59'41 1°09'48 min. Earth dist4781 Jan 02 j 20:55 6° II 54'41 4.37619 AU conjunction -4776 Dec 31 j 05:32 5° ₹32'07 0° -45'-33 direct -4781 Mar 05 j 08:10 1° II 56'18 minimum elong evening set -4781 Jul 11 j 04:33 19° II 53'52 max. Earth dist4781 Jul 22 j 19:31 22° II 26'47 6.38569 AU morning rise -4775 Jan 01 j 04:31 5° ₹41'01 retrograde -4775 Jan 13 j 11:26 8° ₹41'01 retrograde -4775 Jan 13 j 11:26 8° ₹41'01 retrograde -4775 Jan 13 j 11:26 8° ₹55'02 conjunction -4781 Jul 24 j 04:08 22° II 44'44 1° 05'19 opposition -4775 Jul 24 j 18:33 23° ₹51'44 -1° -38'-13 minimum elong -4781 Jul 24 j 04:05 22° II 44'42 1° 05'34 min. Earth dist4775 Dec 18 j 05:03 0° ₹ 18 j 05:05 18° ₹57'35 -4781 Aug 26 j 17:00 0° €				0.33240 AU	direct			
retrograde	morning rise	3						
opposition -4781 Jan 02 j 05:37 6°用59'41 1°09'48 min. Earth dist4781 Jan 02 j 20:55 6°用54'41 4.37619 AU conjunction -4776 Dec 31 j 05:32 5°ズ32'07 0°-45'-33 direct -4781 Mar 05 j 08:10 1°用56'18 minimum elong -4776 Dec 31 j 05:28 5°ズ32'05 0°45'46 evening set -4781 Jul 11 j 04:33 19°用53'52 max. Earth dist4775 Jan 01 j 04:31 5°ズ45'49 6.02790 AU max. Earth dist4781 Jul 22 j 19:31 22°用26'47 6.38569 AU morning rise -4775 Jan 13 j 11:26 8°ズ41'01 retrograde -4775 May 25 j 11:45 28°ズ55'02 conjunction -4781 Jul 24 j 04:08 22°用44'44 1°05'19 opposition -4775 Jul 24 j 18:33 23°ズ55'144 -1°-38'-13 minimum elong -4781 Jul 24 j 04:05 22°用44'42 1°05'34 min. Earth dist4775 Jul 23 j 19:36 23°ズ55'26 4.01856 AU morning rise -4781 Aug 26 j 17:00 0°© -4781 Aug 26 j 17:00 0°© -4781 Bi j 05:03 0°壱	ratragrada	-			avaning sat			
min. Earth dist.	•	-		1000140	evening set	-4//0 DEC 10 J U2.33	∠ x ·∠3 03	
direct					:	4776 Dec 21 : 05.22	59.722107	09 451 22
evening set		3		4.37019 AU				
max. Earth dist.		-			_			
retrograde -4775 May 25 j 11:45 28° ₹55'02 conjunction -4781 Jul 24 j 04:08 22° II 44'44 1°05'19 opposition -4775 Jul 24 j 18:33 23° ₹51'44 -1°-38'-13 min. Earth dist4775 Jul 23 j 19:36 23° ₹59'26 4.01856 AU morning rise -4781 Aug 26 j 17:00 0° 5 conjunction -4775 Dec 18 j 05:03 0° ₹5'05'2 conjunction -4775 Jul 23 j 19:36 23° ₹59'26 4.01856 AU direct -4775 Dec 18 j 05:03 0° ₹57'35 conjunction opposition -4775 Jul 24 j 18:33 23° ₹59'26 4.01856 AU direct -4775 Dec 18 j 05:03 0° ₹57'35 conjunction opposition opposition -4775 Jul 24 j 18:33 23° ₹59'26 4.01856 AU direct -4775 Dec 18 j 05:03 0° ₹57'35 conjunction opposition opposition opposition -4775 Jul 24 j 18:33 23° ₹59'26 4.01856 AU direct -4775 Dec 18 j 05:03 0° ₹57'35 conjunction opposition opp	•	-		6 20560 ATT				0.04/90 AU
conjunction -4781 Jul 24 j 04:08 22° II 44'44 1°05'19 opposition -4775 Jul 24 j 18:33 23° ₹51'44 -1°-38'-13 minimum elong -4781 Jul 24 j 04:05 22° II 44'42 1°05'34 min. Earth dist. -4775 Jul 23 j 19:36 23° ₹59'26 4.01856 AU morning rise -4781 Aug 26 j 17:00 0° 5 direct -4775 Dec 18 j 05:03 0° 5	max. Eaгth dist.	-4/01 Jul 22 J 19:31	ZZ 11 Z6'4/	0.36309 AU	•			
minimum elong dinimum elong -4781 Jul 24 j 04:05 22° II 44'42 1°05'34 min. Earth dist. direct -4775 Jul 23 j 19:36 23° ₹59'26 4.01856 AU direct -4775 Sep 20 j 21:52 18° ₹57'35 -4781 Aug 26 j 17:00 0° 5 -4781 Ger 18 j 05:03 0° ₹	aaminus -ti	4701 I-1 24:04:00	22011 4 41 4 4	1905110	•			10 201 12
morning rise		-						
-4781 Aug 26 j 17:00 0°ණ -4775 Dec 18 j 05:03 0° පි	_	-		1 03 34				4.01030 AU
e ,	morning rise				unect			
evening set -4//4 Jan 23 j 15:09 8°015'19	ratro are do				ovening set			
	renograde	-4/61 Dec 04 J 09:02	12 2030.49		evening set	-4//4 Jan 23 J 13:09	9 O13.19	

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4774 in astronomical counting style is the year 4775 BCE in historical counting style. -4774 Feb 05 j 23:00 11°る23'38 -1°-18'-26 conjunction -4769 Jul 28 j 13:23 27°**Ⅲ**09'39 1°09'13 conjunction -4774 Feb 05 j 22:57 11°る23'36 1°18'41 minimum elong -4769 Jul 28 j 13:20 27°**Д**09'37 1°09'28 minimum elong -4774 Feb 07 j 15:37 11°**5**47'41 -4769 Aug 10 j 08:19 29°**Ⅲ**58'08 max. Earth dist. 6.02400 AU morning rise -4769 Aug 10 j 11:45 -4774 Feb 19 j 12:06 14°る35'33 morning rise 0ಂತಾ -4769 Dec 08 j 15:51 16°559'56 -4774 May 05 j 15:18 0°≈ retrograde 4°≈44'24 -4774 Jul 01 j 00:47 -4768 Feb 07 j 03:59 12°508'05 retrograde opposition 1°56'19 -4774 Aug 27 j 05:48 30°₹**⋜** min. Earth dist. -4768 Feb 08 j 06:42 11°959'32 4.38546 AU opposition -4774 Aug 29 j 18:42 29°る39'15 -2°-5'-50 direct -4768 Apr 09 j 19:49 7°906'39 min. Earth dist. -4774 Aug 28 j 14:11 29°₹48'58 4.04769 AU evening set -4768 Aug 14 j 19:14 25°500'55 direct -4774 Oct 26 j 21:08 24°정42'08 max. Earth dist. -4768 Aug 25 j 16:11 27°525'38 6.36300 AU -4774 Dec 24 j 11:42 0°≈ -4768 Aug 27 j 09:54 27°5048'50 evening set -4773 Mar 01 j 14:33 13°≈53'46 conjunction 1°25'06 -4768 Aug 27 j 09:53 27°5548'50 -4773 Mar 06 j 08:56 15°≈ minimum elong 1°25'20 -4768 Sep 06 j 05:50 $0^{\circ}\Omega$ conjunction -4773 Mar 15 j 06:33 17°≈04'04 -1°-21'-47 morning rise -4768 Sep 08 j 22:22 0°**Ω**35'44 minimum elong -4773 Mar 15 j 06:35 17°≈04'05 1°22'00 -4768 Nov 25 j 00:39 15°**Ω** max. Earth dist. -4773 Mar 17 j 03:24 17°≈30'08 6.08265 AU retrograde -4767 Jan 08 j 15:55 17°**Ω**57'24 morning rise -4773 Mar 29 j 00:15 20°≈15'06 -4767 Feb 23 j 03:25 15°R**Ω** -4773 May 12 j 19:27 0°\ opposition -4767 Mar 10 j 13:31 $13^{\circ}\Omega$ 05'52 2° 03'02 retrograde -4773 Aug 05 j 00:39 9°**)**(42'49 min. Earth dist. -4767 Mar 11 j 19:45 $12^{\circ}\Omega$ 56'15 4.33034 AU min. Earth dist. -4773 Oct 02 j 09:21 4°**升**46'46 4.12976 AU direct -4767 May 11 j 23:48 8°**Ω**06′59 opposition -4773 Oct 03 i 09:37 4°**)**(38'29 -1°-46'-43 -4767 Jul 22 i 09:19 $15^{\circ}\Omega$ -4773 Nov 16 i 11:32 30°R≈ evening set $-4767 \text{ Sep } 14 \text{ i } 20:29 \quad 26^{\circ} \Omega 11'10$ direct -4773 Dec 01 i 04:20 29°≈38'06 max. Earth dist. $-4767 \text{ Sep } 25 \text{ j } 18:47 \quad 28^{\circ} \Omega 39'34$ 6.28514 AU -4773 Dec 16 j 00:01 0°**)**€ -4772 Apr 06 j 02:20 18° ¥ 31'02 -4767 Sep 27 j 08:27 29° Ω 00'56 1°16'44 conjunction evening set $-4767 \text{ Sep } 27 \text{ j } 08:29 \quad 29^{\circ} \Omega 00'58$ minimum elong 1°16'53 -4772 Apr 19 j 20:45 21° ¥ 38'09 0°-55'-51 -4767 Oct 01 j 16:29 conjunction 0° m -4767 Oct 09 j 19:28 morning rise 1° m 50'27 minimum elong -4772 Apr 21 j 02:35 21° ¥ 55'04 6.18149 AU -4766 Feb 11 j 03:19 19° m 53'24 max. Earth dist. retrograde -4772 May 03 j 15:10 24° **∺**45'00 opposition -4766 Apr 13 j 07:45 15° m 00'18 1°33'23 morning rise -4772 May 27 j 12:17 0°**Υ** -4766 Apr 14 j 06:33 14° m 53'02 4.23426 AU min. Earth dist. -4772 Sep 06 j 02:29 13°**Υ**15'02 -4766 Jun 13 j 18:58 10° Mp 04'18 retrograde direct -4772 Nov 04 j 11:12 8°**Υ**13'41 0°-52'-14 -4766 Oct 16 j 14:57 28° m 27'10 opposition evening set -4772 Nov 03 j 22:40 8°**Υ**17'55 4.23488 AU -4766 Oct 23 j 07:30 min. Earth dist. 0∘**⊽** -4771 Jan 03 j 10:41 3°**Υ**10'52 -4766 Oct 28 j 06:04 direct max. Earth dist. 1°**♀**08'52 6.17949 AU -4771 May 11 j 04:14 21°**Υ**39'15 evening set conjunction -4766 Oct 29 j 05:08 1°**2**22'16 0°44'42 conjunction -4771 May 24 j 19:54 24°**Υ**'40'52 0°-12'-18 minimum elong -4766 Oct 29 j 05:12 1°**≏**22'18 0°44'43 -4771 May 24 j 19:56 24°**Y**40'53 0°12'13 morning rise -4766 Nov 10 j 20:15 4°**△**18'03 minimum elong behind sun begin -4771 May 24 j 14:31 24°**Υ**37'53 retrograde -4765 Mar 18 j 13:20 23°**♀**15'25 -4771 May 25 j 01:21 24°**Y**43'52 -4765 May 18 j 14:41 18°**♀**19'14 0°32'04 behind sun end opposition -4771 May 25 j 04:00 24°**Υ**'45'21 min. Earth dist. -4765 May 18 j 23:43 18°**2**16'19 4.12565 AU max. Earth dist. 6.28584 AU -4771 Jun 07 j 09:16 27°**Υ**41'13 -4765 Jul 17 j 19:11 13°**2**25'29 morning rise direct -4771 Jun 17 j 23:08 0°8 d -4765 Nov 06 j 11:58 29°**2**19'18 desc. node -4771 Sep 05 i 07:44 13°\(\delta\)39'53 -4765 Nov 09 i 10:35 asc. node 0°M -4771 Sep 23 i 13:55 15°₩ evening set -4765 Nov 18 i 20:43 2°M11'56 retrograde -4771 Oct 07 j 18:16 15° \$\frac{8}{2}19'39 -4765 Dec 01 i 16:57 -4771 Oct 21 j 21:01 15°R8 conjunction 5°M14'01 0°-3'-15 minimum elong -4771 Dec 06 j 08:06 10°\(\begin{align*} 22'15 & 0°15'59 \end{align*} \] -4765 Dec 01 i 16:57 5°M14'01 0°03'25 opposition min. Earth dist. -4771 Dec 06 j 10:37 10°\(\begin{align*} \delta 21'25 & 4.32931 \text{ AU} \end{align*} behind sun begin -4765 Dec 01 j 08:55 5°**M**₀09'17 direct -4770 Feb 05 j 14:34 5°**8**18'33 behind sun end -4765 Dec 02 j 00:59 5°M18'45 -4770 May 03 j 21:06 15°**8** max. Earth dist. -4765 Dec 01 j 17:03 5°M14'04 6.07848 AU morning rise -4770 Jun 13 j 14:34 23°**8**25'37 -4765 Dec 14 j 15:40 8°M17'35 evening set -4764 Jan 13 j 02:03 15° M -4770 Jun 26 j 22:19 26°**8**20'50 0°33'45 conjunction retrograde -4764 Apr 23 j 07:55 28°ML07'06 -4764 Jun 23 j 01:14 23° M.06'57 minimum elong -4770 Jun 26 j 22:16 26°\(\delta 20'48 \) 0°33'57 opposition 0°-43'-24 -4770 Jun 26 j 05:45 26°**8**11'45 min. Earth dist. -4764 Jun 22 j 15:22 23°M 10'12 4.04134 AU max. Earth dist. 6.36313 AU -4770 Jul 10 j 02:56 29°**8**14'23 direct -4764 Aug 20 j 21:03 18°M 13'58 morning rise -4770 Jul 13 j 14:44 Π $^{\circ}0$ -4764 Nov 20 j 19:06 0°**∡** -4770 Nov 07 j 16:00 16°**Ⅲ**21'43 -4764 Dec 22 j 23:43 retrograde evening set 7°**∡**'22'05 opposition -4769 Jan 06 j 15:49 11°**I**I27'44 1°17'19 min. Earth dist. -4769 Jan 07 j 09:06 11°**Ⅲ**22'06 4.38478 AU conjunction -4763 Jan 05 j 03:23 10°**х** 30'04 0°-51'-18 direct -4769 Mar 09 j 22:10 6°**Ⅲ**24'30 minimum elong -4763 Jan 05 j 03:19 10° **₹** 30'01 0°51'32 evening set -4769 Jul 15 j 15:00 24°**Ⅲ**19'34 max. Earth dist. -4763 Jan 06 j 04:22 10°**х** 44'58 6.01828 AU max. Earth dist. -4769 Jul 27 j 04:43 26°**Д**51'42 6.39143 AU -4763 Jan 18 j 10:28 13° ₹39'52 morning rise

-4763 Apr 09 j 03:02

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4763 in astronomical counting style is the year 4764 BCE in historical counting style. retrograde opposition -4763 May 30 j 14:14 3°る58'01 -4757 Jan 11 i 01:36 15° **I** 54'05 1°24'25 -4763 Jul 21 j 13:54 30°R ⊀ min. Earth dist. -4757 Jan 11 j 20:22 15°**II**48'00 4.38986 AU opposition -4763 Jul 29 j 18:22 28° ₹ 54'20 -1°-44'-34 -4757 Mar 14 j 10:33 10°**Д**51'02 direct -4757 Jul 20 ј 00:58 28°**Д**44'42 -4763 Jul 28 j 18:25 29° ₹02'25 4.01278 AU min. Earth dist. evening set -4763 Sep 25 j 20:26 23°**尽** 59'51 -4757 Jul 25 j 18:34 direct 0ಂತಾ -4763 Nov 27 j 05:00 -4757 Jul 31 j 09:51 0°₹ max. Earth dist. 1°5514'20 6.39204 AU -4762 Jan 28 j 15:44 13°**♂**18'28 evening set conjunction -4757 Aug 01 j 21:56 1°**9**34'11 1°12'47 -4762 Feb 11 j 02:49 16°**3**29'21 -1°-20'-42 conjunction minimum elong -4757 Aug 01 j 21:53 1°**9**34'09 1°13'01 -4762 Feb 11 j 02:47 16°**ට**29'20 minimum elong 1°20'56 morning rise -4757 Aug 14 j 15:51 4°9522'10 max. Earth dist. -4762 Feb 12 j 22:27 16°₹55'10 6.02268 AU retrograde -4757 Dec 13 j 02:11 21°524'54 -4762 Feb 24 j 16:48 19°る41'43 -4756 Feb 11 j 15:23 16°533'11 morning rise opposition 1°59'21 -4762 Apr 12 j 08:25 -4756 Feb 12 j 19:47 16°524'06 0°≈ min. Earth dist. 4.38169 AU retrograde -4762 Jul 06 j 02:18 9°≈49'05 direct -4756 Apr 14 j 08:11 11°531'58 opposition -4762 Sep 03 j 17:05 4°**≈**43'53 -2°-5'-48 evening set -4756 Aug 19 j 03:20 29°9526'48 min. Earth dist. -4762 Sep 02 j 12:22 4°≈53'41 4.05113 AU -4756 Aug 21 j 15:18 $0^{\circ}\Omega$ -4762 Oct 20 j 07:54 30°R♂ max. Earth dist. -4756 Aug 30 j 00:21 1°**Q**51'50 6.35505 AU direct -4762 Oct 31 j 19:35 29°₹46'21 -4762 Nov 12 j 08:17 0°**≈** conjunction -4756 Aug 31 j 17:28 2°Ω14'45 1°25'26 -4761 Feb 17 i 08:44 15°≈ minimum elong -4756 Aug 31 j 17:28 2°**Ω**14'45 1°25'39 evening set -4761 Mar 06 j 18:59 18°≈57'55 morning rise -4756 Sep 13 j 05:15 5°Ω01'43 -4756 Oct 31 i 13:56 $15^{\circ}\Omega$ conjunction -4761 Mar 20 i 11:32 22°≈08'09 -1°-19'-39 retrograde -4755 Jan 13 j 04:55 $22^{\circ}\Omega 27'53$ minimum elong -4761 Mar 20 j 11:35 22°≈08'11 1°19'49 opposition -4755 Mar 15 i 04:41 $17^{\circ}\Omega$ 36'15 $2^{\circ}01'03$ max. Earth dist. -4761 Mar 22 j 06:54 22°≈33'18 6.09043 AU min. Earth dist. -4755 Mar 16 j 10:02 $17^{\circ}\Omega$ 26'56 4.31872 AU -4761 Apr 03 j 05:54 25°≈19'03 -4755 Apr 05 j 19:04 15°RΩ morning rise -4761 Apr 24 j 00:04 0°**∀** -4755 May 16 j 11:54 $12^{\circ}\Omega$ 37'47 direct -4761 Aug 09 j 18:37 14°\ 40'31 -4755 Jun 25 j 19:43 15°**Ω** retrograde -4761 Oct 07 j 04:12 9° **€** 44'31 4.14088 AU -4755 Sep 15 j 23:21 min. Earth dist. 0° m -4761 Oct 08 j 04:06 9° **★** 36'21 -1°-40'-37 -4755 Sep 19 j 05:53 0° m 44'14 opposition evening set -4761 Dec 06 j 01:52 4° ₩ 35'31 -4755 Sep 30 j 04:46 3°m 13'29 direct max. Earth dist. 6.27079 AU -4760 Apr 11 j 03:53 23°**∺**25'46 evening set -4755 Oct 01 j 17:45 3° m 34'34 1°13'34 conjunction -4755 Oct 01 j 17:48 3° mp 34'35 -4760 Apr 24 j 22:25 26° ¥ 32'19 0°-50'-21 conjunction minimum elong 1°13'40 -4755 Oct 14 j 05:09 -4760 Apr 24 j 22:29 26° ¥ 32'22 0°50'24 6° m 24'49 minimum elong morning rise -4760 Apr 26 j 03:12 26° ¥ 48'36 6.19521 AU -4754 Feb 16 j 01:10 24° mp 35'10 max. Earth dist. retrograde -4760 May 08 j 16:21 29° **★** 38'23 -4754 Apr 18 j 04:31 19° m 41'45 1°26'25 morning rise opposition -4760 May 10 j 06:56 0°**Υ** min. Earth dist. -4754 Apr 19 j 02:40 19° m 34'41 4.21788 AU retrograde -4760 Sep 10 j 16:35 18°**Υ**00'27 direct -4754 Jun 18 j 12:26 14° m 46'05 -4760 Nov 09 j 01:14 12°**Υ**59'32 0°-42'-49 opposition -4754 Oct 07 j 03:20 0∘<u>ଫ</u> min. Earth dist. -4760 Nov 08 j 14:35 13°**Υ**03'07 4.24941 AU evening set -4754 Oct 21 j 04:34 3°**£**12'33 -4759 Jan 08 j 05:52 7°**Υ**56'27 direct -4759 May 16 j 00:19 26°**Υ**21'05 -4754 Nov 02 j 19:32 6°**♀**08'41 0°38'38 evening set conjunction -4754 Nov 02 j 19:35 6°**£**08'43 0°38'37 minimum elong -4759 May 29 j 15:03 29°**Υ**21'44 0°-5'-35 max. Earth dist. -4754 Nov 01 j 23:19 5°**≙**56'54 conjunction 6.16275 AU $-4759 \text{ May } 29 \text{ j } 15:03 \quad 29^{\circ} \Upsilon^2 21'44 \quad 0^{\circ} 05'30$ minimum elong morning rise -4754 Nov 15 j 11:33 9°**2**05'36 -4759 May 29 i 07:06 29°**Υ**17'21 behind sun begin retrograde -4753 Mar 23 j 15:26 28° **2**11'25 -4759 May 29 j 23:00 29°**Υ**26'07 behind sun end opposition -4753 May 23 j 16:27 23° **2**14'46 0°21'42 $-4759 \text{ May } 29 \text{ i } 19:21 \quad 29^{\circ} \Upsilon 24'05 \quad 6.29972 \text{ AU}$ max. Earth dist. min. Earth dist. -4753 May 23 j 22:26 23° **2**12'50 4.11005 AU -4759 Jun 01 i 12:07 0°8 direct -4753 Jul 22 j 14:52 18°**£**21'19 -4759 Jun 12 j 03:27 2°821'04 desc. node -4753 Sep 15 j 15:29 22° **2**57'06 morning rise asc. node -4759 Jul 15 j 11:06 9°**8**24'19 -4753 Oct 23 j 00:50 oom. -4759 Aug 15 j 14:51 15°8 -4753 Nov 23 j 17:10 evening set 7°M11'48 -4759 Oct 12 j 02:55 19°853'10 retrograde opposition -4759 Dec 10 j 18:53 14°856'10 0°25'31 conjunction -4753 Dec 06 j 14:21 10°ML14'53 0°-10'-28 -4759 Dec 10 j 07:19 15°₽**႘** minimum elong -4753 Dec 06 j 14:20 10°M 14'53 0°10'37 -4759 Dec 10 j 23:18 14°**8**54'42 4.34123 AU -4753 Dec 06 j 08:01 10°ML11'09 min. Earth dist. behind sun begin -4758 Feb 10 j 05:35 9°**8**52'21 -4753 Dec 06 j 20:39 10°M 18'37 direct behind sun end -4758 Apr 12 j 06:39 15°8 -4753 Dec 06 j 17:48 10°M 16'55 6.06555 AU max. Earth dist. -4758 Jun 18 j 04:36 27°**8**56'25 -4753 Dec 19 j 14:17 13°ML19'34 evening set morning rise -4758 Jun 27 j 14:41 -4753 Dec 26 j 17:41 15°M $0^{\circ}\Pi$ -4752 Mar 12 j 22:42 0°**∡**7 conjunction -4758 Jul 01 j 11:07 0°**Д**50'43 0°39'39 retrograde -4752 Apr 28 j 14:28 3°**х** 15′35 minimum elong -4758 Jul 01 j 11:04 0°**Ⅲ**50'41 0°39'52 -4752 Jun 14 j 16:58 30°RML max. Earth dist. -4758 Jun 30 j 16:54 0°**Ⅱ**40'43 6.37196 AU opposition -4752 Jun 28 j 06:06 28°M14'55 0°-53'-38 -4758 Jul 14 j 14:11 3°**Ⅱ**43'18 min. Earth dist. -4752 Jun 27 j 17:46 28° ML 19'00 4.03259 AU morning rise

direct

-4752 Aug 25 j 23:00 23°M21'54

-4758 Nov 11 j 23:35 20°**Д**47'42

retrograde

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 14 Attention, astronomical year style is used: The year -4752 in astronomical counting style is the year 4753 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	ne year -4752	in astronomical cou	inting style is the year	4753 BCE in historical	counting style.	
	-4752 Oct 31 j 02:43	0° ∡ ¹		conjunction	-4746 Jul 05 j 20:18	5° Ⅱ 12'49	0°45'08
evening set	-4752 Dec 28 j 02:28	12° ∡ ³32'39		minimum elong	-4746 Jul 05 j 20:14	5° Ⅱ 12'47	0°45'21
				max. Earth dist.	-4746 Jul 04 j 21:48	5° Ⅱ 00′29	6.37711 AU
conjunction	-4751 Jan 10 j 07:20	15° ∡ ¹41'17	0°-56'-59	morning rise	-4746 Jul 18 j 22:08	8° Ⅱ 04'40	
minimum elong	-4751 Jan 10 j 07:16		0°57'14	retrograde	-4746 Nov 16 j 05:30		
max. Earth dist.	-4751 Jan 11 j 13:19		6.01473 AU	opposition	-4745 Jan 15 j 08:56		1°30'54
morning rise	-4751 Jan 23 j 15:25	18° ∡ ′51'42		min. Earth dist.	-4745 Jan 16 j 05:38		4.39012 AU
_	-4751 Mar 15 j 02:15	0° ਰ		direct	-4745 Mar 18 j 19:12		
retrograde	-4751 Jun 04 j 20:53	9° る 10'43			-4745 Jul 10 j 00:06	0°9	
opposition	-4751 Aug 03 j 22:18		-1°-50'-21	evening set	-4745 Jul 24 j 08:38	3°505'46	6 20 722 A I I
min. Earth dist.	-4751 Aug 02 j 20:49		4.01534 AU	max. Earth dist.	-4745 Aug 04 j 15:46	5° © 34'41	6.38723 AU
direct	-4751 Sep 09 j 07:12	30°R ✓ 29° ✓ 11'58		agniumation	4745 Aug 06: 04:26	5° © 55'00	1015151
direct	-4751 Sep 30 j 23:09 -4751 Oct 22 j 15:15	29 メ ・11 38		conjunction minimum elong	-4745 Aug 06 j 04:36 -4745 Aug 06 j 04:33		1°16'06
evening set	-4750 Feb 02 j 21:45			morning rise	-4745 Aug 18 j 21:22	8°942'43	1 1000
evening set	-4/30 FC0 02 j 21.43	18 030 04		retrograde	-4745 Dec 17 j 11:32		
conjunction	-4750 Feb 16 j 09:31	21º 云 40'55	-1°-22'-28	opposition	-4744 Feb 16 j 02:04		2°01'41
minimum elong	-4750 Feb 16 j 09:29			min. Earth dist.	-4744 Feb 17 j 07:18		
max. Earth dist.	-4750 Feb 18 j 05:29			direct	-4744 Apr 18 j 17:57		, 22, 110
morning rise	-4750 Mar 02 j 00:22				-4744 Aug 05 j 14:56	0°N	
<i>y</i> 23	-4750 Mar 24 j 07:43	0° ≈		evening set	-4744 Aug 23 j 11:06	3° £ 53′17	
retrograde	-4750 Jul 11 j 00:25	14° ≈ 54'54		max. Earth dist.	-4744 Sep 03 j 06:02		6.34162 AU
min. Earth dist.	-4750 Sep 07 j 10:18	9° ≈ 59'43	4.06408 AU		1 7		
opposition	-4750 Sep 08 j 15:46	9° ≈ 49'39	-2°-4'-50	conjunction	-4744 Sep 05 j 00:34	6° Ω 41'29	1°25'14
direct	-4750 Nov 05 j 19:55	4° ≈ 51'38		minimum elong	-4744 Sep 05 j 00:34	6° Ω 41'30	1°25'26
	-4749 Jan 29 j 21:55	15° ≈		morning rise	-4744 Sep 17 j 12:12	9° Ω 28'53	
evening set	-4749 Mar 11 j 22:53	23° ≈ 59'40			-4744 Oct 12 j 23:20		
				retrograde	-4743 Jan 17 j 21:41		
conjunction	-4749 Mar 25 j 16:00	27° ≈ 09′23	-1°-16'-59	opposition	-4743 Mar 19 j 21:06		1°58'20
minimum elong	-4749 Mar 25 j 16:04			min. Earth dist.	-4743 Mar 21 j 02:15		4.30219 AU
max. Earth dist.	-4749 Mar 27 j 10:55		6.10707 AU	direct	-4743 May 21 j 01:25		
	-4749 Apr 07 j 00:13	0° ∀			-4743 Aug 30 j 09:15	0° m	
morning rise	-4749 Apr 08 j 10:23	0°) 19'34		evening set	-4743 Sep 23 j 16:34	5° m 21'57	
retrograde	-4749 Aug 14 j 11:37			max. Earth dist.	-4743 Oct 04 j 18:50	7° m 53'43	6.25273 AU
opposition	-4749 Oct 12 j 20:11				4742.0 . 06:04.40	00 1 2100	1000151
min. Earth dist.	-4749 Oct 11 j 22:27		4.15921 AU	conjunction	-4743 Oct 06 j 04:49	8° Mp 13'09	
direct	-4749 Dec 10 j 22:47 -4748 Apr 16 j 02:04	9°\(\frac{1}{2}26'38		minimum elong	-4743 Oct 06 j 04:52	8° Mp 13'11	1°09'58
evening set	-4748 Apr 16 j 02:04 -4748 Apr 24 j 02:23			morning rise retrograde	-4743 Oct 18 j 16:31 -4742 Feb 20 j 23:53	29° Mp 23'11	
	-4/46 Apr 24 J 02.23	0 1		opposition	-4742 Feb 20 j 23:35 -4742 Apr 23 j 03:15		1°18'42
conjunction	-4748 Apr 29 j 20:19	1° Y 17'40	0°-44'-41	min. Earth dist.	-4742 Apr 23 j 22:54		4.19965 AU
minimum elong	-4748 Apr 29 j 20:23	1° Υ 17'40	0°44'42	direct	-4742 Jun 23 j 05:49	19° m 34'09	4.17703 AC
max. Earth dist.	-4748 Apr 30 j 21:39	1° Υ 31'56	6.21364 AU	uncer	-4742 Sep 19 j 08:38	0∘ ʊ	
morning rise	-4748 May 13 j 13:47	4° Υ 22'44	0.21301110	evening set	-4742 Oct 25 j 20:44	ა <u> </u>	
retrograde	-4748 Sep 15 j 00:58	22° Y '35'57			.,		
opposition	-4748 Nov 13 j 11:34	17° Ƴ 35'34	0°-33'-29	conjunction	-4742 Nov 07 j 12:21	11° ≏ 01'53	0°32'10
min. Earth dist.	-4748 Nov 13 j 02:32	17° Ƴ 38'37	4.26626 AU	minimum elong	-4742 Nov 07 j 12:24		0°32'07
direct	-4747 Jan 12 j 20:19	12° Y ′32'17		max. Earth dist.	-4742 Nov 06 j 19:01	10° ≏ 51'44	6.14603 AU
	-4747 May 16 j 15:14	9° 8		morning rise	-4742 Nov 20 j 05:30	14° £ 00'00	
evening set	-4747 May 20 j 15:54	0° 8 52'52			-4741 Feb 10 j 03:07	0° M	
asc. node	-4747 May 25 j 22:49	2° 8 02'41		retrograde	-4741 Mar 28 j 20:25	3°M14′02	
					-4741 May 15 j 07:02	30°₽ ₽	
conjunction	-4747 Jun 03 j 05:41	3° 8 52'34	0°01'01	opposition	-4741 May 28 j 20:31	28° ≏ 16'44	0°10'57
minimum elong	-4747 Jun 03 j 05:40	3° 8 52'33	0°01'08	min. Earth dist.	-4741 May 28 j 23:28		4.09615 AU
behind sun begin	-4747 Jun 02 j 21:24	3° 8 48'00		desc. node	-4741 Jul 25 j 08:23		
behind sun end	-4747 Jun 03 j 13:55	3° 8 57'06		direct	-4741 Jul 27 j 14:38		
max. Earth dist.	-4747 Jun 03 j 06:06	3° 8 52'46	6.31372 AU	•	-4741 Oct 02 j 10:39	0°M	
morning rise	-4747 Jun 16 j 16:52	6° 8 50'49		evening set	-4741 Nov 28 j 15:27		
ratra ar- 1-	-4747 Jul 25 j 17:15	15° 8			-4741 Dec 10 j 02:29	15° M ₊	
retrograde	-4747 Oct 16 j 09:48	24° 8 17'24 19° 8 20'59	0°34'33	aaniumatiam	4741 Dag 11 : 12:40	150m 21100	0°-17'-42
opposition min. Earth dist.	-4747 Dec 15 j 02:10	19° 6 20′39		conjunction	-4741 Dec 11 j 13:49 -4741 Dec 11 j 13:47	15°M21'00 15°M20'59	0°-17'-42 0°17'52
mm. Earth dist.	-4747 Dec 15 j 09:38 -4746 Jan 24 j 04:22	19°018'32	4.35132 AU	minimum elong max. Earth dist.	-4741 Dec 11 j 13:47	15°IL20'59	6.05583 AU
direct	-4746 Feb 14 j 17:22	13 KO 14° 8 17'12		morning rise	-4741 Dec 11 j 22.32	18°M26'34	0.03303 AU
	-4746 Mar 08 j 10:25	15°8			-4740 Feb 15 j 12:34	0° ₹	
	-4746 Jun 11 j 20:52	0° I		retrograde	-4740 May 03 j 22:23	8° × ⁷ 27'12	
evening set	-4746 Jun 22 j 15:06	2° Ⅱ 19'16		opposition	-4740 Jul 03 j 11:45	3° ₹ 25'57	-1°-3'-31
J	<i>J</i>			* *	- 3	1	

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4740 in astronomical counting style is the year 4741 BCE in historical counting style. 3°**∡**30'49 4.02816 AU min. Earth dist. -4740 Jul 02 j 21:06 evening set -4734 Jun 27 i 02:30 6°**Ⅱ**44'15 max. Earth dist. -4740 Aug 01 j 07:25 30°RML -4734 Jul 09 j 05:11 9°**Д**23'18 6.38050 AU -4740 Aug 31 j 01:43 28° ML32'49 direct -4740 Sep 29 j 15:15 -4734 Jul 10 j 06:22 9°**Ⅲ**37′07 0°**∡** conjunction 0°50'26 -4739 Jan 02 j 06:12 17°**х** 44'31 -4734 Jul 10 j 06:18 9°**Ⅲ**37′05 0°50'39 evening set minimum elong -4734 Jul 23 j 06:54 12°**Ⅲ**28'18 morning rise -4734 Nov 20 j 14:28 29°**Д**30'51 conjunction -4739 Jan 15 j 11:52 20° ₹ 53'28 -1°-2'-14 retrograde -4739 Jan 15 j 11:48 20°**尽** 53'26 minimum elong -4733 Jan 19 j 18:17 24°**Ⅲ**38'00 1°36'59 1°02'29 opposition -4739 Jan 16 j 19:42 21°**⊀** 12'26 max. Earth dist. 6.01546 AU min. Earth dist. -4733 Jan 20 j 17:14 24°**II**30'36 4.38934 AU morning rise -4739 Jan 28 j 21:06 24° **₹** 04'16 direct -4733 Mar 23 j 06:37 19°**Ⅲ**35'22 -4739 Feb 23 j 14:42 0°궁 -4733 Jun 22 j 21:03 0ಂತಾ -4733 Jul 28 j 17:36 retrograde -4739 Jun 09 j 23:47 14°る22'03 evening set 7°9529'57 min. Earth dist. -4739 Aug 07 j 21:33 9°る26'56 4.02130 AU max. Earth dist. -4733 Aug 08 j 21:24 9°957'20 6.38214 AU opposition -4739 Aug 09 j 00:55 9°る17'40 -1°-55'-15 direct -4739 Oct 06 j 00:47 4°る22'27 conjunction -4733 Aug 10 j 12:27 10°518'54 1°18'34 evening set -4738 Feb 08 j 02:54 23°♂38'59 minimum elong -4733 Aug 10 j 12:25 10°9518'53 1°18'48 morning rise -4733 Aug 23 j 04:21 13°906'27 conjunction -4738 Feb 21 j 15:38 26° ₹ 49'44 -1°-23'-37 -4733 Dec 09 j 06:53 $0^{\circ}\Omega$ minimum elong -4738 Feb 21 j 15:38 26°る49'44 1°23'51 retrograde -4733 Dec 21 j 22:57 0°**Ω**15'13 max. Earth dist. -4738 Feb 23 j 13:15 27°る16'35 6.04128 AU -4732 Jan 03 j 15:25 30° R 55 morning rise -4738 Mar 07 j 07:00 0°≈01'45 opposition -4732 Feb 20 j 14:40 25°523'47 2°03'24 -4738 Mar 07 i 03:59 0°≈ min. Earth dist. -4732 Feb 21 i 20:02 25° \$\sigma 14'24 4.36355 AU -4738 May 19 i 07:37 15°≈ direct -4732 Apr 23 i 04:57 20°523'19 -4738 Jul 15 j 23:27 19°≈56'54 -4732 Jul 19 j 01:36 $0^{\circ}\Omega$ retrograde min. Earth dist. -4738 Sep 12 j 08:59 15°≈01'17 4.07786 AU -4732 Aug 27 j 20:02 8°**Ω**22'34 evening set -4738 Sep 12 j 12:44 15°R≈ max. Earth dist. -4732 Sep 07 j 16:35 10° Ω48'17 6.33007 AU opposition -4738 Sep 13 j 13:01 14°≈51'42 -2°-3'00 -4738 Nov 10 j 20:22 -4732 Sep 09 j 09:08 $11^{\circ}\Omega$ 11'03 1° 24'34 direct 9°≈53'13 conjunction -4737 Jan 07 j 16:35 15°≈ -4732 Sep 09 j 09:09 11°**Ω**11'04 minimum elong 1°24'45 -4737 Mar 17 j 01:25 28°≈57'37 -4732 Sep 21 j 20:19 13°Ω58'47 morning rise evening set -4737 Mar 21 j 14:18 -4732 Sep 26 j 10:23 15°**Ω** 0°**₩** -4732 Dec 20 j 21:51 0° m -4737 Mar 30 j 18:56 2°\cdot\06'49 -1°-13'-50 conjunction -4731 Jan 22 j 14:42 1° Mp 37'20 retrograde -4737 Mar 30 j 18:59 2°\cdot\06'51 1°13'59 -4731 Feb 24 j 13:07 30°RΩ minimum elong -4737 Apr 01 j 12:03 2°**升**30′27 6.12298 AU -4731 Mar 24 j 14:43 $26^{\circ}\Omega 45'28$ $1^{\circ}54'52$ max. Earth dist. opposition -4737 Apr 13 j 13:31 5°**₩**16'21 -4731 Mar 25 j 18:56 26° **Ω**36'31 4.28869 AU morning rise min. Earth dist. -4737 Aug 19 j 01:41 24° **★** 19'34 -4731 May 25 j 16:00 $21^{\circ}\Omega$ 47'53 retrograde direct opposition -4737 Oct 17 j 11:08 19° **∺** 16'11 -1°-26'-48 -4731 Aug 11 j 19:57 0° M min. Earth dist. -4737 Oct 16 j 14:14 19°**米**23'18 4.17569 AU evening set -4731 Sep 28 j 03:47 10° m 00'47 direct -4737 Dec 15 j 17:05 14° **€** 14'37 max. Earth dist. -4731 Oct 09 j 07:10 12° m 33'44 6.23853 AU -4736 Apr 07 j 16:50 $0^{\circ}\Upsilon$ -4736 Apr 20 j 23:33 2°Y55'58 -4731 Oct 10 j 16:06 12° M 52'38 1°05'45 evening set conjunction -4731 Oct 10 j 16:10 12° m 52'40 minimum elong -4736 May 04 j 17:27 6°Υ00'50 0°-38'-47 -4731 Oct 23 j 04:28 15° m 44'39 conjunction morning rise -4736 May 04 j 17:30 6°Υ00'52 0°38'46 -4730 Jan 03 j 06:03 minimum elong -4736 May 05 j 14:28 -4730 Feb 25 i 22:29 max. Earth dist. 6°**Y**12'38 6.22960 AU retrograde 4°**£**10'50 morning rise -4736 May 18 j 10:22 9°**Υ**04'58 -4730 Apr 22 i 09:59 30°R M $-4736 \text{ Sep } 19 \text{ j } 12:03 \quad 27^{\circ} \Upsilon 10'32$ retrograde opposition -4730 Apr 28 i 02:06 29° m 16'36 1°10'31 -4736 Nov 17 j 22:00 22°**Υ**10'44 0°-23'-59 opposition min. Earth dist. -4730 Apr 28 j 19:08 29° m 11'09 4.18572 AU min. Earth dist. -4736 Nov 17 j 16:17 22°**Υ**12'39 4.28024 AU direct -4730 Jun 28 i 00:15 24° m 21'45 direct -4735 Jan 17 j 12:11 17°**Υ**'07'16 -4730 Aug 29 j 08:11 0∘⊽ -4735 Apr 04 j 22:18 25°**Υ**07'33 -4730 Oct 30 j 12:05 12°**2**54'55 asc. node evening set -4735 Apr 29 j 23:41 0°8 evening set -4735 May 25 j 07:46 5°**8**24'49 conjunction -4730 Nov 12 j 04:36 15°**£**52'57 0°25'34 minimum elong -4730 Nov 12 j 04:38 15°**£**52'58 0°25'30 conjunction -4735 Jun 07 j 20:39 8°**8**23'40 0°07'34 max. Earth dist. -4730 Nov 11 j 16:11 15°**£**45'40 6.13386 AU minimum elong -4735 Jun 07 j 20:38 8°**8**23'40 0°07'42 morning rise -4730 Nov 24 j 22:33 18°**♀**52'00 -4735 Jun 07 j 13:14 8°819'35 -4729 Jan 15 j 12:43 behind sun begin 0°M -4735 Jun 08 j 04:03 8°**8**27'44 -4729 Apr 02 j 23:31 8°M12'28 behind sun end retrograde -4735 Jun 07 j 17:48 8°**8**22'07 -4729 Jun 02 j 22:38 3°M14'41 0°00'19 max. Earth dist. 6.32473 AU opposition -4735 Jun 21 j 06:40 11°**8**21'01 morning rise min. Earth dist. -4729 Jun 02 j 23:18 3°**™**14'28 4.08683 AU -4735 Jul 08 j 04:21 15°**8** desc. node -4729 Jun 04 j 13:31 3° ML02'03 retrograde -4735 Oct 20 j 16:09 28°843'08 -4729 Jun 30 j 07:07 30°**₹**Ω opposition -4735 Dec 19 j 10:31 23°847'13 0°43'27 direct -4729 Aug 01 j 13:15 28°**£**21'35 min. Earth dist. -4735 Dec 19 j 19:28 23°**8**44'17 4.35882 AU -4729 Sep 02 j 10:35 0° M -4734 Feb 19 j 03:47 18°843'29 -4729 Nov 23 j 18:30 15°M direct -4734 May 25 j 23:20 -4729 Dec 03 j 12:13 17°ML16'57 evening set

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 16

•	ical year style is used: Th		•	/ /			ige 16
conjunction	-4729 Dec 16 j 11:20	-		mining style is the year	-4723 Jun 21 j 23:01		•
minimum elong	-4729 Dec 16 j 11:18		0°24'51	morning rise	-4723 Jun 25 j 19:38		
max. Earth dist.	-4729 Dec 16 j 22:38		6.05001 AU	morning risc	-4723 Sep 09 j 10:29	0°II	
morning rise	-4729 Dec 29 j 13:34		0.03001710	retrograde	-4723 Oct 25 j 01:10	3° П 09'37	
morning rise	-4728 Jan 27 j 02:13	0° √		retrograde	-4723 Dec 10 j 00:59		
retrograde	-4728 May 09 j 00:46	13° х 31'39		opposition	-4723 Dec 23 j 19:14		0°52'04
opposition	-4728 Jul 08 j 13:46	8° ₹ 29'52	-1°-12'-39	min. Earth dist.	-4723 Dec 24 j 07:04		4.36363 AU
min. Earth dist.	-4728 Jul 07 j 20:16	8° ∡ ³35'41	4.02658 AU	direct	-4722 Feb 23 j 16:25		
direct	-4728 Sep 05 j 00:47	3° ∡ ³36'31			-4722 May 06 j 11:17	0°Щ	
evening set	-4727 Jan 07 j 06:51			evening set	-4722 Jul 01 j 14:00	11° Ⅱ 10′34	
C	J			C	ž		
conjunction	-4727 Jan 20 j 13:35	25° ₹ 57'52	-1°-6'-52	conjunction	-4722 Jul 14 j 16:42	14° Ⅱ 02'51	0°55'26
minimum elong	-4727 Jan 20 j 13:32		1°07'07	minimum elong	-4722 Jul 14 j 16:38		0°55'39
max. Earth dist.	-4727 Jan 22 j 00:56	26° х 18′53	6.01806 AU	max. Earth dist.	-4722 Jul 13 j 13:56	13° ∐ 48′10	6.38201 AU
morning rise	-4727 Feb 02 j 23:33	29° ₹ 08'52		morning rise	-4722 Jul 27 j 15:52	16° Ⅱ 53′26	
	-4727 Feb 06 j 14:30	ರ°0			-4722 Oct 04 j 10:23	0°€	
retrograde	-4727 Jun 15 j 00:55	19° る 24'50		retrograde	-4722 Nov 24 j 21:56	3°955'47	
opposition	-4727 Aug 13 j 23:53	14° る 20'12	-1°-59'-6		-4721 Jan 16 j 18:41	30°Ŗ Ⅱ	
min. Earth dist.	-4727 Aug 12 j 20:55	14° る 29'20	4.02787 AU	opposition	-4721 Jan 24 j 04:07	29° Ⅱ 03'10	1°42'31
direct	-4727 Oct 11 j 00:37	9° る 24'35		min. Earth dist.	-4721 Jan 25 j 03:18	28° ∏ 55'42	4.38786 AU
evening set	-4726 Feb 13 j 04:44	28° る 39'39		direct	-4721 Mar 27 j 16:29	24° Ⅱ 00'45	
	-4726 Feb 18 j 22:09	0° ≈			-4721 Jun 02 j 16:42	0ಂ ತಾ	
				evening set	-4721 Aug 02 j 02:52	11° © 55'39	
conjunction	-4726 Feb 26 j 18:10	1° ≈ 50′16	-1°-24'-6	max. Earth dist.	-4721 Aug 13 j 05:29	14° 5 22'38	6.37766 AU
minimum elong	-4726 Feb 26 j 18:10	1° ≈ 50′16	1°24'19				
max. Earth dist.	-4726 Feb 28 j 15:37	2° ≈ 16'55	6.05097 AU	conjunction	-4721 Aug 14 j 20:38	14° 5 344'19	1°20'49
morning rise	-4726 Mar 12 j 10:14	5° ≈ 02'05		minimum elong	-4721 Aug 14 j 20:36	14° 5 344'18	1°21'04
	-4726 Apr 26 j 20:09	15° ≈		morning rise	-4721 Aug 27 j 11:35	17° © 31'39	
retrograde	-4726 Jul 20 j 17:21	24° ≈ 51′04			-4721 Oct 30 j 08:20	$0^{\circ}\Omega$	
min. Earth dist.	-4726 Sep 17 j 02:32	19° ≈ 55'35	4.08978 AU	retrograde	-4721 Dec 26 j 11:17	4° Ω 43'04	
opposition	-4726 Sep 18 j 06:30	19° ≈ 46′02	-2°00'-22		-4720 Feb 24 j 01:37	30° ₹ 5	
	-4726 Nov 04 j 11:02	15°R≈		opposition	-4720 Feb 25 j 03:51		2°04'22
direct	-4726 Nov 15 j 15:23	14° ≈ 47′06		min. Earth dist.	-4720 Feb 26 j 09:58		4.35630 AU
	-4726 Nov 26 j 22:04	15° ≈		direct	-4720 Apr 27 j 18:09		
	-4725 Mar 05 j 02:15	0°) €			-4720 Jun 27 j 23:01	0 \circ Ω	
evening set	-4725 Mar 22 j 01:13	3°) 48′55		evening set	-4720 Sep 01 j 04:38		
					-4720 Sep 10 j 17:23		
conjunction	-4725 Apr 04 j 19:01		-1°-10'-15	max. Earth dist.	-4720 Sep 12 j 00:22	15° {\! 17'26	6.32039 AU
minimum elong	-4725 Apr 04 j 19:05	6°) € 57'43	1°10'23				
max. Earth dist.	-4725 Apr 06 j 08:36	7°) 19'14	6.13615 AU	conjunction	-4720 Sep 13 j 17:15		1°23'23
morning rise	-4725 Apr 18 j 13:44	10°) €06'40		minimum elong	-4720 Sep 13 j 17:16	15° Ω 40'27	1°23'34
retrograde	-4725 Aug 23 j 15:47	29°) (02'22	10.101.15	morning rise	-4720 Sep 26 j 04:21	18° Ω 28'29	
opposition	-4725 Oct 21 j 23:47	23°) 59'25	-1°-19'-17		-4720 Nov 21 j 19:26	0° m	
min. Earth dist.	-4725 Oct 21 j 05:47	24°) (05'32	4.18868 AU	retrograde	-4719 Jan 27 j 06:25	6° Mp 12'10	1050140
direct	-4725 Dec 20 j 10:38	18°) 57′27		opposition	-4719 Mar 29 j 07:59	1° Mp 19'57	1°50'40
	-4724 Mar 21 j 06:42	0°Υ		min. Earth dist.	-4719 Mar 30 j 10:28	1° Tp 11'32	4.27701 AU
evening set	-4724 Apr 25 j 19:04	7° Ƴ 36'11		T'	-4719 Apr 08 j 22:43	30°R€	
i	4724 M 00 : 12.46	1000040127	0°-32'-45	direct	-4719 May 30 j 05:58	26° Ω 22'42	
conjunction	-4724 May 09 j 12:46	10° Y 40′27			-4719 Jul 19 j 06:42	0° Т р	
minimum elong max. Earth dist.	-4724 May 09 j 12:49 -4724 May 10 j 07:27	10° Y 40'28 10° Y 50'54	0°32'44 6.24163 AU	evening set max. Earth dist.	-4719 Oct 02 j 14:11	14° Mp 37'27 17° Mp 12'58	6 22505 ATT
		10° γ 30′34 13° γ 43'49	0.24103 AU	max. Earth dist.	-4719 Oct 13 j 21:22	17 1 1 1 2 38	6.22585 AU
morning rise	-4724 May 23 j 04:59			. ,.	4710 0 4 15 : 02 54	170 m- 20150	1001114
. 1	-4724 Aug 21 j 22:10	0°8		conjunction	-4719 Oct 15 j 02:54		1°01'14
retrograde	-4724 Sep 23 j 20:20	1° 8 43'12		minimum elong	-4719 Oct 15 j 02:58	17° Mp 30'00	1°01'18
	-4724 Oct 26 j 14:25	30°RΥ 26°W42159	0°-14'-30	morning rise	-4719 Oct 27 j 15:36	20° m/22'43 0° <u>₽</u>	
opposition	-4724 Nov 22 j 07:25	26° Y 43'58			-4719 Dec 11 j 10:06		
min. Earth dist.	-4724 Nov 22 j 02:59	26° Y 45'27 21° Y 40'23	4.29042 AU	retrograde	-4718 Mar 02 j 20:24	8° £ 55'32	1001152
direct	-4723 Jan 22 j 00:05	21° \gamma 40'23 22° \gamma 27'06		opposition	-4718 May 02 j 23:40	4° Ω 00'52	1°01'53
asc. node	-4723 Feb 13 j 11:37	0° 8		min. Earth dist.	-4718 May 03 j 15:28	3° £ 55'49	4.17262 AU
avaning sat	-4723 Apr 11 j 10:08			direct	-4718 Jun 08 j 19:32	30°₹∭0 20°™06'10	
evening set	-4723 May 29 j 22:58	9° 8 56'08		direct	-4718 Jul 02 j 18:36	29° Mp 06'19	
agniumation	4722 Jun 12: 10:40	12° 8 54'13	0°13'58	ovenina act	-4718 Jul 26 j 13:51	0° ჲ 17° ჲ 42'01	
conjunction	-4723 Jun 12 j 10:40 -4723 Jun 12 j 10:39	12° 6 54'13	0°13′58 0°14′08	evening set	-4718 Nov 04 j 02:46	1/ ==4201	
minimum elong	-4/23 Juli 12 J 10:39		0 14 00				
	4723 Jun 12:06:40	120152106		conjunction	4718 Nov. 16: 10.50	20°.0 4015 €	0018150
behind sun begin	-4723 Jun 12 j 06:49	12° 8 52'06		conjunction	-4718 Nov 16 j 19:56		0°18'50
behind sun end max. Earth dist.	-4723 Jun 12 j 14:29	12° 8 56'19	6.33239 AU	conjunction minimum elong max. Earth dist.	-4718 Nov 16 j 19:56 -4718 Nov 16 j 19:58 -4718 Nov 16 j 09:02	20° ≏ 40'56	0°18'50 0°18'47 6.12148 AU

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4718 in astronomical counting style is the year 4719 BCE in historical counting style. -4718 Nov 29 i 15:05 23°**£**40'59 asc. node -4712 Dec 23 j 20:53 28° Υ 05'09 morning rise -4718 Dec 27 j 11:55 direct -4711 Jan 26 j 16:54 26° Υ 19'23 o°m. -4717 Apr 08 j 00:28 13°ML08'03 -4711 Mar 18 j 06:59 retrograde 0°8 -4711 Jun 03 j 16:04 14°**8**32'29 -4717 Apr 15 j 06:06 13°ML03'06 desc. node evening set -4711 Jun 05 j 18:24 15°**8** -4717 Jun 07 j 23:25 opposition 8°M09'41 0°-10'-16 -4717 Jun 07 j 20:54 min. Earth dist. 8°M10'30 4.07618 AU -4711 Jun 17 j 02:48 17°**8**29'42 0°20'26 direct -4717 Aug 06 j 09:13 3°M16'38 conjunction -4711 Jun 17 j 02:46 17°**8**29'41 -4717 Nov 06 j 14:13 15°**™** minimum elong 0°20'36 -4711 Jun 16 j 18:42 17°**8**25'15 evening set -4717 Dec 08 j 08:25 22°ML14'41 max. Earth dist. 6.34315 AU morning rise -4711 Jun 30 j 10:17 20°**8**25'17 conjunction -4717 Dec 21 j 08:42 25°M20'07 0°-31'-24 -4711 Aug 16 j 06:23 $0^{\circ}\Pi$ -4717 Dec 21 j 08:39 25°M20'05 -4711 Oct 29 j 08:55 7°**Ⅲ**39'49 minimum elong 0°31'37 retrograde -4717 Dec 22 j 00:19 25°M29'24 -4711 Dec 28 j 05:39 2°**I**I44'54 1°00'28 max. Earth dist. 6.04205 AU opposition morning rise -4716 Jan 03 j 11:54 28°M27'15 min. Earth dist. -4711 Dec 28 j 17:55 2°**Ц**40'53 4.37274 AU -4716 Jan 10 j 01:46 0°**∡**¹ -4710 Jan 19 j 12:13 30°R₩ retrograde -4716 May 14 j 05:34 18° ₹35'00 direct -4710 Feb 28 j 04:57 27°**8**41'26 opposition -4716 Jul 13 j 15:32 13°**х** 32'44 -1°-21'-15 -4710 Apr 09 j 07:16 $\Pi^{\circ}0$ min. Earth dist. -4716 Jul 12 j 21:19 13°**√**38'48 4.02219 AU evening set -4710 Jul 06 j 02:05 15°**Д**39'03 direct -4716 Sep 10 j 00:37 8°**₹**39'11 max. Earth dist. -4710 Jul 17 j 22:02 18°**Ⅱ**14'26 6.38875 AU evening set -4715 Jan 12 j 08:26 27° ₹ 52'59 -4715 Jan 21 j 06:38 conjunction -4710 Jul 19 j 03:13 18°**Д**30'27 1°00'08 minimum elong -4710 Jul 19 і 03:09 18°**Д**30'25 conjunction -4715 Jan 25 i 16:06 1°る02'41 -1°-11'-1 morning rise -4710 Aug 01 i 01:08 21°**Д**20'13 minimum elong -4715 Jan 25 i 16:03 1°**る**02'39 1°11'16 -4710 Sep 12 i 02:31 0ಂಣ max. Earth dist. -4715 Jan 27 j 05:00 1°る24'37 6.01739 AU retrograde -4710 Nov 29 j 07:16 8°9520'56 -4715 Feb 08 j 03:11 4°る14'08 -4709 Jan 28 j 14:40 3°\$28'36 1°47'23 morning rise opposition -4715 Jun 20 j 01:35 24°る29'13 min. Earth dist. -4709 Jan 29 j 15:39 3°520'34 4.39190 AU retrograde opposition -4715 Aug 18 j 23:13 19°る24'25 -2°-2'-8 -4709 Feb 27 j 14:12 30°R **Ⅱ** -4715 Aug 17 j 18:59 19°**궁**34'00 4.03126 AU -4709 Apr 01 j 05:43 28°**Ц**26'29 min. Earth dist. direct -4715 Oct 15 j 22:48 14°る28'23 -4709 May 04 j 00:46 direct 0ಂತಾ -4714 Feb 02 j 04:01 -4709 Aug 06 j 10:47 16°5519'34 0°≈ evening set -4714 Feb 18 j 08:35 max. Earth dist. -4709 Aug 17 j 12:02 18°9545'53 evening set 3°≈43'25 6.37851 AU -4709 Aug 19 j 03:34 19°507'46 1°22'34 -4714 Mar 03 j 22:49 6°≈54'05 -1°-23'-58 conjunction conjunction -4709 Aug 19 j 03:32 19°507'45 -4714 Mar 03 j 22:50 minimum elong 6°≈54'05 1°24'10 minimum elong 1°22'47 -4714 Mar 05 j 19:19 -4709 Aug 31 j 17:31 21°554'41 max. Earth dist. 7°≈20'08 6.05791 AU morning rise -4714 Mar 17 j 15:33 10°≈05'51 -4709 Oct 09 j 09:04 $0^{\circ}\Omega$ morning rise -4714 Apr 08 j 04:44 15°≈ retrograde -4709 Dec 30 j 19:52 9°**Ω**07'17 retrograde -4714 Jul 25 j 14:44 29°≈49'38 opposition -4708 Feb 29 j 15:28 4°**Ω**15'50 2°04'30 min. Earth dist. -4714 Sep 21 j 23:34 24°≈53'46 4.09934 AU min. Earth dist. -4708 Mar 01 j 20:44 4°**Ω**06'31 4.35398 AU opposition -4714 Sep 23 j 01:59 24°≈44'44 -1°-56'-50 -4708 Apr 10 j 01:57 30°Rூ -4714 Nov 20 j 14:24 19°≈45'20 direct -4708 May 02 j 04:24 29°516'06 direct -4713 Feb 14 j 19:37 0°**)**€ -4708 May 24 j 09:27 0°**Ω** -4713 Mar 27 j 03:20 8°**)** 45′22 -4708 Aug 26 j 05:36 15°**Ω** evening set evening set -4708 Sep 05 j 10:47 17° **Ω**15'45 -4713 Apr 09 j 21:40 11° **)** 53'51 -1°-6'-6 -4708 Sep 16 j 07:12 19° Ω 42'01 6.31506 AU conjunction max. Earth dist. -4713 Apr 09 j 21:44 11° **)** 53'53 1°06'12 minimum elong -4713 Apr 11 j 10:41 12° ★ 15'00 -4708 Sep 17 j 22:59 $20^{\circ}\Omega04'27$ $1^{\circ}21'44$ max. Earth dist. 6.14776 AU conjunction $-4708 \text{ Sep } 17 \text{ j } 23:01 \quad 20^{\circ} \Omega 04'28 \quad 1^{\circ} 21'54$ morning rise -4713 Apr 23 j 16:19 15° ¥02'20 minimum elong -4713 Jul 09 j 01:03 $0^{\circ}\Upsilon$ morning rise $-4708 \text{ Sep } 30 \text{ i } 09:49 \quad 22^{\circ} \Omega .52'38$ -4713 Aug 28 j 07:14 3°**Y**50′55 -4708 Nov 02 i 11:01 retrograde -4713 Oct 17 j 18:15 30°R € retrograde -4707 Jan 31 j 20:09 10° mp 40'15 -4713 Oct 26 j 15:01 28° **)** 48'29 -1°-11'-3 -4707 Apr 02 j 22:25 5° mp 47'50 1°45'52 opposition opposition -4707 Apr 04 j 01:11 min. Earth dist. -4713 Oct 25 j 21:58 28°\\$54'16 4.20116 AU min. Earth dist. 5° Mp 39'20 4.26865 AU -4707 Jun 03 j 19:03 direct -4713 Dec 25 j 04:35 23° ¥ 46'19 direct 0° m 50'57 -4712 Feb 29 j 10:05 $0^{\circ}\Upsilon$ evening set -4707 Oct 06 j 21:11 19° Mp 06'38 evening set -4712 Apr 30 j 17:25 12°**Υ**22'29 max. Earth dist. -4707 Oct 18 j 04:51 21° m/42'49 6.21519 AU -4712 May 14 j 10:29 15°**Υ**26'01 0°-26'-20 conjunction -4707 Oct 19 j 10:10 21° m 59'43 0°56'29 conjunction -4712 May 14 j 10:31 15°**Υ**26'02 -4707 Oct 19 j 10:14 21° m 59'45 0°56'31 minimum elong 0°26'18 minimum elong -4712 May 15 j 00:52 15°**Υ**34'03 6.25427 AU -4707 Oct 31 j 23:35 24° m 53'13 max. Earth dist. morning rise morning rise -4712 May 28 j 02:08 18°**Υ**28'36 -4707 Nov 23 j 19:04 0∘**⊽** -4712 Jul 23 j 22:17 0° 8 retrograde -4706 Mar 07 j 13:09 13°**2**32'18 retrograde -4712 Sep 28 j 08:24 6°**8**21'39 opposition -4706 May 07 j 17:34 8°**₽**37'11 0°53'07 opposition -4712 Nov 26 j 19:33 1°**8**23'00 0°-4'-43 min. Earth dist. -4706 May 08 j 06:58 8°**₽**32'53 4.16026 AU min. Earth dist. -4712 Nov 26 j 17:36 1°**8**23'39 4.30238 AU -4706 Jul 07 j 07:42 3°**₽**42'51 direct

evening set

-4706 Nov 08 j 13:57 22°**2**21'14

-4712 Dec 07 j 07:30 30°R℃

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 18

3	1		•	//	4707 BCE in historical of	, 1	.gc 10
conjunction	-4706 Nov 21 j 08:02	-		conjunction	-4700 May 19 j 07:23		0°-19'-46
minimum elong	-4706 Nov 21 j 08:03			minimum elong	-4700 May 19 j 07:25		0°19'43
behind sun begin	-4706 Nov 21 j 00:03		0 12 00	max. Earth dist.	-4700 May 19 j 20:32		6.26817 AU
behind sun end	-4706 Nov 21 j 13:34			morning rise	-4700 Jun 01 j 21:59		0.20017710
max. Earth dist.	-4706 Nov 21 j 19:34		6.10865 AU	morning rise	-4700 Jul 03 j 20:35	0°8	
morning rise	-4706 Nov 21 j 00:23		0.10003 AC	retrograde	-4700 Oct 02 j 18:07		
morning risc	-4706 Dec 04 j 04:02	0°M		asc. node	-4700 Nov 02 j 09:32	9° 8 26'39	
desc. node	-4705 Feb 25 j 16:45	14°M44'53		opposition	-4700 Dec 01 j 06:46	5° 8 58'56	0°05'02
desc. Hode	-4705 Feb 27 j 15:55	15°M		min. Earth dist.	-4700 Dec 01 j 06:13	5° 8 59'07	4.31537 AU
retrograde	-4705 Apr 13 j 00:42	17°M56'15		direct	-4699 Jan 31 j 08:11	0° 8 55'14	4.31337 AO
renograde	-4705 May 27 j 17:41	17 11030 13 15°RM		direct	-4699 May 20 j 06:24	_	
opposition	-4705 Jun 12 j 20:46	12°M57'22	0°-20'-28	evening set	-4699 Jun 08 j 07:37		
min. Earth dist.	-4705 Jun 12 j 17:31	12°M58'26	4.06391 AU	evening set	-4099 Juli 00 J 07.37	19 003 02	
	v	8°M04'20	4.00391 AU	agniumation	4600 Jun 21: 16:55	220 801115	0°26'44
direct	-4705 Aug 11 j 03:19	8 11604 20 15°M		conjunction	-4699 Jun 21 j 16:55 -4699 Jun 21 j 16:53		0°26'55
	-4705 Oct 18 j 06:16	27°M06'07		minimum elong max. Earth dist.	-4699 Jun 21 j 04:32		6.35378 AU
evening set	-4705 Dec 13 j 02:16	27 1160007 0° x 7					0.33378 AU
	-4705 Dec 25 j 06:37	0 x .		morning rise	-4699 Jul 04 j 23:13		
	4705 D 26:02.21	00 71007	00 271 42	. 1	-4699 Jul 28 j 17:41	0°Ⅱ 120Ⅲ0€/22	
conjunction	-4705 Dec 26 j 03:31	0° ₹ 12'27		retrograde	-4699 Nov 02 j 17:00	12° I 106'23	1000120
minimum elong	-4705 Dec 26 j 03:28	0° ₹ 12'26	0°37'56	opposition	-4698 Jan 01 j 15:10	7° Ⅱ 11'49	1°08'29
max. Earth dist.	-4705 Dec 26 j 20:57	0° ₹ 22'50	6.03149 AU	min. Earth dist.	-4698 Jan 02 j 05:58	7° I 106'59	4.38020 AU
morning rise	-4704 Jan 08 j 08:01	3° ₹ 20'36		direct	-4698 Mar 04 j 18:24	2° ∏ 08′23	
retrograde	-4704 May 19 j 05:51	23° ∡ '33'18		evening set	-4698 Jul 10 j 12:41		
opposition	-4704 Jul 18 j 14:25	18° ∡ ′30′37	-1°-29'-2	max. Earth dist.	-4698 Jul 22 j 06:33	22°Щ38'19	6.39219 AU
min. Earth dist.	-4704 Jul 17 j 17:56	18° ₹ 37'28	4.01478 AU			—	
direct	-4704 Sep 14 j 19:31	13° ∡ 36′50		conjunction	-4698 Jul 23 j 12:39		1°04'30
	-4703 Jan 04 j 23:43	0°₹		minimum elong	-4698 Jul 23 j 12:35		1°04'44
evening set	-4703 Jan 17 j 08:37	2° る 53'51		morning rise	-4698 Aug 05 j 09:05		
					-4698 Aug 25 j 07:29	0ං ව	
conjunction	-4703 Jan 30 j 17:22		-1°-14'-30	retrograde	-4698 Dec 03 j 14:22		
minimum elong	-4703 Jan 30 j 17:19	6° る 04'09	1°14'46	opposition	-4697 Feb 02 j 00:37	7° © 52'08	1°51'45
max. Earth dist.	-4703 Feb 01 j 07:36	6° る 26'55	6.01367 AU	min. Earth dist.	-4697 Feb 03 j 02:02	7° © 43'59	4.39121 AU
morning rise	-4703 Feb 13 j 05:27	9° る 16'12		direct	-4697 Apr 05 j 15:57	2° © 50'19	
retrograde	-4703 Jun 25 j 02:22	29° る 31'37		evening set	-4697 Aug 10 j 18:52		
opposition	-4703 Aug 23 j 21:30	24° る 26'36	-2°-4'-9	max. Earth dist.	-4697 Aug 21 j 17:18	23° © 08'24	6.37349 AU
min. Earth dist.	-4703 Aug 22 j 17:13	24° る 36'14	4.03174 AU				
direct	-4703 Oct 20 j 21:59	19° පි 30'06		conjunction	-4697 Aug 23 j 10:35	23° © 31'18	1°23'55
	-4702 Jan 15 j 01:46	0° ≈		minimum elong	-4697 Aug 23 j 10:34	23° © 31'18	1°24'08
evening set	-4702 Feb 23 j 11:50	8° ≈ 46′02		morning rise	-4697 Sep 04 j 23:53	26° © 18'08	
					-4697 Sep 22 j 00:24	$0^{\circ}\Omega$	
conjunction	-4702 Mar 09 j 03:04	11° ≈ 56′54	-1°-23'-9	retrograde	-4696 Jan 04 j 08:51	13° Ω 34′07	
minimum elong	-4702 Mar 09 j 03:06	11° ≈ 56'55	1°23'21	opposition	-4696 Mar 05 j 04:51	8° Ω 42'40	2°04'05
max. Earth dist.	-4702 Mar 11 j 01:19	12° ≈ 23'55	6.06269 AU	min. Earth dist.	-4696 Mar 06 j 11:26	8° Ω 32'57	4.34486 AU
morning rise	-4702 Mar 22 j 20:21	15° ≈ 08'42		direct	-4696 May 06 j 17:35	3° Ω 43'17	
	-4702 Mar 22 j 05:20	15° ≈			-4696 Aug 09 j 12:17	15° Ω	
	-4702 Jun 03 j 21:15	0°)		evening set	-4696 Sep 09 j 18:48	21° Ω 44'38	
retrograde	-4702 Jul 30 j 11:32	4°){ 47'38		max. Earth dist.	-4696 Sep 20 j 15:34	24° Ω 11'33	6.30253 AU
	-4702 Sep 25 j 18:58	30° R ≈					
opposition	-4702 Sep 27 j 21:01	29° ≈ 42'54	-1°-52'-24	conjunction	-4696 Sep 22 j 06:54	24° Ω 33'47	1°19'36
min. Earth dist.	-4702 Sep 26 j 18:47	29° ≈ 51'52	4.10791 AU	minimum elong	-4696 Sep 22 j 06:56	24° Ω 33'48	1°19'46
direct	-4702 Nov 25 j 11:04	24° ≈ 43′04		morning rise	-4696 Oct 04 j 17:46	27° Ω 22'31	
	-4701 Jan 23 j 18:40	0° ∀			-4696 Oct 16 j 12:36	0° m	
evening set	-4701 Apr 01 j 05:36	13°) 41′22		retrograde	-4695 Feb 05 j 12:39	15°Mp 16'41	
				opposition	-4695 Apr 07 j 16:35	10° Mp 24'00	1°40'22
conjunction	-4701 Apr 14 j 23:59	16°) 49′25	-1°-1'-26	min. Earth dist.	-4695 Apr 08 j 17:20	10° Mp $16'08$	4.25350 AU
minimum elong	-4701 Apr 15 j 00:04	16° ¥ 49′28	1°01'31	direct	-4695 Jun 08 j 08:36	5° m 27'32	
max. Earth dist.	-4701 Apr 16 j 10:05	17° ¥ 08'51	6.15937 AU	evening set	-4695 Oct 11 j 08:44	23°M/46'31	
morning rise	-4701 Apr 28 j 18:47	19°) 57′23					
	-4701 Jun 15 j 03:16	$0^{\circ}\Upsilon$		conjunction	-4695 Oct 23 j 22:13	26° Mp 40'31	0°51'11
retrograde	-4701 Sep 01 j 21:24	8° Y 38'29		minimum elong	-4695 Oct 23 j 22:17	26° № 40'32	0°51'13
opposition	-4701 Oct 31 j 05:47	3° Y '36'22	-1°-2'-20	max. Earth dist.	-4695 Oct 22 j 19:42	26° Mp 25′09	6.19885 AU
min. Earth dist.	-4701 Oct 30 j 14:17	3° Y 41'38	4.21441 AU	morning rise	-4695 Nov 05 j 12:19	29° m 35'01	
	-4701 Nov 30 j 02:27	30° Ŗ ₩			-4695 Nov 07 j 07:50	0∘ ⊽	
direct	-4701 Dec 29 j 23:47	28°) €33′50		retrograde	-4694 Mar 12 j 15:06	18° ≏ 22'29	
	-4700 Jan 29 j 07:10	0° Υ		opposition	-4694 May 12 j 17:14	13° ≏ 26'58	0°43'34
evening set	-4700 May 05 j 14:45	17° Y ′06'42		min. Earth dist.	-4694 May 13 j 05:30	13° ≏ 23'01	4.14375 AU
				direct	-4694 Jul 12 j 03:40	8° ≏ 32'56	

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 19 Attention, astronomical year style is used: The year -4694 in astronomical counting style is the year 4695 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	ne year -4694	in astronomical cou	nting style is the year	4695 BCE in historical of	counting style.	
evening set	-4694 Nov 13 j 07:30	27° ≏ 15'26		evening set	-4688 May 10 j 08:08	21° Y ′42'10	
	-4694 Nov 24 j 22:51	0° M					
				conjunction	-4688 May 23 j 23:53	24° Y '43'52	0°-13'-19
conjunction	-4694 Nov 26 j 02:33	0° M .16′21	0°05'10	minimum elong	-4688 May 23 j 23:54		0°13'14
minimum elong	-4694 Nov 26 j 02:33	0° M ₊16'21	0°05'03	behind sun begin	-4688 May 23 j 19:14		
behind sun begin	-4694 Nov 25 j 18:42	0° ™ 11'44		behind sun end	-4688 May 24 j 04:33		
behind sun end	-4694 Nov 26 j 10:23	0°M20'57		max. Earth dist.	-4688 May 24 j 08:14		6.28464 AU
max. Earth dist.	-4694 Nov 25 j 21:50	0° ™ 13'36	6.09368 AU	morning rise	-4688 Jun 06 j 13:37		0.20101110
morning rise	-4694 Dec 08 j 23:49	3°M18'37	0.07500710	morning rise	-4688 Jun 16 j 21:34	0°8	
desc. node	-4693 Jan 05 j 08:22	9°M32'53		asc. node	-4688 Sep 13 j 12:26	_	
desc. Hode	3	15°M		asc. node			
	-4693 Feb 01 j 00:44				-4688 Sep 21 j 12:40		
retrograde	-4693 Apr 18 j 05:19	23°M00'19	00 211 0	retrograde	-4688 Oct 06 j 23:37		
opposition	-4693 Jun 18 j 00:24	18°M00'57			-4688 Oct 22 j 09:57		001.410.0
min. Earth dist.	-4693 Jun 17 j 17:38		4.05218 AU	opposition	-4688 Dec 05 j 14:14		0°14'23
	-4693 Jul 12 j 20:21	15°RM		min. Earth dist.	-4688 Dec 05 j 16:12		4.32860 AU
direct	-4693 Aug 16 j 00:56	13° ™ 08'03		direct	-4687 Feb 04 j 20:06	5° 8 21'58	
	-4693 Sep 18 j 21:58	15° ™			-4687 May 02 j 18:43		
	-4693 Dec 08 j 16:13	0° ∡ 7		evening set	-4687 Jun 12 j 18:58	23° 8 28'48	
evening set	-4693 Dec 18 j 02:46	2° ҂ 13'18					
				conjunction	-4687 Jun 26 j 03:09	26° 8 24'09	0°32'40
conjunction	-4693 Dec 31 j 05:05	5° ∡ ′20'27	0°-44'-8	minimum elong	-4687 Jun 26 j 03:07	26° 8 24'08	0°32'51
minimum elong	-4693 Dec 31 j 05:02	5° ∡ ′20′25	0°44'21	max. Earth dist.	-4687 Jun 25 j 12:10	26° 8 15'55	6.36275 AU
max. Earth dist.	-4692 Jan 01 j 02:13	5° ∡ ′33'04	6.02415 AU	morning rise	-4687 Jul 09 j 08:00		
morning rise	-4692 Jan 13 j 10:43	8° ∡ ¹29'25		Ü	-4687 Jul 12 j 13:30	$\Pi^{\circ}0$	
retrograde	-4692 May 24 j 12:09	28° ∡ ¹45'22		retrograde	-4687 Nov 06 j 21:39		
opposition	-4692 Jul 23 j 18:42	23° х 42′16	-1°-36'-33	opposition	-4686 Jan 05 j 21:30		1°15'52
min. Earth dist.	-4692 Jul 22 j 20:29	23°× 42 10 23°× 49'43	4.01299 AU	min. Earth dist.	-4686 Jan 06 j 14:19		4.38443 AU
direct	-4692 Sep 19 j 22:41	18° х 49 43	4.01299 AU	direct	-4686 Mar 09 j 03:17	6° ∏ 27'59	4.36443 AU
unect					-		
	-4692 Dec 17 j 20:57	0°る		evening set	-4686 Jul 14 j 20:15		6 20102 ATT
evening set	-4691 Jan 22 j 13:47	8° る 06'07		max. Earth dist.	-4686 Jul 26 j 08:38	26°Щ54'29	6.39102 AU
	4601 7 1 04:00 07		10.151.25		4606 7 1 07 10 50	0.50 H 1.011.0	1000100
conjunction	-4691 Feb 04 j 23:37			conjunction	-4686 Jul 27 j 18:52		1°08'23
minimum elong	-4691 Feb 04 j 23:34			minimum elong	-4686 Jul 27 j 18:49		1°08'37
max. Earth dist.	-4691 Feb 06 j 17:40		6.01771 AU	morning rise	-4686 Aug 09 j 14:21	0° ഇ 01'58	
morning rise	-4691 Feb 18 j 12:30	14° る 28'53			-4686 Aug 09 j 10:45	0 \circ \odot	
	-4691 May 05 j 04:43	0° ≈		retrograde	-4686 Dec 07 j 22:32	17° © 03'50	
retrograde	-4691 Jun 30 j 05:03	4° ≈ 40'40		opposition	-4685 Feb 06 j 09:20	12° © 11'53	1°55'26
	-4691 Aug 25 j 22:06	30°Ŗ⋜		min. Earth dist.	-4685 Feb 07 j 12:50	12° © 03'04	4.38497 AU
opposition	-4691 Aug 28 j 21:56	29° る 35'34	-2°-5'-17	direct	-4685 Apr 10 j 01:33	7° © 10'15	
min. Earth dist.	-4691 Aug 27 j 16:57	29° る 45'26	4.04151 AU	evening set	-4685 Aug 15 j 01:21	25°905'00	
direct	-4691 Oct 25 j 23:01	24°る38'39		max. Earth dist.	-4685 Aug 25 j 23:28	27°930'16	6.36255 AU
	-4691 Dec 23 j 21:22	0° ≈					
evening set	-4690 Feb 28 j 16:53	13° ≈ 51'58		conjunction	-4685 Aug 27 j 16:31	27° 9 53'06	1°24'46
3	-4690 Mar 05 j 14:10			minimum elong	-4685 Aug 27 j 16:30		1°24'59
	10,011	10 10		g	-4685 Sep 06 j 04:43	0° Ω	12.09
conjunction	-4690 Mar 14 j 08:35	17° ≈ 02'26	-1°-21'-46	morning rise	-4685 Sep 09 j 05:05	0° Ω 40'05	
minimum elong	-4690 Mar 14 j 08:37	17°≈02'27	1°21'57	morning risc	-4685 Nov 24 j 17:53	15° Ω	
max. Earth dist.	-4690 Mar 16 j 05:15	17°≈28'25		retrograde	-4684 Jan 08 j 20:25	18° Ω 01'28	
	-4690 Mar 28 j 02:26	17 ≈28 23 20°≈13'45	0.07703 AU	renograde	-4684 Feb 23 j 22:41	15°RΩ	
morning rise	·				-		2902157
	-4690 May 11 j 22:39	0°) (44100		opposition	-4684 Mar 09 j 18:15	13° Ω 09'58	2°02'57
retrograde	-4690 Aug 04 j 04:31	9°) (44'00	10.451.14	min. Earth dist.	-4684 Mar 11 j 00:04		4.33008 AU
opposition	-4690 Oct 02 j 15:01		-1°-47'-14	direct	-4684 May 11 j 03:47	8° Ω 10′59	
min. Earth dist.	-4690 Oct 01 j 13:28	4°) (48′12	4.12523 AU		-4684 Jul 21 j 05:40		
	-4690 Nov 16 j 01:38	30°R≈		evening set	-4684 Sep 14 j 03:37		
direct	-4690 Nov 30 j 08:40	29° ≈ 39′10		max. Earth dist.	-4684 Sep 25 j 00:56	28° Ω 43'43	6.28511 AU
	-4690 Dec 14 j 18:47	0°) €					
evening set	-4689 Apr 06 j 05:30	18°) 32′42		conjunction	-4684 Sep 26 j 15:34	29° ん 05'39	1°16'59
				minimum elong	-4684 Sep 26 j 15:37	29° Ω 05'41	1°17'06
conjunction	-4689 Apr 20 j 00:03	21°) €39'58	0°-56'-29		-4684 Sep 30 j 15:16	0° m	
minimum elong	-4689 Apr 20 j 00:08	21°) 40′00	0°56'33	morning rise	-4684 Oct 09 j 02:45	1° m 55'12	
max. Earth dist.	-4689 Apr 21 j 08:33			retrograde	-4683 Feb 10 j 10:01	19° m 57'36	
morning rise	-4689 May 03 j 18:23	24°) (46′56		opposition	-4683 Apr 12 j 12:39	15° m) 04'36	1°34'09
07	-4689 May 27 j 11:32	0°Υ		min. Earth dist.	-4683 Apr 13 j 12:41	14° m 56'57	4.23451 AU
retrograde	-4689 Sep 06 j 09:04	13° Υ 18'27		direct	-4683 Jun 13 j 01:20	10° Mp 08'28	
opposition	-4689 Nov 04 j 17:36	8° Υ 16'52	0°-53'-30	evening set	-4683 Oct 15 j 22:10	28° m/31'50	
min. Earth dist.	-4689 Nov 04 j 04:24	8° Υ 21'19	4.23291 AU	oroning sor	-4683 Oct 22 j 06:40	0° ⊽	
direct	-4089 NOV 04 J 04.24	0 1 21 19 3° V 1/105	1.232/1 AU		1005 Oct 22 J 00.40	· –	

direct

-4688 Jan 03 j 16:40 3°**Υ**14'05

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4683 in astronomical counting style is the year 4684 BCE in historical counting style. -4683 Oct 28 i 12:24 1°**Ω**26'55 0°45'28 morning rise -4677 May 08 j 17:18 29° + 33'42 conjunction -4683 Oct 28 j 12:27 -4677 May 10 j 16:16 $0^{\circ}\Upsilon$ minimum elong 1°**£**26'56 0°45'29 max. Earth dist. -4683 Oct 27 j 13:04 -4677 Sep 10 j 18:52 17° Υ 56'44 1°**Ω**13'22 6.18015 AU retrograde -4677 Nov 09 j 04:57 12°**Υ**55'41 -4683 Nov 10 j 03:23 4°**£**22'37 opposition 0°-44'-25 morning rise -4677 Nov 08 j 17:22 12°**Υ**59'36 4.24859 AU -4682 Mar 17 j 17:20 23°**♀**19'00 retrograde min. Earth dist. 0°33'30 7°**Υ**52'41 opposition -4682 May 17 j 19:23 18°**♀**22'57 direct -4676 Jan 08 j 08:02 -4676 May 15 j 01:37 26°**Υ**17'16 min. Earth dist. -4682 May 18 j 04:03 18°**♀**20'10 4.12696 AU evening set direct -4682 Jul 16 j 23:36 13°**≏**29'14 -4676 May 28 j 16:35 29°**Υ**18'05 -4682 Nov 08 j 10:56 0°M conjunction 0°-6'-48 desc. node -4682 Nov 14 j 02:01 1°M18'29 minimum elong -4676 May 28 j 16:36 29°**Υ**18'06 0°06'43 evening set -4682 Nov 18 j 03:36 2°M15'38 behind sun begin -4676 May 28 j 08:54 29°**Υ**13'51 -4676 May 29 j 00:17 29°**Y**22′20 behind sun end -4676 May 28 j 21:18 29°**Υ**20'40 conjunction -4682 Nov 30 j 23:32 5°M17'32 0°-2'-11 max. Earth dist. 6.29817 AU minimum elong -4682 Nov 30 j 23:33 5°M₁7'32 0°02'20 -4676 May 31 j 20:10 0°8 behind sun begin -4682 Nov 30 j 15:28 5°M12'46 morning rise -4676 Jun 11 j 05:14 2°817'36 behind sun end -4682 Dec 01 j 07:37 5°M22'18 asc. node -4676 Jul 24 j 23:07 11°**8**22'11 max. Earth dist. -4682 Nov 30 j 23:01 5°M17'14 6.08029 AU -4676 Aug 15 j 00:46 15°**8** morning rise -4682 Dec 13 j 22:00 8°M20'54 retrograde -4676 Oct 11 j 08:01 19°**8**51'00 -4681 Jan 12 j 02:28 15°M opposition -4676 Dec 09 j 22:47 14°853'56 0°23'42 retrograde -4681 Apr 23 j 12:11 28° 11.09'09 -4676 Dec 09 j 04:28 15°R8 opposition -4681 Jun 23 j 05:48 23°ML09'07 0°-41'-44 min. Earth dist. -4676 Dec 10 j 03:36 14°\(\cup 52'21 \) 4.33896 AU min. Earth dist. -4681 Jun 22 i 20:23 23°M 12'13 4.04347 AU direct -4675 Feb 09 i 09:05 9°**8**50'09 direct -4681 Aug 21 i 03:30 18°ML16'09 -4675 Apr 11 i 14:21 15°8 -4681 Nov 20 j 21:33 0°×7 evening set -4675 Jun 17 i 07:17 27°**8**54'56 evening set -4681 Dec 23 j 05:00 7°**∡**¹23'30 -4675 Jun 26 j 19:56 $\Pi^{\circ}0$ -4680 Jan 05 j 08:27 10° ₹ 31'15 0°-50'-16 -4675 Jun 30 j 14:11 0°**Ⅱ**49'31 0°38'29 conjunction conjunction -4680 Jan 05 j 08:23 10° ₹31'13 0°50'31 -4675 Jun 30 j 14:08 0°**Ⅱ**49'30 0°38'41 minimum elong minimum elong -4680 Jan 06 j 10:36 10° **₹** 46'51 -4675 Jun 29 j 19:10 0°**Ⅲ**39'05 max. Earth dist. 6.02074 AU max. Earth dist. 6.36901 AU -4680 Jan 18 j 15:06 13° ₹ 40'47 -4675 Jul 13 j 17:47 3°**Ⅱ**42'26 morning rise morning rise -4675 Nov 11 j 04:26 20°**Д**48'08 -4680 Apr 08 j 06:51 0°ನ retrograde -4674 Jan 10 j 05:50 15°**Ц**54'26 1°22'57 -4680 May 29 j 18:34 3°**る**57'39 retrograde opposition -4680 Jul 20 j 17:14 30°R 🗷 -4674 Jan 11 j 00:28 15°**耳**48'23 4.38656 AU min. Earth dist. -4674 Mar 13 j 13:26 10°**Ⅲ**51'18 -4680 Jul 28 j 22:49 28° ₹ 54'07 -1°-43'-18 opposition direct -4674 Jul 19 j 05:25 28°**Ⅲ**46'20 -4680 Jul 27 j 22:55 29°**尽** 02'09 min. Earth dist. 4.01546 AU evening set -4680 Sep 25 j 01:17 23° ₹ 59'47 -4674 Jul 24 j 20:04 direct 0ಂತಾ -4680 Nov 26 j 10:45 0°る -4674 Jul 30 j 16:04 max. Earth dist. 1°**©**16'58 6.38879 AU evening set -4679 Jan 27 j 19:10 13°**♂**17'00 conjunction -4674 Aug 01 j 02:56 1°**5**36'09 1°11'58 conjunction -4679 Feb 10 j 05:43 16°る27'34 -1°-20'-8 minimum elong -4674 Aug 01 j 02:52 1°936'07 1°12'12 -4679 Feb 10 j 05:41 16°る27'33 1°20'23 morning rise -4674 Aug 13 j 21:07 4°9524'25 minimum elong max. Earth dist. -4679 Feb 12 j 00:01 16°る52'36 -4674 Dec 12 j 07:36 21°528'08 6.02521 AU retrograde -4679 Feb 23 j 19:33 19°₹39'43 -4673 Feb 10 j 20:03 16°\$36'28 1°58'34 morning rise opposition -4679 Apr 11 j 15:34 -4673 Feb 12 j 00:19 16°527'26 4.37875 AU min. Earth dist. -4679 Jul 05 j 04:00 -4673 Apr 14 j 12:02 11°535'15 retrograde 9°≈46'28 direct opposition -4679 Sep 02 i 21:06 4°≈41'15 -2°-5'-29 evening set -4673 Aug 19 i 09:44 29°531'33 min. Earth dist. -4679 Sep 01 i 15:32 4°≈51'20 4.05327 AU -4673 Aug 21 i 13:06 $0^{\circ}\Omega$ -4679 Oct 18 j 12:34 30°Rる max. Earth dist. -4673 Aug 30 i 05:33 1°Ω56'00 6.35271 AU direct -4679 Oct 30 j 23:28 29°る43'50 -4679 Nov 12 i 12:22 conjunction -4673 Sep 01 i 00:03 2°Ω19'43 1°25'10 0°≈≈ -4678 Feb 16 j 17:20 15°≈ -4673 Sep 01 j 00:03 2°Ω19'43 1°25'23 minimum elong -4678 Mar 05 j 20:41 18°≈54'05 -4673 Sep 13 j 12:18 5°**Ω**06'56 evening set morning rise -4673 Oct 31 j 08:49 15°**Ω** -4678 Mar 19 j 13:06 22°≈04'09 -1°-19'-49 conjunction retrograde -4672 Jan 13 j 11:53 22° **Ω**33'28 minimum elong -4678 Mar 19 j 13:09 22°≈04'11 1°19'59 opposition -4672 Mar 14 j 09:48 17° **Ω**41'55 2°01'06 max. Earth dist. -4678 Mar 21 j 09:36 22°≈29'57 6.09206 AU min. Earth dist. -4672 Mar 15 j 15:33 17°**Ω**32'28 4.31738 AU morning rise -4678 Apr 02 j 07:05 25°≈14'52 -4672 Apr 05 j 21:15 15°RΩ -4678 Apr 23 j 09:02 0°**₩** -4672 May 15 j 17:15 $12^{\circ}\Omega 43'21$ direct -4678 Aug 08 j 22:46 14° **★** 36'33 -4672 Jun 24 j 04:43 15°**Ω** retrograde -4678 Oct 06 j 08:32 9°**₭**40'23 4.14180 AU -4672 Sep 14 j 19:03 min. Earth dist. 0° m -4678 Oct 07 j 08:01 9°**升**32′22 -1°-41'-24 opposition evening set -4672 Sep 18 j 13:21 0° m 50'51 direct -4678 Dec 05 j 05:48 4°**)**€31'42 max. Earth dist. -4672 Sep 29 j 13:44 3° Mp 20'54 6.27087 AU evening set -4677 Apr 11 j 04:51 23°**米**21'04 conjunction -4672 Oct 01 j 01:30 3° mp 41'16 1°13'53 conjunction -4677 Apr 24 j 23:15 26° **★**27'35 0°-51'-12 minimum elong -4672 Oct 01 j 01:33 3°Mp41'18 1°13'59 minimum elong -4677 Apr 24 j 23:19 26° **€** 27'38 -4672 Oct 13 j 12:48 6° m 31'31 morning rise max. Earth dist. -4677 Apr 26 j 04:13 26°**)** 43'58 6.19517 AU -4671 Feb 15 j 06:11 24° m 41'02 retrograde

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4671 in astronomical counting style is the year 4672 BCE in historical counting style. -4671 Apr 17 j 09:33 19° Mp 47'45 1°27'17 direct -4666 Dec 09 i 22:21 9°**升**17'02 opposition -4671 Apr 18 j 07:08 19° m 40'53 evening set -4665 Apr 16 j 01:24 28° \(\) 03'28 min. Earth dist. 4.21982 AU -4671 Jun 17 j 17:24 14° m 52'07 -4665 Apr 24 j 16:41 $0^{\circ}\Upsilon$ direct -4671 Oct 06 j 00:13 0∘ഹ -4671 Oct 20 j 12:02 1°**Y**′09′22 0°-45'-44 evening set 3°₽18'18 conjunction -4665 Apr 29 j 19:41 0°45'45 max. Earth dist. -4665 Apr 29 j 19:45 1°Y09'25 -4671 Nov 01 j 05:59 6°**£**02'07 6.16646 AU minimum elong -4665 Apr 30 j 20:41 1°**Y**23'29 max. Earth dist. 6.20840 AU -4665 May 13 j 13:21 0°39'28 -4671 Nov 02 j 02:44 conjunction 6°**£**14'12 morning rise 4°**Υ**14'45 22°**Y**30'54 minimum elong -4671 Nov 02 j 02:47 6°**£**14'14 0°39'28 retrograde -4665 Sep 15 j 06:00 morning rise -4671 Nov 14 j 18:39 9°**₽**10'53 opposition -4665 Nov 13 j 14:58 17°**Ƴ**30′23 0°-35'-15 retrograde -4670 Mar 22 j 19:08 28°**♀**14'23 min. Earth dist. -4665 Nov 13 j 06:30 17°**Y**33′15 4.26026 AU 12°**Y**27'10 opposition -4670 May 22 j 20:29 23°**₽**17'47 0°23'17 direct -4664 Jan 12 j 23:04 min. Earth dist. -4670 May 23 j 02:36 23°**△**15'48 4.11524 AU -4664 May 15 j 23:18 0°8 direct -4670 Jul 21 j 20:47 18°**≏**24'15 evening set -4664 May 19 j 17:34 0°849'28 desc. node -4670 Sep 23 j 22:43 24°**≏**29'12 -4670 Oct 22 j 02:57 0°M conjunction -4664 Jun 02 j 07:47 3°**8**49'35 0°00'-17 evening set -4670 Nov 22 j 22:29 7°M12'58 minimum elong -4664 Jun 02 j 07:46 3°**8**49'35 0°00'11 behind sun begin -4664 Jun 01 j 23:34 3°845'04 conjunction -4670 Dec 05 j 19:29 10°ML15'39 0°-9'-16 behind sun end -4664 Jun 02 j 15:59 3°854'06 minimum elong -4670 Dec 05 j 19:29 10°M 15'39 0°09'25 max. Earth dist. -4664 Jun 02 j 09:23 3°850'25 6.30753 AU behind sun begin -4670 Dec 05 j 12:41 10°ML11'39 asc. node -4664 Jun 04 j 17:55 4°**8**21'45 behind sun end -4670 Dec 06 i 02:17 10°ML19'40 morning rise -4664 Jun 15 i 19:22 6°**8**48'17 max. Earth dist. -4670 Dec 05 j 23:50 10°ML18'13 6.07177 AU -4664 Jul 24 i 23:46 15°8 morning rise -4670 Dec 18 j 18:56 13°M 19'51 retrograde -4664 Oct 15 i 14:26 24°**8**17'25 -4670 Dec 25 j 22:03 15°M -4664 Dec 14 j 06:57 19°**8**20'50 0°32'47 opposition -4669 Mar 13 j 08:06 min. Earth dist. -4664 Dec 14 j 13:05 19°8 18'49 4.34561 AU 0°×7 -4669 Apr 28 j 16:14 -4663 Jan 23 j 07:39 15°R8 3°×712'31 retrograde -4669 Jun 14 j 09:06 30°RML -4663 Feb 13 j 19:30 14°817'03 direct opposition -4669 Jun 28 j 08:18 28°ML11'58 0°-51'-45 -4663 Mar 07 j 14:17 15°8 -4669 Jun 27 j 20:37 28°M 15'50 4.03913 AU -4663 Jun 10 j 22:26 min. Earth dist. Π °0 -4669 Aug 26 j 02:53 23°M18'58 evening set -4663 Jun 21 j 19:29 2° II 20'51 direct -4669 Oct 31 j 14:41 -4663 Jul 04 j 03:37 max. Earth dist. 5°**Ⅱ**02'58 6.37255 AU 0°**∡**7 -4669 Dec 28 j 04:41 12°**又** 27'08 evening set -4663 Jul 05 j 01:04 5°**I**14'45 0°44'02 conjunction -4668 Jan 10 j 08:54 15°**x** 35'14 0°-55'-51 -4663 Jul 05 j 01:01 5°**Ⅱ**14'44 conjunction minimum elong 0°44'15 8°**Ⅱ**06'59 -4668 Jan 10 j 08:51 15°**х** 35'12 0°56'06 -4663 Jul 18 j 03:22 minimum elong morning rise -4668 Jan 11 j 12:40 15°**尽** 51'46 -4663 Nov 15 j 13:06 25°**Ⅲ**11'35 max. Earth dist. 6.02060 AU retrograde morning rise -4668 Jan 23 j 16:41 18°**х** 45'12 -4662 Jan 14 j 14:52 20° **Ⅱ**18'17 1°29'34 opposition -4668 Mar 14 j 18:26 0°₹ min. Earth dist. -4662 Jan 15 j 11:30 20°**Ⅲ**11'36 4.38696 AU retrograde -4668 Jun 03 j 19:07 9°**ට**01'46 direct -4662 Mar 18 j 00:52 15°**Ⅲ**15'22 -4668 Aug 02 j 22:55 3°る57'49 -1°-49'00 -4662 Jul 08 j 21:29 0ಂತಾ opposition min. Earth dist. -4668 Aug 01 j 21:15 4°る06'28 4.01968 AU -4662 Jul 23 j 14:46 3°9510'25 evening set -4668 Sep 06 j 09:34 30°R ⊀ max. Earth dist. -4662 Aug 03 j 22:16 5°**9**39'34 6.38581 AU -4668 Sep 30 j 00:14 29° ₹03'05 direct -4668 Oct 23 j 16:13 -4662 Aug 05 j 11:05 5°959'52 1°15'08 0°궁 conjunction -4667 Feb 01 j 20:54 18°る19'17 evening set minimum elong -4662 Aug 05 i 11:02 5°959'50 1°15'23 morning rise -4662 Aug 18 j 04:19 8°9547'49 -4667 Feb 15 j 08:26 21°る29'52 -1°-21'-58 conjunction retrograde -4662 Dec 16 i 17:56 25°553'34 minimum elong -4667 Feb 15 j 08:25 21°る29'52 1°22'12 opposition -4661 Feb 15 i 07:54 21°501'57 2°01'00 max. Earth dist. -4667 Feb 17 j 04:39 21°る55'58 6.03326 AU min. Earth dist. -4661 Feb 16 i 12:15 20°\$52'53 4.37283 AU -4667 Feb 28 j 22:47 24°る41'52 direct -4661 Apr 18 j 23:04 16°501'01 morning rise -4667 Mar 24 j 02:42 -4661 Aug 05 j 12:13 0°≈≈ $0^{\circ}\Omega$ -4667 Jul 10 j 01:10 14°≈43'25 retrograde evening set -4661 Aug 23 j 18:00 3°**£**58′17 opposition -4667 Sep 07 j 16:18 9°2238'12 -2°-4'-45 max. Earth dist. -4661 Sep 03 j 15:11 6°**Ω**23'47 6.34424 AU min. Earth dist. -4667 Sep 06 j 12:08 9°**≈**47'49 4.06425 AU -4661 Sep 05 j 07:47 direct -4667 Nov 04 j 21:10 4°≈40'19 conjunction 6° Ω46'30 1°25'04 -4666 Jan 29 j 19:45 15°≈ minimum elong -4661 Sep 05 j 07:48 6°**Ω**46'31 1°25'15 -4666 Mar 10 j 21:12 23°≈47'59 -4661 Sep 17 j 19:24 9°**£**33′50 evening set morning rise -4661 Oct 12 j 21:32 15°**Ω** conjunction -4666 Mar 24 j 14:05 26°≈57'42 -1°-17'-22 retrograde -4660 Jan 18 j 02:18 27° **Ω** 04'54 minimum elong -4666 Mar 24 j 14:08 26°≈57'43 1°17'31 opposition -4660 Mar 19 j 01:35 22°Ω13'12 1°58'29 max. Earth dist. -4666 Mar 26 j 08:32 27°≈22'13 6.10494 AU min. Earth dist. -4660 Mar 20 j 06:37 22°**Ω**03'59 4.30676 AU -4666 Apr 06 j 18:34 0°**)**€ direct -4660 May 20 j 06:43 17°**Ω**15'04 morning rise -4666 Apr 07 j 08:27 0°****07'57 -4660 Aug 29 j 10:31 0°m retrograde -4666 Aug 13 j 11:58 19°**米**21'58 evening set -4660 Sep 22 j 22:53 5° m 24'11 -4666 Oct 11 j 21:41 14° ¥ 18'07 -1°-35'-6 max. Earth dist. -4660 Oct 03 j 23:32 7° m 54'53 6.25881 AU opposition min. Earth dist. -4666 Oct 10 j 23:01 14° **€**25'51 4.15529 AU

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4660 in astronomical counting style is the year 4661 BCE in historical counting style. morning rise -4660 Oct 05 i 10:55 8° m 15'06 1°10'20 -4654 Apr 12 j 11:34 5°**)**€05'36 conjunction 8° m 15'08 -4660 Oct 05 j 10:58 1°10'26 -4654 Aug 18 j 05:45 24° ¥ 12'52 minimum elong retrograde -4660 Oct 17 j 22:41 11° m 06'00 -4654 Oct 16 j 13:41 19° **★** 09'25 -1°-28'-3 opposition morning rise -4654 Oct 15 j 17:25 19°**米**16'19 4.16702 AU -4659 Feb 20 j 02:04 29° m 21'55 min. Earth dist. retrograde -4659 Apr 22 j 05:42 24° m 28'12 1°19'52 -4654 Dec 14 j 19:01 14° **★** 07'58 opposition direct -4659 Apr 23 j 01:25 $0^{\circ}\Upsilon$ min. Earth dist. 24°**m**21'54 4.20681 AU -4653 Apr 08 j 01:37 -4659 Jun 22 j 09:44 19° m 32'51 -4653 Apr 21 j 00:24 2° Y 52'03 direct evening set -4659 Sep 18 j 17:35 0∘ଫ -4659 Oct 25 j 00:44 5°**Y**57'25 evening set 8°**£**01'25 conjunction -4653 May 04 j 18:37 0°-39'-49 -4653 May 04 j 18:41 5° **Y**57'27minimum elong 0°39'49 conjunction -4659 Nov 06 j 16:16 10°**⊆**58'10 0°33'16 max. Earth dist. -4653 May 05 j 17:56 6°**Y**10′32 6.22062 AU -4659 Nov 06 j 16:19 10°**♀**58'11 -4653 May 18 j 11:44 9°Y02'04 minimum elong 0°33'13 morning rise -4653 Sep 19 j 17:16 27°**Υ**11'33 max. Earth dist. -4659 Nov 05 j 23:30 10°**2**48'23 6.15371 AU retrograde morning rise -4659 Nov 19 j 08:56 13°**♀**55'47 opposition -4653 Nov 18 j 03:13 22°**Υ**11'38 0°-25'-39 -4658 Feb 10 j 01:46 0°M min. Earth dist. -4653 Nov 17 j 19:39 22°**Υ**14'11 4.27205 AU retrograde -4658 Mar 27 j 19:54 3°ML06'08 direct -4652 Jan 17 j 14:06 17°**Υ**08'19 -4658 May 13 j 04:58 30°R**≏** asc. node -4652 Apr 13 j 22:31 27°**Y**'00'16 opposition -4658 May 27 j 20:26 28°**♀**09'03 -4652 Apr 28 j 22:15 0°8 min. Earth dist. -4658 May 28 j 00:35 28°**♀**07'42 4.10370 AU evening set -4652 May 24 j 12:02 5°**8**28'15 direct -4658 Jul 26 j 16:45 23° **2**15'45 desc. node -4658 Aug 04 j 08:38 23°**2**23'07 conjunction -4652 Jun 07 j 01:09 8°**8**27'30 0°06'25 -4658 Oct 02 i 07:30 0°M minimum elong -4652 Jun 07 j 01:08 8°**8**27'29 0°06'33 evening set -4658 Nov 27 i 16:39 12°ML07'02 behind sun begin -4652 Jun 06 i 17:25 8°**8**23'15 -4658 Dec 09 j 20:39 15°M behind sun end -4652 Jun 07 j 08:50 8°**8**31'44 max. Earth dist. -4652 Jun 06 j 23:01 8°**8**26'21 6.31831 AU -4658 Dec 10 j 14:25 15°ML10'32 0°-16'-15 -4652 Jun 20 j 11:42 11°**8**25'19 conjunction morning rise -4658 Dec 10 j 14:23 15°ML10'31 0°16'25 -4652 Jul 07 j 00:41 15°8 minimum elong -4658 Dec 10 j 20:35 15°M 14'11 6.06231 AU -4652 Oct 20 j 01:13 28°849'44 max. Earth dist. retrograde -4658 Dec 23 j 15:07 18°ML15'39 -4652 Dec 18 j 17:39 23°853'42 0°41'51 morning rise opposition -4657 Feb 15 j 13:49 -4652 Dec 19 j 02:17 23°850'52 4.35484 AU 0°**√** min. Earth dist. -4657 May 03 j 18:21 8°**х** 13′23 -4651 Feb 18 j 10:32 18°850'01 retrograde direct 3°**∡**12'18 -1°-1'-22 -4657 Jul 03 j 09:38 -4651 May 24 j 15:04 $0^{\circ}\Pi$ opposition 6°**I**I51'34 -4651 Jun 26 j 08:48 min. Earth dist. -4657 Jul 02 j 19:17 3°**∡**17'03 4.03280 AU evening set -4657 Jul 29 j 21:15 30°RM -4651 Jul 09 j 13:08 9°**II**44'38 0°49'26 -4657 Aug 31 j 00:46 28°M 19'09 direct conjunction -4657 Oct 01 j 22:25 0° ₹ -4651 Jul 09 j 13:05 9°**I**44'37 0°49'38 minimum elong -4656 Jan 02 j 04:18 17°**尽**29'23 -4651 Jul 08 j 14:32 9°**Д**32'14 6.37962 AU evening set max. Earth dist. morning rise -4651 Jul 22 j 13:58 12°**Д**36′00 conjunction -4656 Jan 15 j 09:43 20°**√**38'05 -1°-1'-1 retrograde -4651 Nov 19 j 20:27 29°**Ⅲ**38'25 minimum elong -4656 Jan 15 j 09:39 20° **₹** 38'03 1°01'16 opposition -4650 Jan 19 j 01:08 24°**Ⅱ**45'24 1°35'41 max. Earth dist. -4656 Jan 16 j 17:18 20°**х** 56'54 6.01787 AU min. Earth dist. -4650 Jan 19 j 21:52 24° **II** 38'42 4.39178 AU -4656 Jan 28 j 18:19 23° ₹ 48'33 -4650 Mar 22 j 12:02 19°**Ⅲ**42'44 morning rise direct -4656 Feb 24 j 16:21 -4650 Jun 21 j 13:39 0ಂತಾ -4656 Jun 08 j 22:11 14°る05'52 -4650 Jul 28 j 00:08 7°936'04 retrograde evening set -4656 Aug 07 j 22:56 9°**ට**01'37 -1°-53'-58 max. Earth dist. -4650 Aug 08 j 06:06 10°904'25 6.38798 AU opposition min. Earth dist. -4656 Aug 06 j 21:22 9°る10'15 4.02098 AU direct -4656 Oct 04 j 23:56 4°る06'32 conjunction -4650 Aug 09 i 19:11 10°524'53 1°17'52 -4655 Feb 06 j 23:48 23°♂23'08 evening set minimum elong -4650 Aug 09 i 19:08 10°524'51 1°18'07 morning rise -4650 Aug 22 i 11:16 13°5512'17 -4655 Feb 20 j 12:10 26°る33'53 -1°-23'-12 -4650 Dec 07 j 03:59 $0^{\circ}\Omega$ conjunction -4655 Feb 20 j 12:09 26°る33'53 1°23'26 -4650 Dec 21 j 03:47 0°Ω18'23 minimum elong retrograde max. Earth dist. -4655 Feb 22 j 08:35 27°る00'02 -4649 Jan 04 j 02:39 30°RS 6 03818 AU -4655 Mar 06 j 03:26 29°**ට**46'00 opposition -4649 Feb 19 j 19:16 25°\$26'52 2°02'40 morning rise -4655 Mar 07 j 03:25 0°≈ min. Earth dist. -4649 Feb 21 j 00:36 25°517'31 4.37217 AU -4655 May 19 j 17:44 15°**≈** direct -4649 Apr 23 j 11:23 20°526'18 retrograde -4655 Jul 14 j 22:07 19°≈43'25 -4649 Jul 19 j 03:42 0 $^{\circ}\Omega$ -4655 Sep 09 j 20:49 15°R≈ evening set -4649 Aug 28 j 00:49 8°**Ω**22'34 min. Earth dist. -4655 Sep 11 j 07:54 14°≈48'02 4.07236 AU max. Earth dist. -4649 Sep 07 j 20:24 10° Ω47'25 6.34065 AU -4655 Sep 12 j 12:31 14°≈38'15 -2°-3'-9 opposition -4655 Nov 09 j 17:56 -4649 Sep 09 j 13:55 11° Ω 10'40 1°24'27 direct 9°≈39'56 conjunction -4654 Jan 07 j 22:34 15°≈ minimum elong -4649 Sep 09 j 13:56 11° Ω 10'40 1°24'37 evening set -4654 Mar 15 j 23:33 28°≈46'13 morning rise -4649 Sep 22 j 01:14 13°Ω57'59 -4654 Mar 21 j 08:07 0°**)**€ -4649 Sep 26 j 16:58 15°**Ω** -4649 Dec 21 j 19:30 0° m conjunction -4654 Mar 29 j 16:56 1°**升**55'42 -1°-14'-19 retrograde -4648 Jan 22 j 14:14 1° m 32'05 minimum elong -4654 Mar 29 j 17:00 1°**)** 55'44 1°14'28 -4648 Feb 23 j 14:25 30°RΩ max. Earth dist. -4654 Mar 31 j 09:06 2°¥18'51 6.11551 AU -4648 Mar 23 j 15:19 26° **Ω**40'09 1°55'09 opposition

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 23

Attention, astronomical year style is used: The year -4648 in astronomical counting style is the year 4649 BCE in historical counting style.								
min. Earth dist.	-4648 Mar 24 j 19:15	•		<i>3</i> -	-4642 Mar 04 j 15:10	0° ∀		
direct	-4648 May 24 j 18:05			evening set	-4642 Mar 21 j 01:42	3°){ 42'40		
	-4648 Aug 11 j 13:30	0° m)		C	J			
evening set	-4648 Sep 27 j 05:29	9° m 51'43		conjunction	-4642 Apr 03 j 19:44	6° ¥ 52'01	-1°-10'-42	
max. Earth dist.	-4648 Oct 08 j 08:59	12° m)24'17	6.25015 AU	minimum elong	-4642 Apr 03 j 19:48	6°) 52′03	1°10'50	
				max. Earth dist.	-4642 Apr 05 j 12:09	7°) 15′14	6.12492 AU	
conjunction	-4648 Oct 09 j 17:45	12° m 43'03	1°06'25	morning rise	-4642 Apr 17 j 14:31	10°) €01'34		
minimum elong	-4648 Oct 09 j 17:49	12° m 43'05	1°06'31	retrograde	-4642 Aug 22 j 21:30	29°) €02'04		
morning rise	-4648 Oct 22 j 05:41	15° Mp 34'26		min. Earth dist.	-4642 Oct 20 j 09:15	24°) €05'44	4.17874 AU	
	-4647 Jan 03 j 19:07	0∘ ⊽		opposition	-4642 Oct 21 j 05:05	23° ¥ 58'59	-1°-20'-22	
retrograde	-4647 Feb 24 j 18:44	3° ჲ 55'41		direct	-4642 Dec 19 j 12:59	18° ¥ 57'13		
	-4647 Apr 19 j 06:32	30° ₽, ™)			-4641 Mar 21 j 07:28	$0^{\circ}\mathbf{Y}$		
opposition	-4647 Apr 26 j 22:43	29° m 01'36	1°12'06	evening set	-4641 Apr 25 j 23:02	7° Y 38'38		
min. Earth dist.	-4647 Apr 27 j 17:44	28° m 55'31	4.19620 AU					
direct	-4647 Jun 26 j 23:51	24° My $06'33$		conjunction	-4641 May 09 j 16:47	10° Ƴ 43'18	0°-33'-37	
	-4647 Aug 29 j 21:37	0∘ ⊽		minimum elong	-4641 May 09 j 16:50	10° Ƴ 43′20	0°33'36	
evening set	-4647 Oct 29 j 10:32	12° ≏ 36'52		max. Earth dist.	-4641 May 10 j 12:16	10° Y 54'14	6.23371 AU	
max. Earth dist.	-4647 Nov 10 j 10:22	15° ≏ 24'54	6.14214 AU	morning rise	-4641 May 23 j 09:28	13° Ƴ 47'11		
					-4641 Aug 21 j 05:32	9° 8		
conjunction	-4647 Nov 11 j 02:35	15° ≏ 34'23	0°27'01	retrograde	-4641 Sep 24 j 04:58	1° 8 49'36		
minimum elong	-4647 Nov 11 j 02:37	15° ≏ 34'24	0°26'58		-4641 Oct 27 j 23:09	30° ₹ Υ		
morning rise	-4647 Nov 23 j 20:19	18° ≏ 32'56		opposition	-4641 Nov 22 j 15:08	26° Y 50′08	0°-15'-55	
	-4646 Jan 16 j 05:51	0°M		min. Earth dist.	-4641 Nov 22 j 10:01	26° Y 51'51	4.28506 AU	
retrograde	-4646 Apr 01 j 15:52	7° M 49'50		direct	-4640 Jan 22 j 07:00			
opposition	-4646 Jun 01 j 16:26	2°M52'13	0°02'51	asc. node	-4640 Feb 22 j 04:24	23° Y 13'42		
min. Earth dist.	-4646 Jun 01 j 18:06	2°M51'40	4.09201 AU		-4640 Apr 10 j 01:10	0°8		
desc. node	-4646 Jun 16 j 16:25	0° M 58′27		evening set	-4640 May 29 j 04:58			
	-4646 Jun 25 j 08:03	30° Ŗ Ω		C	, ,	_		
direct	-4646 Jul 31 j 08:13	27° ♀ 58'57		conjunction	-4640 Jun 11 j 17:09	13° 8 01'41	0°12'57	
	-4646 Sep 04 j 21:08	0°M₊		minimum elong	-4640 Jun 11 j 17:08		0°13'07	
	-4646 Nov 24 j 06:45	15° M ₊		behind sun begin	-4640 Jun 11 j 12:23			
evening set	-4646 Dec 02 j 07:58	16°M53'24		behind sun end	-4640 Jun 11 j 21:53			
				max. Earth dist.	-4640 Jun 11 j 13:41		6.33004 AU	
conjunction	-4646 Dec 15 j 06:55	19° M 57'49	0°-22'-54		-4640 Jun 20 j 15:48			
minimum elong	-4646 Dec 15 j 06:52	19°ML57'47	0°23'06	morning rise	-4640 Jun 25 j 02:17			
max. Earth dist.	-4646 Dec 15 j 16:46	20°ML03'40	6.05172 AU	morning not	-4640 Sep 07 j 17:11	0°П		
morning rise	-4646 Dec 28 j 08:35	23°ML03'52	0.001/2110	retrograde	-4640 Oct 24 j 08:01	3° Ⅱ 17'56		
morning rise	-4645 Jan 27 j 17:13	0°×7'		renograde	-4640 Dec 10 j 11:44			
retrograde	-4645 May 08 j 20:01	13° ∡ ¹07'06		opposition	-4640 Dec 23 j 03:00		0°50'36	
opposition	-4645 Jul 08 j 07:52	8° √ 05'33	-1°-10'-16	min. Earth dist.	-4640 Dec 23 j 12:33		4.36427 AU	
min. Earth dist.	-4645 Jul 07 j 16:58	8°×710'30	4.02443 AU	direct	-4639 Feb 22 j 22:24		1.50127710	
direct	-4645 Sep 04 j 20:23	3° х 1030	1.02113710	ancer	-4639 May 04 j 23:13	0°Ⅱ		
evening set	-4644 Jan 07 j 02:01			evening set	-4639 Jun 30 j 20:43			
evening set	4044 Juli 07 J 02:01	22 × 23 40		evening set	405) Jun 50 j 20.45	11 11/37		
conjunction	-4644 Jan 20 j 08:24	25° ∡ 735'03	-1°-5'-35	conjunction	-4639 Jul 13 j 23:32	14°∏10'12	0°54'30	
minimum elong	-4644 Jan 20 j 08:20	25° х 35′03	1°05'50	minimum elong	-4639 Jul 13 j 23:28		0°54'43	
max. Earth dist.	-4644 Jan 21 j 17:10	25° × 54'34	6.01239 AU	max. Earth dist.	-4639 Jul 12 j 21:27		6.38561 AU	
morning rise	-4644 Feb 02 j 18:17	28° × 46'16	0.01237710	morning rise	-4639 Jul 26 j 23:06		0.50501710	
morning rise	-4644 Feb 07 j 23:30	0°る。		morning rise	-4639 Oct 02 j 23:35	0°95		
retrograde	-4644 Jun 13 j 21:29	0 0 19° る 05'13		retrograde	-4639 Nov 24 j 05:10	4°901'40		
opposition	-4644 Aug 12 j 20:49	19 8 03 13	-1°-57'-57	15110grauc	-4638 Jan 16 j 19:14			
min. Earth dist.	-4644 Aug 11 j 17:36	14°る00'44	4.01935 AU	opposition	-4638 Jan 23 j 10:33		1°41'17	
direct	-4644 Oct 09 j 19:40	9° る 05'16	4.01933 AU	min. Earth dist.	-4638 Jan 24 j 09:46		4.39393 AU	
evening set	-4643 Feb 12 j 01:48	28°る23'33		direct	-4638 Mar 27 j 00:07		4.39393 AU	
evening set	3	28 O 23 33		direct		0°9		
	-4643 Feb 18 j 22:18	0 &		avanina aat	-4638 Jun 01 j 10:08			
conjunction	-4643 Feb 25 j 15:08	10003/127	-1°-23'-45	evening set max. Earth dist.	-4638 Aug 01 j 08:18 -4638 Aug 12 j 12:06		6.38575 AU	
	•			max. Barui uist.	-+030 Aug 12 J 12.00	17 2020	0.30373 AU	
minimum elong	-4643 Feb 25 j 15:08	1°≈34'37	1°23'57	aaniumatiam	4629 Av. 14:02:24	1496247126	1020112	
max. Earth dist.	-4643 Feb 27 j 11:41	2°≈00'50	6.04052 AU	conjunction	-4638 Aug 14 j 02:24		1°20'12	
morning rise	-4643 Mar 11 j 07:10	4°≈46'56		minimum elong	-4638 Aug 14 j 02:21		1°20'26	
	-4643 Apr 26 j 20:06	15° ≈		morning rise	-4638 Aug 26 j 17:28			
retrograde	-4643 Jul 19 j 19:49	24°≈41'03	4.07026 477	, 1	-4638 Oct 29 j 10:34	0° Ω		
min. Earth dist.	-4643 Sep 16 j 04:20	19°≈45'22	4.07836 AU	retrograde	-4638 Dec 25 j 13:12	4° Ω 43'01		
opposition	-4643 Sep 17 j 07:52	19° ≈ 35'57	-2°00'-36	*.*	-4637 Feb 23 j 04:25	30° ₹ 5	2002:15	
T'	-4643 Oct 30 j 17:55	15°R≈		opposition	-4637 Feb 24 j 06:58			
direct	-4643 Nov 14 j 16:17	14° ≈ 37'08		min. Earth dist.	-4637 Feb 25 j 11:57		4.36583 AU	
	-4643 Nov 29 j 15:24	13~≈		direct	-4637 Apr 27 j 21:19	24° 20 51′20		

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 24 Attention, astronomical year style is used: The year -4637 in astronomical counting style is the year 4638 BCE in historical counting style.

Attention, astronom	nical year style is used: The	ne year -4637	in astronomical co	ounting style is the year	r 4638 BCE in historical	counting style	
	-4637 Jun 28 j 05:26	$0^{\circ}\Omega$		minimum elong	-4631 Mar 02 j 21:22	6° ≈ 43'14	1°23'56
evening set	-4637 Sep 01 j 08:11	12° Ω 48'43		max. Earth dist.	-4631 Mar 04 j 20:07	7° ≈ 10'37	6.05157 AU
	-4637 Sep 11 j 02:56			morning rise	-4631 Mar 16 j 13:55	9° ≈ 55'15	
max. Earth dist.	-4637 Sep 12 j 04:06	15° Ω 14'08	6.33062 AU		-4631 Apr 07 j 21:28		
				retrograde	-4631 Jul 24 j 17:04	29° ≈ 41′59	
conjunction	-4637 Sep 13 j 20:50			min. Earth dist.	-4631 Sep 21 j 00:27		
minimum elong	-4637 Sep 13 j 20:51		1°23'34	opposition	-4631 Sep 22 j 04:03		-1°-57'-10
morning rise	-4637 Sep 26 j 07:51			direct	-4631 Nov 19 j 14:35		
	-4637 Nov 22 j 12:13	0° m			-4630 Feb 14 j 09:48	0° ∀	
retrograde	-4636 Jan 27 j 06:13	6° ™ 04'17		evening set	-4630 Mar 26 j 03:35	8°) (38′54	
opposition	-4636 Mar 28 j 07:27	1° m) 12'12	1°51'10				
min. Earth dist.	-4636 Mar 29 j 11:42		4.28703 AU	conjunction	-4630 Apr 08 j 21:40		
	-4636 Apr 06 j 20:59	30°R€		minimum elong	-4630 Apr 08 j 21:44		
direct	-4636 May 29 j 08:15			max. Earth dist.	-4630 Apr 10 j 10:50		6.14308 AU
. ,	-4636 Jul 19 j 08:21	0°M)		morning rise	-4630 Apr 22 j 16:32		
evening set	-4636 Oct 01 j 15:10		(22475 ATT		-4630 Jul 08 j 15:35	0°Υ 2°Υ46157	
max. Earth dist.	-4636 Oct 12 j 19:20	1/*110002/	6.234/5 AU	retrograde	-4630 Aug 27 j 09:58	3° Y 46′57	
	4626 0-+ 14:02.41	1.70 m. 1.010.1	1902102	::::	-4630 Oct 16 j 09:10		10 121 20
conjunction	-4636 Oct 14 j 03:41		1°02'03 1°02'07	opposition min. Earth dist.	-4630 Oct 25 j 18:39 -4630 Oct 25 j 00:50		
minimum elong	-4636 Oct 14 j 03:44		1 02 07		-4630 Dec 24 j 07:37		4.19770 AU
morning rise	-4636 Oct 26 j 16:18	0° ⊡		direct	-4629 Feb 28 j 21:39	23 π 42 02 0° Υ	
retrograde	-4636 Dec 11 j 12:49 -4635 Mar 01 j 15:19	8° 요 40'28		evening set	-4629 Apr 30 j 18:22		
opposition	-4635 May 01 j 19:58		1°03'38	evening set	-4029 Apr 30 J 18.22	12 1819	
min. Earth dist.	-4635 May 01 j 19.38	3° £ 40'44	4.17975 AU	conjunction	-4629 May 14 j 11:44	15° ℃ 22'00	0° 27' 25
mm. Lattii dist.	-4635 Jun 04 j 10:59		4.17713 AU	minimum elong	-4629 May 14 j 11:46		
direct	-4635 Jul 01 j 15:55	-		max. Earth dist.	-4629 May 15 j 05:09		
direct	-4635 Jul 28 j 17:29	ე∘ <u>ი</u>		morning rise	-4629 May 28 j 03:24		0.23211 AC
evening set	-4635 Nov 03 j 01:17			morning risc	-4629 Jul 24 j 08:17	0°8	
evening set	4033 110V 03 j 01.17	17 -23 27		retrograde	-4629 Sep 28 j 11:41	6° 8 18'45	
conjunction	-4635 Nov 15 j 18:18	20° Ω 24'05	0°20'19	opposition	-4629 Nov 26 j 23:22	1° 8 19'49	0°-6'-28
minimum elong	-4635 Nov 15 j 18:20		0°20'16	min. Earth dist.	-4629 Nov 26 j 20:13		4.30119 AU
max. Earth dist.	-4635 Nov 15 j 06:20		6.12624 AU	mm. Durur uibv.	-4629 Dec 07 j 01:23		
morning rise	-4635 Nov 28 j 12:57			asc. node	-4628 Jan 03 j 05:19		
	-4635 Dec 27 j 18:09	0°M		direct	-4628 Jan 26 j 19:31		
retrograde	-4634 Apr 06 j 21:05				-4628 Mar 17 j 18:57	0°8	
desc. node	-4634 Apr 26 j 19:18			evening set	-4628 Jun 02 j 17:50	_	
opposition	-4634 Jun 06 j 18:38	7°M50'46	0°-7'-48	C	-4628 Jun 05 j 02:40		
min. Earth dist.	-4634 Jun 06 j 18:45		4.07804 AU		,		
direct	-4634 Aug 05 j 06:38	2°M57'40		conjunction	-4628 Jun 16 j 04:43	17° 8 26'15	0°19'12
	-4634 Nov 06 j 22:21	15° M ₊		minimum elong	-4628 Jun 16 j 04:41	17° 8 26'14	0°19'21
evening set	-4634 Dec 07 j 05:41	21°M55'58		max. Earth dist.	-4628 Jun 15 j 19:54	17° 8 21'25	6.34249 AU
-	-			morning rise	-4628 Jun 29 j 12:45	20° 8 22'01	
conjunction	-4634 Dec 20 j 05:35	25°M01'19	0°-29'-46		-4628 Aug 15 j 16:11	$\Pi^{\circ}0$	
minimum elong	-4634 Dec 20 j 05:33	25°M01'17	0°29'59	retrograde	-4628 Oct 28 j 12:52	7° Ⅱ 36'55	
max. Earth dist.	-4634 Dec 20 j 18:20	25°M08'54	6.04102 AU	opposition	-4628 Dec 27 j 09:02	2° Ⅱ 41'46	0°58'45
morning rise	-4633 Jan 02 j 08:36	28°M08'24		min. Earth dist.	-4628 Dec 27 j 21:45	2° Ⅱ 37'36	4.37228 AU
	-4633 Jan 10 j 06:31	0°⊀			-4627 Jan 18 j 03:39		
retrograde	-4633 May 14 j 00:53	18° ∡ 16'42		direct	-4627 Feb 27 j 08:32	27° 8 38'07	
opposition	-4633 Jul 13 j 11:47	13° х 14′42	-1°-19'-9		-4627 Apr 08 j 21:25	$\Pi^{\circ}0$	
min. Earth dist.	-4633 Jul 12 j 17:33	13° ∡ 20'47	4.01867 AU	evening set	-4627 Jul 05 j 04:27	15° Ⅱ 35'41	
direct	-4633 Sep 09 j 19:50	8° ₹ 21'18		max. Earth dist.	-4627 Jul 17 j 02:19	18° Ⅱ 12'00	6.38840 AU
evening set	-4632 Jan 12 j 05:47						
	-4632 Jan 22 j 06:55	0°₹		conjunction	-4627 Jul 18 j 06:10		0°59'06
				minimum elong	-4627 Jul 18 j 06:06	18° Ⅱ 27'15	0°59'20
conjunction	-4632 Jan 25 j 13:12	0° ठ 46'38	-1°-9'-55	morning rise	-4627 Jul 31 j 04:18	21° Ⅱ 17'12	
minimum elong	-4632 Jan 25 j 13:09	0° る 46'36	1°10'10		-4627 Sep 11 j 12:33	0ං ව	
max. Earth dist.	-4632 Jan 27 j 01:04	1° る 07'59	6.01214 AU	retrograde	-4627 Nov 28 j 09:27	8°917'57	
morning rise	-4632 Feb 08 j 00:00	3° ප 58'13		opposition	-4626 Jan 27 j 17:20	3°525'31	1°46'11
retrograde	-4632 Jun 19 j 01:11	24°る16'02		min. Earth dist.	-4626 Jan 28 j 17:28	3°9517'45	4.39154 AU
opposition	-4632 Aug 17 j 22:33	19° ප 11'16	-2°-1'-12		-4626 Feb 26 j 02:52	30°RⅡ	
min. Earth dist.	-4632 Aug 16 j 18:45	19°る20'43	4.02497 AU	direct	-4626 Mar 31 j 07:07	28° Ⅱ 23'18	
direct	-4632 Oct 14 j 22:39	14° る 15'23			-4626 May 03 j 16:43	0°95	
	-4631 Feb 01 j 22:53	0°≈		evening set	-4626 Aug 05 j 14:15		C 27014 + 11
evening set	-4631 Feb 17 j 07:08	3° ≈ 32'18		max. Earth dist.	-4626 Aug 16 j 14:30	18°942'32	6.37814 AU
	462134 02:2122	(042114	10 221 44		4626 4 10:07:11	1000005105	1022102
conjunction	-4631 Mar 02 j 21:22	ο ≈43′14	-1°-23'-44	conjunction	-4626 Aug 18 j 07:14	19~2005'05	1°22'02

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4626 in astronomical counting style is the year 4627 BCE in historical counting style. -4626 Aug 18 j 07:13 19°505'04 1°22'15 retrograde -4620 Jun 24 i 04:24 29°る25'30 minimum elong opposition -4626 Aug 30 j 21:38 21°552'10 -4620 Aug 22 j 23:49 24°る20'36 -2°-3'-30 morning rise -4626 Oct 08 j 18:29 min. Earth dist. -4620 Aug 21 j 19:08 24°る30'20 4.03402 AU $0^{\circ}\Omega$ -4626 Dec 30 j 00:07 -4620 Oct 20 j 00:06 19°₹24'18 9°**Ω**04'35 direct retrograde -4625 Feb 28 j 17:47 4°Ω13'10 2°04'11 -4619 Jan 14 j 15:41 opposition 0°≈ -4619 Feb 22 j 12:14 8°≈38'50 min. Earth dist. -4625 Mar 02 j 00:27 4°**Ω**03'24 4.35353 AU evening set -4625 Apr 09 j 10:45 30° Rூ -4619 Mar 08 j 02:58 11°≈49'26 -1°-23'-7 direct -4625 May 02 j 07:55 29°9513'15 conjunction -4619 Mar 08 j 02:59 -4625 May 25 j 04:41 $0^{\circ}\Omega$ minimum elong 11°**≈**49′26 1°23'19 -4625 Aug 26 j 13:42 15°**Ω** max. Earth dist. -4619 Mar 10 j 00:01 12°≈15'44 6.06466 AU evening set -4625 Sep 05 j 15:04 17° Ω 13'42 morning rise -4619 Mar 21 j 20:09 15°≈01'04 -4625 Sep 16 j 10:59 19°**Ω**39'40 -4619 Mar 21 j 18:19 max. Earth dist. 6.31458 AU 15°**≈** -4619 Jun 03 j 17:25 0°**∀** conjunction $-4625 \text{ Sep } 18 \text{ j } 03:34 \quad 20^{\circ} \Omega 02'32$ 1°21'51 retrograde -4619 Jul 29 j 11:26 4°**)**₹39'56 minimum elong -4625 Sep 18 j 03:36 20°**Ω**02'33 1°22'01 -4619 Sep 23 j 22:13 30°R≈ morning rise -4625 Sep 30 j 14:34 22°**Q**50'49 opposition -4619 Sep 26 j 22:59 29°≈35'08 -1°-52'-58 -4625 Nov 02 j 19:18 0° m min. Earth dist. -4619 Sep 25 j 20:14 29°≈44'17 4.10939 AU retrograde -4624 Jan 31 j 21:49 10° m 38'00 direct -4619 Nov 24 j 12:52 24°≈35'25 opposition -4624 Apr 02 j 00:23 5° mp 45'41 1°46'31 -4618 Jan 23 j 14:54 0°) min. Earth dist. -4624 Apr 03 j 02:38 5° m 37'20 4.26839 AU evening set -4618 Mar 31 j 04:40 13°**)** € 32'37 direct -4624 Jun 02 j 20:20 0°Mp48'42 evening set -4624 Oct 06 j 02:10 19° m 05'17 conjunction -4618 Apr 13 j 23:04 16° ¥ 40'35 -1°-2'-12 max. Earth dist. -4624 Oct 17 j 09:55 21° mp 41'30 6.21523 AU minimum elong -4618 Apr 13 i 23:08 16° **)** € 40'37 1°02'17 max. Earth dist. -4618 Apr 15 i 10:47 17°**)**€ 00'57 6.16029 AU conjunction -4624 Oct 18 i 15:09 21° m 58'22 0°57'12 morning rise -4618 Apr 27 j 17:36 19°**)** 48'27 -4624 Oct 18 j 15:12 21° m 58'24 0°57'14 -4618 Jun 14 j 21:10 $0^{\circ}\Upsilon$ minimum elong -4624 Oct 31 j 04:24 24° m 51'48 -4618 Aug 31 j 23:20 8°Y30'10 morning rise retrograde -4624 Nov 23 j 02:23 opposition -4618 Oct 30 j 07:39 3°**Y**27'59 -1°-3'-54 0∘ଫ -4623 Mar 06 j 17:15 13°**೨**30'15 min. Earth dist. -4618 Oct 29 j 16:02 3°**Y**33'17 4.21467 AU retrograde -4623 May 06 j 19:51 8°**2**35'20 0°54'34 -4618 Nov 27 j 16:59 30°R € opposition -4618 Dec 29 j 00:56 28° \times 25'36 -4623 May 07 j 10:41 min. Earth dist. 8°**≏**30'34 4.16065 AU direct -4623 Jul 06 j 11:54 -4617 Jan 29 j 19:13 3°**-**40'57 $0^{\circ}\Upsilon$ direct -4623 Nov 07 j 18:48 22°**2**19'49 -4617 May 05 j 13:41 16°**Υ**57'51 evening set evening set -4623 Nov 20 j 12:42 25°**£**19'32 0°13'21 $-4617 \text{ May } 19 \text{ j } 06:20 \quad 20^{\circ} \Upsilon 00'38 \quad 0^{\circ} -21' -3$ conjunction conjunction -4623 Nov 20 j 12:43 25°**£**19'33 0°13'16 -4617 May 19 j 06:21 20°**Υ**00'39 0°20'59 minimum elong minimum elong -4623 Nov 20 j 07:55 25°**£**16'44 -4617 May 19 j 18:55 20°**Υ**'07'38 6.26752 AU behind sun begin max. Earth dist. behind sun end -4623 Nov 20 j 17:31 25°**♀**22'22 morning rise -4617 Jun 01 j 21:18 23°**Υ**02'22 max. Earth dist. -4623 Nov 20 j 04:05 25°**£**14'28 6.10945 AU -4617 Jul 04 j 12:57 0°8 morning rise -4623 Dec 03 j 08:35 28°**2**20'29 retrograde -4617 Oct 02 j 19:10 10°**8**49'34 -4623 Dec 10 j 11:33 0°M asc. node -4617 Nov 13 j 19:37 8°**8**06'06 -4622 Feb 27 j 02:38 15°M -4617 Dec 01 j 08:28 5°851'12 0°03'03 opposition desc. node -4622 Mar 06 j 03:34 15° ML 49'19 min. Earth dist. -4617 Dec 01 j 07:44 5°**8**51'27 4.31397 AU -4622 Apr 12 j 01:58 17°M53'36 -4616 Jan 31 j 09:00 0°**8**47'28 retrograde direct -4622 May 26 j 11:37 15°RM -4616 May 19 j 20:42 15°**8** -4622 Jun 11 i 22:59 12°M 54'55 0°-18'-38 -4616 Jun 07 i 07:26 18°857'32 opposition evening set -4622 Jun 11 j 19:02 12°M 56'13 4.06527 AU min. Earth dist. -4616 Jun 20 j 17:15 21°854'01 0°25'24 direct -4622 Aug 10 j 05:01 8°M01'57 conjunction -4622 Oct 17 i 15:30 15°M minimum elong -4616 Jun 20 j 17:13 21°854'00 0°25'34 -4622 Dec 12 j 06:12 27° ML03'33 max. Earth dist. -4616 Jun 20 j 06:05 21°**8**47'53 6.35178 AU evening set -4622 Dec 24 j 14:55 morning rise -4616 Jul 03 j 23:49 24°848'51 0°×7 -4616 Jul 28 j 07:45 0°**Ⅱ** -4622 Dec 25 j 07:09 0°**₹**09'41 0°-36'-32 retrograde -4616 Nov 01 j 19:02 12°**Д**00'27 conjunction 7°**I**105'49 1°06'42 minimum elong -4622 Dec 25 j 07:06 0° 27 09'39 0°36'45 opposition -4616 Dec 31 j 16:51 max. Earth dist. -4622 Dec 26 j 00:24 0°**х** 19'57 6.03330 AU min. Earth dist. -4615 Jan 01 j 07:22 7°**Д**01'05 4.37765 AU 3°**∡**17'35 -4621 Jan 07 j 11:15 morning rise direct -4615 Mar 03 j 19:04 $2^{\circ}\Pi 02'22$ retrograde -4621 May 19 j 07:42 23°**尽**29'14 evening set -4615 Jul 09 j 14:17 19°**耳**59'03 -4621 Jul 18 j 16:50 18° ₹26'41 -1°-27'-29 max. Earth dist. -4615 Jul 21 j 06:44 22°**П**32'35 6.38920 AU opposition -4621 Jul 17 j 20:47 18° ₹33'23 4.01679 AU min. Earth dist. -4621 Sep 14 j 23:42 13° ₹33'01 -4615 Jul 22 j 14:33 22°**Ⅲ**50'03 1°03'29 direct conjunction -4620 Jan 05 j 10:07 0°궁 -4615 Jul 22 j 14:30 22°**Ⅲ**50'02 1°03'43 minimum elong evening set -4620 Jan 17 j 10:37 2°る49'00 morning rise -4615 Aug 04 j 11:37 25°**Ⅲ**39'28 -4615 Aug 24 j 18:17 0ಂತಾ conjunction -4620 Jan 30 j 19:05 5°る59'06 -1°-13'-44 retrograde -4615 Dec 02 j 18:17 12°540'49 minimum elong -4620 Jan 30 j 19:02 5°**ප**59'04 1°13'59 opposition -4614 Feb 01 j 02:51 7°**5**48'39 1°50'39 max. Earth dist. -4620 Feb 01 j 10:39 6°**る**22'36 6.01588 AU min. Earth dist. -4614 Feb 02 j 05:03 7°9540'14 4.38806 AU

-4620 Feb 13 j 06:45

morning rise

9°る10'52

direct

-4614 Apr 04 j 18:14

2°5546'39

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 26

•	omena of Jupiter fro		•	, · ·		, .	ige 26
	ical year style is used: Th	-	in astronomical cou				
evening set	-4614 Aug 09 j 22:08		6 27054 ATT	max. Earth dist.	-4608 Feb 06 j 13:16		6.021/3 AU
max. Earth dist.	-4614 Aug 20 j 22:04	23°907'00	6.3/054 AU	morning rise	-4608 Feb 18 j 10:04		
	4614.4 00:14.06	220520124	1000100		-4608 May 05 j 18:18	0°≈	
conjunction	-4614 Aug 22 j 14:26		1°23'28	retrograde	-4608 Jun 29 j 01:29	4°≈25'05	
minimum elong	-4614 Aug 22 j 14:24	23°529'23	1°23'41		-4608 Aug 22 j 22:52		
morning rise	-4614 Sep 04 j 03:56	26°516'27		opposition	-4608 Aug 27 j 20:40		-2°-4'-46
	-4614 Sep 21 j 07:31	0°N		min. Earth dist.	-4608 Aug 26 j 15:34		4.04352 AU
retrograde	-4613 Jan 03 j 11:17	13° £ 33'02	2002155	direct	-4608 Oct 24 j 21:55		
opposition	-4613 Mar 05 j 07:19	8° Ω 41'38	2°03'55		-4608 Dec 24 j 09:28	0°≈	
min. Earth dist.	-4613 Mar 06 j 13:11	8° £ 32′08	4.34253 AU	evening set	-4607 Feb 27 j 13:18	13°≈35'23	
direct	-4613 May 06 j 18:54	3° Ω 42'10			-4607 Mar 05 j 15:10	15*∞	
	-4613 Aug 09 j 17:00	15° Ω			460734 12:04.52	1.60 - 45145	10.011.54
evening set	-4613 Sep 09 j 23:54	21° Ω 44'56	(20112 ATT	conjunction	-4607 Mar 13 j 04:53	16°≈45'45	-1°-21'-54
max. Earth dist.	-4613 Sep 20 j 20:13	24° Ω 11'39	6.30112 AU	minimum elong	-4607 Mar 13 j 04:55	16°≈45'46	1°22'05
	4612.0 22:12.04	240 02 411 1	1010140	max. Earth dist.	-4607 Mar 15 j 02:06	17°≈12'05	6.07699 AU
conjunction	-4613 Sep 22 j 12:04		1°19'48	morning rise	-4607 Mar 26 j 22:21	19°≈56'57	
minimum elong	-4613 Sep 22 j 12:06	24° Ω 34'13	1°19'57		-4607 May 12 j 04:20	0°) {	
morning rise	-4613 Oct 04 j 23:08	27° Ω 23'02		retrograde	-4607 Aug 03 j 04:31	9°) €28'27	
	-4613 Oct 16 j 16:56	0° m)		opposition	-4607 Oct 01 j 14:27	4°) €23'55	-1°-48'-8
retrograde	-4612 Feb 05 j 17:30	15° Mp 17'00		min. Earth dist.	-4607 Sep 30 j 13:38	4°) € 32′23	4.12309 AU
opposition	-4612 Apr 06 j 19:29	10° Mp 24'27	1°41'08		-4607 Nov 10 j 09:29	30°R≈	
min. Earth dist.	-4612 Apr 07 j 21:09	10° Mp 16'17	4.25337 AU	direct	-4607 Nov 29 j 07:37	29° ≈ 23'48	
direct	-4612 Jun 07 j 12:59	5° m 27'51			-4607 Dec 18 j 09:22	0° ∀	
evening set	-4612 Oct 10 j 14:18	23° m 47'25		evening set	-4606 Apr 05 j 02:19	18°) (17′45	
max. Earth dist.	-4612 Oct 22 j 01:29	26° Mp 26′07	6.20027 AU				
				conjunction	-4606 Apr 18 j 20:45		0°-57'-28
conjunction	-4612 Oct 23 j 03:49	26° Mp41'21	0°51'59	minimum elong	-4606 Apr 18 j 20:49		0°57'32
minimum elong	-4612 Oct 23 j 03:52	26° Mp 41'22	0°52'01	max. Earth dist.	-4606 Apr 20 j 04:50		6.17424 AU
morning rise	-4612 Nov 04 j 17:46	29° m 35'44		morning rise	-4606 May 02 j 15:16		
	-4612 Nov 06 j 12:02	0∘ ত			-4606 May 27 j 11:09	0° Υ	
retrograde	-4611 Mar 11 j 16:36	18° ≏ 21'38		retrograde	-4606 Sep 05 j 08:49	13° Y ′06′37	
opposition	-4611 May 11 j 19:42	13° ≏ 26'13	0°45'07	opposition	-4606 Nov 03 j 18:20	8° Y 04'54	0°-55'-19
min. Earth dist.	-4611 May 12 j 07:06	13° ≏ 22'34	4.14706 AU	min. Earth dist.	-4606 Nov 03 j 04:15	8° Y ′09'40	4.22761 AU
direct	-4611 Jul 11 j 06:05	8° ഫ 32'10		direct	-4605 Jan 02 j 15:17	3° Y ′02′14	
evening set	-4611 Nov 12 j 12:01	27° ≏ 13'42		evening set	-4605 May 10 j 06:47	21° Y '31'53	
	-4611 Nov 24 j 06:34	0°M				• •	
				conjunction	-4605 May 23 j 22:51		0°-14'-41
conjunction	-4611 Nov 25 j 06:44	0°M14'15	0°06'23	minimum elong	-4605 May 23 j 22:53		0°14'37
minimum elong	-4611 Nov 25 j 06:44	0° M .14′15	0°06'16	behind sun begin	-4605 May 23 j 19:40		
behind sun begin	-4611 Nov 24 j 23:07	0° ™ 09'47		behind sun end	-4605 May 24 j 02:06		
behind sun end	-4611 Nov 25 j 14:21	0° M .18'44		max. Earth dist.	-4605 May 24 j 08:07		6.27876 AU
max. Earth dist.	-4611 Nov 25 j 02:01	0°M11'30	6.09849 AU	morning rise	-4605 Jun 06 j 12:53		
morning rise	-4611 Dec 08 j 03:39	3°M16'08			-4605 Jun 17 j 14:11	0° 8	
desc. node	-4610 Jan 14 j 07:40	11°M35'54			-4605 Sep 24 j 01:17		
	-4610 Jan 31 j 11:38	15°M		asc. node	-4605 Sep 25 j 03:41		
retrograde	-4610 Apr 17 j 05:58	22°M55'02		retrograde	-4605 Oct 07 j 03:36		
opposition	-4610 Jun 17 j 01:37	17°M55'43	0°-29'-9		-4605 Oct 20 j 04:02		
min. Earth dist.	-4610 Jun 16 j 19:28	17° M 57'44	4.05791 AU	opposition	-4605 Dec 05 j 16:40		0°12'23
	-4610 Jul 11 j 01:59	15°RM₊		min. Earth dist.	-4605 Dec 05 j 18:34		4.32265 AU
direct	-4610 Aug 15 j 04:50	13°M02'45		direct	-4604 Feb 04 j 21:21	5° 8 15'18	
	-4610 Sep 18 j 21:23	15°M			-4604 May 02 j 07:31		
	-4610 Dec 08 j 06:43	0° ∡ ¹		evening set	-4604 Jun 11 j 20:19	23° 8 23'55	
evening set	-4610 Dec 17 j 04:27	2° ≯ 05'43					
				conjunction	-4604 Jun 25 j 04:56		0°31'23
conjunction	-4610 Dec 30 j 06:26	5° ∡ 12'25	0°-42'-51	minimum elong	-4604 Jun 25 j 04:53		0°31'33
minimum elong	-4610 Dec 30 j 06:23	5° ∡ 12'23	0°43'04	max. Earth dist.	-4604 Jun 24 j 13:57		6.35722 AU
max. Earth dist.	-4610 Dec 31 j 04:08	5° ₹ 25'21	6.03012 AU	morning rise	-4604 Jul 08 j 10:21		
morning rise	-4609 Jan 12 j 11:32	8° ∡ 20′53		_	-4604 Jul 11 j 23:06	0°II	
retrograde	-4609 May 24 j 10:57	28° 🗷 33'52		retrograde	-4604 Nov 06 j 01:56		
opposition	-4609 Jul 23 j 18:16	23° ∡ 30′52	-1°-34'-51	opposition	-4603 Jan 05 j 01:07		1°14'14
min. Earth dist.	-4609 Jul 22 j 20:27	23° ∡ ³38'11	4.01843 AU	min. Earth dist.	-4603 Jan 05 j 17:14		4.37988 AU
direct	-4609 Sep 19 j 23:09	18° ∡ 36′56		direct	-4603 Mar 08 j 05:22	6° Ⅲ 25'55	
	-4609 Dec 18 j 20:17	0°る 		evening set	-4603 Jul 13 j 23:54	24°∏22'29	
evening set	-4608 Jan 22 j 12:16	7° る 52'24			4600 7 1 2 2 2 2 2 2	•===	100#**
	4.00 %			conjunction	-4603 Jul 26 j 23:03		1°07'28
conjunction	-4608 Feb 04 j 21:27	11° < 02'33	10 16' 51	minimum alana	47.00 [-1 07:00.50	170 H 12100	
				minimum elong	-4603 Jul 26 j 22:59		1°07'42
minimum elong	-4608 Feb 04 j 21:25			max. Earth dist.	-4603 Jul 25 j 14:58		

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4603 in astronomical counting style is the year 4604 BCE in historical counting style. opposition -4603 Aug 08 j 18:47 0°ഇ01'58 -4597 Jul 28 i 18:40 28° ₹34'06 -1°-41'-34 morning rise min. Earth dist. -4603 Aug 08 j 15:12 -4597 Jul 27 j 19:07 28° ₹ 42'01 4.01757 AU 0ಂತಾ -4603 Dec 07 j 02:49 17°504'33 -4597 Sep 24 j 21:53 23° ₹39'49 direct retrograde -4602 Feb 05 j 13:21 12°512'38 -4597 Nov 28 j 05:02 0°**ਰ** 1°54'29 opposition -4602 Feb 06 j 16:00 12°504'05 -4596 Jan 27 j 14:05 12°₹56'09 min. Earth dist. 4.38382 AU evening set direct -4602 Apr 09 j 04:54 7°9511'01 conjunction -4596 Feb 10 j 00:25 16°る06'37 -1°-19'-25 evening set -4602 Aug 14 j 06:26 25°506'17 minimum elong -4596 Feb 10 j 00:23 16°る06'36 max. Earth dist. -4602 Aug 25 j 04:02 27°531'17 6.36337 AU 1°19'39 -4596 Feb 11 j 18:53 16°**ਰ**31'46 max. Earth dist. 6.02473 AU -4596 Feb 23 j 13:43 19°**⋜**18'37 conjunction -4602 Aug 26 j 21:44 27°554'28 1°24'25 morning rise minimum elong -4602 Aug 26 j 21:43 27°554'27 1°24'37 -4596 Apr 12 j 03:44 0°≈ -4602 Sep 05 j 07:40 -4596 Jul 04 j 01:21 $0^{\circ}\Omega$ retrograde 9°≈26'30 -4602 Sep 08 j 10:45 -4596 Sep 01 j 18:01 morning rise 0°**Ω**41'34 opposition 4°**≈**21'19 -2°-5'-11 -4602 Nov 23 j 20:05 15°**Ω** min. Earth dist. -4596 Aug 31 j 13:48 4°≈30'56 4.05005 AU retrograde -4601 Jan 08 j 01:00 18° Ω02'06 -4596 Oct 11 j 03:46 30°R₹ -4601 Feb 23 j 04:04 15°RΩ direct -4596 Oct 29 j 20:32 29°る24'03 opposition -4601 Mar 09 j 21:36 13°**Ω**10'38 2°02'52 -4596 Nov 17 j 14:56 0°≈ min. Earth dist. -4601 Mar 11 j 03:32 13° **Ω**01'06 4.33285 AU -4595 Feb 16 j 22:38 15°**≈** direct -4601 May 11 j 08:03 8°**Ω**11'32 evening set -4595 Mar 04 j 15:49 18°≈35'12 -4601 Jul 21 j 09:00 15°**Ω** evening set -4601 Sep 14 j 08:33 26° Ω 15'52 conjunction -4595 Mar 18 i 07:59 21°≈45'26 -1°-20'-6 max. Earth dist. -4601 Sep 25 j 07:20 28° **Ω**44'21 6.28974 AU minimum elong -4595 Mar 18 j 08:01 21°≈45'28 1°20'15 max. Earth dist. -4595 Mar 20 i 03:39 22°≈10'47 6.08627 AU conjunction $-4601 \text{ Sep } 26 \text{ j } 20:44 \quad 29^{\circ} \Omega 05'34$ 1°17'17 morning rise -4595 Apr 01 i 02:02 24°≈56'26 minimum elong -4601 Sep 26 j 20:47 $29^{\circ}\Omega 05'35$ 1°17'24 -4595 Apr 23 j 12:48 0°**∀** -4601 Sep 30 j 20:42 0° mg -4595 Aug 07 j 20:55 14° **\(21**'30 retrograde -4601 Oct 09 j 07:45 1° m 54'54 -4595 Oct 05 j 06:41 9°**¥**25'34 4.13415 AU morning rise min. Earth dist. -4600 Feb 10 j 10:46 19° m 54'48 -4595 Oct 06 j 07:04 9°**)** 17'14 -1°-42'-30 retrograde opposition -4600 Apr 11 j 14:08 15° Mp 01'57 1°35'05 -4595 Dec 04 j 02:40 4°\mathbf{\central} 16'41 direct opposition -4600 Apr 12 j 13:42 14° m 54'27 4.24081 AU -4594 Apr 10 j 02:13 23°**米**08'27 min. Earth dist. evening set -4600 Jun 12 j 03:20 10° Mp 05'48 direct -4600 Oct 15 j 01:42 28° m 27'28 -4594 Apr 23 j 20:43 26° **)** 15'23 0°-52'-14 conjunction evening set -4594 Apr 23 j 20:47 26° **H** 15'26 0° 52'17 -4600 Oct 21 j 17:57 0∘**ರ** minimum elong -4594 Apr 25 j 01:47 26°**米**31'51 max. Earth dist. 6.18636 AU -4600 Oct 27 j 15:35 1°**£**22'08 0°46'27 -4594 May 07 j 14:58 29°**米**21'59 conjunction morning rise -4600 Oct 27 j 15:38 1°**£**22'09 0°46'28 -4594 May 10 j 10:48 0°**Υ** minimum elong -4600 Oct 26 j 15:10 1°**2**07'58 6.18751 AU $-4594 \text{ Sep } 09 \text{ j } 23:05 \quad 17^{\circ} \Upsilon 49'13$ max. Earth dist. retrograde morning rise -4600 Nov 09 j 06:22 4°**£**17'25 opposition -4594 Nov 08 j 07:11 12°**Υ**'48'02 0°-46'-12 retrograde -4599 Mar 16 j 16:19 23°**♀**10'17 min. Earth dist. -4594 Nov 07 j 19:51 12°**Υ**51'52 4.23950 AU opposition -4599 May 16 j 18:35 18°**♀**14'22 0°35'24 direct -4593 Jan 07 j 09:12 7°**Υ**45'08 min. Earth dist. -4599 May 17 j 04:06 18°**≙**11'18 4.13469 AU -4593 May 15 j 02:12 26°**Υ**12'22 evening set -4599 Jul 16 j 01:05 13°**2**20'32 direct -4599 Nov 08 j 06:21 -4593 May 28 j 17:36 29°**Υ**13'42 0°-8'-5 conjunction -4599 Nov 17 j 04:11 -4593 May 28 j 17:37 29°**Υ**13'43 evening set 2°ML04'37 minimum elong 3°M51'40 -4599 Nov 24 j 18:01 -4593 May 28 j 10:15 29°**Υ**09'39 desc. node behind sun begin -4593 May 29 i 00:58 29°**Υ**17'47 behind sun end -4599 Nov 29 i 23:53 5°M06'03 0°00'-40 $-4593 \text{ May } 29 \text{ j } 00:10 \quad 29^{\circ} \Upsilon 17'20 \quad 6.28967 \text{ AU}$ conjunction max. Earth dist. -4599 Nov 29 i 23:53 minimum elong 5°M06'03 0°00'49 -4593 Jun 01 i 04:59 0°8 behind sun begin -4599 Nov 29 i 15:49 5°ML01'18 morning rise -4593 Jun 11 i 06:41 2°**8**13'46 behind sun end -4599 Nov 30 i 07:58 5°M₁10'48 -4593 Aug 04 i 21:39 13°**8**17'15 asc. node max. Earth dist. -4599 Nov 29 j 23:09 5°M05'39 6.08776 AU -4593 Aug 15 j 08:13 15°**႘** -4599 Dec 12 j 21:49 8°ML08'52 -4593 Oct 11 j 12:22 19°850'29 morning rise retrograde -4598 Jan 12 j 01:33 15°M -4593 Dec 09 j 06:47 15°R8 retrograde -4598 Apr 22 j 08:13 27°ML53'31 opposition -4593 Dec 10 j 03:14 14°853'13 0°21'53 opposition -4598 Jun 22 j 02:39 22°ML53'43 0°-39'-24 min. Earth dist. -4593 Dec 10 j 06:09 14°852'15 4.33208 AU min. Earth dist. -4598 Jun 21 j 18:18 22°ML56'28 4.04993 AU direct -4592 Feb 09 j 10:41 9°**8**49'29 direct -4598 Aug 20 j 01:59 18°ML00'47 -4592 Apr 10 j 17:20 15°**8** -4598 Nov 21 j 02:29 0°**√** -4592 Jun 16 j 11:06 27°**8**56'07 evening set -4598 Dec 22 j 02:28 7°**∡**¹05'59 -4592 Jun 25 j 21:28 evening set Π $^{\circ}0$ -4597 Jan 04 j 05:18 10° **₹** 13'17 0°-48'-50 -4592 Jun 29 j 18:22 0°**I**51′03 0°37′19 conjunction conjunction minimum elong -4597 Jan 04 j 05:14 10° **₹** 13'15 0°49'04 minimum elong -4592 Jun 29 j 18:20 0°**I**I51′02 0°37'31 max. Earth dist. -4597 Jan 05 j 04:30 10° ₹27'07 6.02537 AU max. Earth dist. -4592 Jun 29 j 01:24 0°**Ⅱ**41'43 6.36473 AU morning rise -4597 Jan 17 j 11:36 13° ₹22'26 morning rise -4592 Jul 12 j 22:25 3°**Ⅱ**44'19 -4597 Apr 10 j 10:13 0°ರ retrograde -4592 Nov 10 j 11:17 20°**Ⅲ**51'11 -4597 May 29 j 12:36 3°る37'32 -4591 Jan 09 j 11:18 15°**Ц**57'23 1°21'27 retrograde opposition

min. Earth dist.

-4591 Jan 10 j 05:10 15°**Д**51'35 4.38527 AU

-4597 Jul 17 j 23:31 30°R ⊀

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4591 in astronomical counting style is the year 4592 BCE in historical counting style. direct -4591 Mar 12 j 18:44 10°**I**I54'17 conjunction -4585 Jan 09 i 01:45 15° ₹ 06'29 0°-54'-18 evening set -4591 Jul 18 j 10:36 28° **∏**49'14 -4585 Jan 09 j 01:41 15°**х** 06'26 0°54'32 minimum elong -4591 Jul 23 j 19:59 -4585 Jan 10 j 04:34 15° ₹ 22'28 000 max. Earth dist. 6.01891 AU -4585 Jan 22 j 08:59 -4591 Jul 29 j 22:29 18°**∡**16′21 max. Earth dist. 1°5520'28 6.39083 AU morning rise -4585 Mar 16 j 21:06 0°궁 -4591 Jul 31 j 08:25 1°939'07 conjunction 1°11'08 retrograde -4585 Jun 03 j 14:03 8°る34'18 -4591 Jul 31 j 08:22 -1°-47'-20 minimum elong 1°939'05 1°11'21 opposition -4585 Aug 02 j 16:26 3°**ප**30'34 morning rise -4591 Aug 13 j 03:01 4°9527'27 min. Earth dist. -4585 Aug 01 j 16:51 3°る38'31 4.01435 AU retrograde -4591 Dec 11 j 11:54 21°529'52 -4585 Aug 31 j 20:22 30°R.✓ 28°**х** 36′00 opposition -4590 Feb 10 j 00:26 16°538'02 1°57'38 direct -4585 Sep 29 j 18:14 min. Earth dist. -4590 Feb 11 j 03:22 16°529'24 4.38407 AU -4585 Oct 28 j 14:29 0°궁 -4584 Feb 01 j 14:28 17°る54'25 direct -4590 Apr 13 j 16:19 11°**9**36'41 evening set evening set -4590 Aug 18 j 14:10 29°531'00 -4590 Aug 20 j 18:40 $0^{\circ}\Omega$ conjunction -4584 Feb 15 j 01:42 21°**⋜**05'18 max. Earth dist. -4590 Aug 29 j 12:36 1°**Ω**56'34 6.36105 AU minimum elong -4584 Feb 15 j 01:41 21°る05'17 1°21'32 max. Earth dist. -4584 Feb 16 j 20:21 21°る30'31 6.02492 AU conjunction -4590 Aug 31 j 04:45 2°**Ω**18'55 1°24'51 morning rise -4584 Feb 28 j 16:05 24°중17'42 minimum elong -4590 Aug 31 j 04:45 2°**Ω**18'55 1°25'04 -4584 Mar 24 j 14:14 morning rise -4590 Sep 12 j 16:57 5°**Ω**05'48 retrograde -4584 Jul 08 j 21:54 14°≈23'38 -4590 Oct 30 j 19:00 15°**Ω** min. Earth dist. -4584 Sep 05 j 08:25 9°≈28'23 4.05390 AU retrograde -4589 Jan 12 j 12:15 $22^{\circ}\Omega 28'39$ opposition -4584 Sep 06 j 13:27 9°≈18'28 -2°-4'-39 opposition -4589 Mar 14 i 10:57 $17^{\circ}\Omega$ 37'05 $2^{\circ}01'04$ direct -4584 Nov 03 j 15:42 4°≈20'47 min. Earth dist. -4589 Mar 15 j 16:29 $17^{\circ}\Omega$ 27'43 4.32797 AU -4583 Jan 30 i 02:10 15°≈ -4589 Apr 05 i 04:19 15°RΩ -4583 Mar 09 j 17:39 23°≈32'04 evening set direct -4589 May 15 j 19:58 12° **Ω**38'23 -4589 Jun 25 j 02:50 15°**Ω** -4583 Mar 23 j 10:33 26°≈42'19 -1°-17'-41 conjunction -4589 Sep 15 j 11:45 -4583 Mar 23 j 10:36 26°≈42'21 1°17'49 0° mb minimum elong -4589 Sep 18 j 15:30 -4583 Mar 25 j 05:07 27°≈06'59 0°m42'34 max. Earth dist. 6.09361 AU evening set -4589 Sep 29 j 13:45 3° Mp 11'04 -4583 Apr 06 j 05:01 29°≈53'10 max. Earth dist. 6.28259 AU morning rise -4583 Apr 06 j 16:56 0°**∀** -4589 Oct 01 j 03:23 3°m/32'27 conjunction 1°14'20 retrograde 3°M/32′28 minimum elong -4589 Oct 01 j 03:26 -4583 Oct 10 j 23:17 14° **★** 08'34 -1°-36'-10 1°14'26 opposition -4589 Oct 13 j 14:40 6° Mp 22'09 min. Earth dist. -4583 Oct 10 j 00:48 14° **★** 16'14 4.14398 AU morning rise -4588 Feb 15 j 02:37 24° m 26'42 -4583 Dec 08 j 23:09 9°**₩**07'37 retrograde direct -4588 Apr 16 j 06:29 19° m 33'27 1°28'31 -4582 Apr 15 j 01:32 27° **★** 57'27 opposition evening set -4588 Apr 17 j 04:56 19° m 26'18 4.23158 AU -4582 Apr 24 j 02:59 min. Earth dist. $0^{\circ}\Upsilon$ -4588 Jun 16 j 16:50 14° m 37'34 direct -4588 Oct 06 j 05:50 0∘**⊽** conjunction -4582 Apr 28 j 20:07 1° Y 03'56 0°-46'-39 evening set -4588 Oct 19 j 10:29 3°**₾**00'25 minimum elong -4582 Apr 28 j 20:11 1°**Y**03'58 0°46'40 max. Earth dist. -4588 Oct 31 j 03:39 5°**-**43'19 6.17718 AU max. Earth dist. -4582 Apr 30 j 00:07 1°**Y**19'45 6.19811 AU morning rise -4582 May 12 j 14:00 4°Υ09'52 -4588 Nov 01 j 01:02 5°**£**55'45 0°40'46 -4582 Sep 14 j 10:29 22°**Y**30'09 conjunction retrograde -4588 Nov 01 j 01:05 5°**£**55'47 -4582 Nov 12 j 19:38 17°**Υ**29'28 0°-36'-48 minimum elong 0°40'46 opposition -4588 Nov 13 j 16:25 8°**£**51'47 min. Earth dist. -4582 Nov 12 j 08:53 17°**Υ**33'05 4.25194 AU morning rise -4587 Mar 21 j 11:57 27° **2**50'39 -4581 Jan 12 j 00:39 12°**Υ**26'22 retrograde direct opposition -4587 May 21 i 13:52 22° **2**54'17 0°25'42 -4581 May 16 j 00:23 0°8 -4587 May 21 j 21:54 22° **2**51'42 4.12394 AU min. Earth dist. evening set -4581 May 19 i 20:53 0°850'44 direct -4587 Jul 20 j 16:25 18° **2**00'40 desc. node -4587 Oct 06 j 15:03 26° **2**38'40 conjunction -4581 Jun 02 j 11:18 3°**8**51'12 0°-1'-25 minimum elong -4587 Oct 22 j 21:05 -4581 Jun 02 i 11:17 3°**8**51'12 0°01'20 oom. -4587 Nov 21 j 17:40 -4581 Jun 02 j 03:01 3°**8**46'38 evening set 6°M47'10 behind sun begin behind sun end -4581 Jun 02 j 19:34 3°855'46 -4587 Dec 04 j 14:07 9°M49'24 0°-7'-29 max. Earth dist. -4581 Jun 02 j 14:09 3°**8**52'44 6.30181 AU conjunction minimum elong -4587 Dec 04 j 14:06 9°M49'24 0°07'37 asc. node -4581 Jun 14 j 09:26 6°**8**29'26 behind sun begin -4587 Dec 04 j 06:46 9°M45'04 morning rise -4581 Jun 15 j 23:23 6°850'19 behind sun end -4587 Dec 04 j 21:27 9°M 53'44 -4581 Jul 24 j 22:32 15°**8** max. Earth dist. -4587 Dec 04 j 14:25 9°M49'35 6.07748 AU retrograde -4581 Oct 15 j 22:15 24°**8**21'24 -4587 Dec 17 j 13:16 12°ML53'11 -4581 Dec 14 j 13:06 19°**8**24'39 0°31'10 morning rise opposition -4581 Dec 14 j 18:46 19°**8**22'46 4.34268 AU -4587 Dec 26 j 14:29 15°M min. Earth dist. -4580 Jan 24 j 12:20 15°R₩ -4586 Mar 15 j 18:50 0°**√** -4580 Feb 14 j 01:22 14°**8**20'52 retrograde -4586 Apr 27 j 06:43 2°**х** 43′34 direct -4586 Jun 09 j 00:43 30°RM -4580 Mar 05 j 18:23 15°**8** opposition -4586 Jun 27 j 00:06 27°M 43'15 0°-49'-4 -4580 Jun 09 j 19:38 Π °0 min. Earth dist. -4586 Jun 26 j 13:38 27°ML46'42 4.04112 AU evening set -4580 Jun 21 j 00:17 2°**I**I24'56 direct -4586 Aug 24 j 19:48 22°M.50'12 max. Earth dist. -4580 Jul 03 j 11:23 5°**Ⅱ**08'37 6.37261 AU -4586 Nov 01 j 22:49 -4586 Dec 26 j 21:41 11° ₹ 58'24 -4580 Jul 04 j 06:21 5°**Ⅲ**19'01 0°42'59 evening set conjunction

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4580 in astronomical counting style is the year 4581 BCE in historical counting style. -4580 Jul 04 j 06:18 5°**Ⅲ**18'59 0°43'11 min. Earth dist. -4574 Jul 01 j 15:24 2°**尽**52'27 4.03200 AU minimum elong 8°**Ⅱ**11'22 -4580 Jul 17 j 08:56 -4574 Jul 24 j 19:18 30°RML morning rise -4580 Nov 14 j 17:41 25°**Ⅲ**15'37 -4574 Aug 29 j 20:04 27° M 55'22 retrograde direct -4574 Oct 04 j 09:55 -4579 Jan 13 j 20:16 20°**Ⅲ**22'08 1°28'11 0°**∡**¹ opposition -4579 Jan 14 j 14:53 20° **I**I 16'06 4.38988 AU -4574 Dec 31 j 23:33 17°**尽**06'29 min. Earth dist. evening set -4579 Mar 17 j 04:49 15°**Ⅱ**19'11 direct 0°-59'-39 -4579 Jul 07 j 21:06 0ംខಾ conjunction -4573 Jan 14 j 04:31 20° **₹**15'11 -4573 Jan 14 j 04:28 20° **₹** 15'09 evening set -4579 Jul 22 j 19:34 3°9512'54 minimum elong 0°59'53 max. Earth dist. -4579 Aug 03 j 04:52 5°9542'48 -4573 Jan 15 j 09:37 20°**尽** 32'32 6.39148 AU max. Earth dist. 6.01449 AU -4573 Jan 27 j 13:01 morning rise 23°×25'44 conjunction -4579 Aug 04 j 16:06 6°902'13 1°14'23 -4573 Feb 25 j 03:32 0°ಕ -4579 Aug 04 j 16:03 -4573 Jun 08 j 17:04 13°₹344'49 minimum elong 6°**ॐ**02'11 1°14'37 retrograde -4579 Aug 17 j 09:33 -4573 Aug 07 j 18:54 morning rise 8°950'02 opposition 8°**る**40'45 -1°-52'-35 retrograde -4579 Dec 15 j 21:31 25°953'23 min. Earth dist. -4573 Aug 06 j 16:42 8°**る**49'36 4.01576 AU opposition -4578 Feb 14 j 11:04 21°501'44 2°00'11 direct -4573 Oct 04 j 18:34 3°**る**45'51 min. Earth dist. -4578 Feb 15 j 15:32 20°552'39 4.38062 AU evening set -4572 Feb 06 j 19:41 23°**궁**04'16 direct -4578 Apr 18 j 03:37 16°9500'44 -4578 Aug 04 j 19:49 0° Ω conjunction -4572 Feb 20 j 07:51 26° ₹ 15'13 -1°-22'-42 evening set -4578 Aug 22 j 21:18 3°**Ω**55'25 minimum elong -4572 Feb 20 j 07:50 26°る15'13 1°22'56 max. Earth dist. -4578 Sep 02 j 17:23 6°**Ω**20′02 6.35351 AU max. Earth dist. -4572 Feb 22 j 04:13 26°**⋜**41'24 6.03206 AU morning rise -4572 Mar 04 j 22:54 29°る27'34 conjunction -4578 Sep 04 i 11:10 6°**Ω**43'21 1°24'52 -4572 Mar 07 i 06:29 0°≈ minimum elong -4578 Sep 04 i 11:10 6°Ω43'21 1°25'03 -4572 May 20 i 09:01 15°**≈** morning rise -4578 Sep 16 j 22:59 9°**Ω**30′22 retrograde -4572 Jul 13 i 21:44 19°≈28'08 -4578 Oct 12 j 09:16 15°Ω -4572 Sep 06 j 22:54 15°R≈ -4577 Jan 17 j 01:30 $26^{\circ}\Omega$ 57'37 -4572 Sep 10 j 07:18 14°≈32'37 4.06607 AU retrograde min. Earth dist. opposition -4577 Mar 19 j 01:08 22°**Ω**05'54 1°58'39 -4572 Sep 11 j 11:41 14°≈22'55 -2°-3'-12 opposition -4577 Mar 20 j 06:00 $21^{\circ}\Omega$ 56'44 4.31680 AU -4572 Nov 08 j 17:26 min. Earth dist. direct 9°≈24'44 -4577 May 20 j 07:22 17°**Ω**07'33 -4571 Jan 08 j 08:13 15°≈ direct -4577 Aug 30 j 05:27 0° m evening set -4571 Mar 14 j 21:00 28°≈32'33 -4577 Sep 22 j 23:46 -4571 Mar 21 j 05:04 0°**)**€ evening set 5° m 13'53 -4577 Oct 04 j 00:40 7° m 44'19 max. Earth dist. 6.26881 AU -4571 Mar 28 j 14:25 1°**)** 42'17 -1°-14'-45 conjunction -4577 Oct 05 j 11:52 8° mg 04'23 1°10'55 -4571 Mar 28 j 14:28 1°**)**42'19 1°14'53 conjunction minimum elong -4577 Oct 05 j 11:55 8° Mp 04'24 -4571 Mar 30 j 09:23 2°**₭**07'03 6.10981 AU minimum elong 1°11'01 max. Earth dist. -4577 Oct 17 j 23:17 10° m 54'46 -4571 Apr 11 j 08:58 4°**¥**52'25 morning rise morning rise -4576 Feb 19 j 21:55 29° m 06'24 -4571 Aug 17 j 06:21 24° **★** 02'18 retrograde retrograde opposition -4576 Apr 21 j 01:46 24° m 12'51 1°21'19 opposition -4571 Oct 15 j 14:50 18° **€** 58'40 -1°-29'-14 min. Earth dist. -4576 Apr 21 j 23:14 24° m 06'00 4.21594 AU min. Earth dist. -4571 Oct 14 j 16:49 19° **★**06'10 4.16249 AU direct -4576 Jun 21 j 08:19 19° Mp 17'21 direct -4571 Dec 13 j 18:00 13° **★** 57'21 -4576 Sep 19 j 00:46 0∘**⊽** -4570 Apr 07 j 18:53 $0^{\circ}\Upsilon$ -4576 Oct 23 j 22:58 7°**≏**43'36 -4570 Apr 19 j 23:18 2° **Y** 4 10 3 evening set evening set -4576 Nov 05 j 14:04 10°**Ω**39'54 0°34'38 -4570 May 03 j 17:24 5°Υ47'31 0°-40'-53 conjunction conjunction -4576 Nov 05 j 14:07 10°**Ω**39'56 0°34'36 -4570 May 03 j 17:28 5°**Ƴ**47'33 0°40'53 minimum elong minimum elong -4576 Nov 04 j 17:49 10°**2**28'06 -4570 May 04 j 17:00 6°**Y**00'48 max. Earth dist. 6.16107 AU max. Earth dist. 6.21735 AU -4576 Nov 18 i 06:34 13°**2**37'05 -4570 May 17 j 10:49 morning rise morning rise 8°Y52'23 -4575 Feb 11 i 17:03 0°M retrograde -4570 Sep 18 i 19:37 27° Υ 03'25 retrograde -4575 Mar 26 j 12:22 2°M44'12 opposition -4570 Nov 17 j 05:19 22°**Υ**03'12 0°-27'-29 -4575 May 08 j 20:20 30°R **♀** min. Earth dist. -4570 Nov 16 i 21:37 22° Υ 05'48 4.27001 AU -4575 May 26 j 14:10 27° **2**47'18 0°15'24 direct -4569 Jan 16 j 16:05 16° Υ 59'51 opposition min. Earth dist. -4575 May 26 j 19:11 27°**2**45'40 4.10859 AU -4569 Apr 25 j 06:46 29° Υ 06'48 asc. node direct -4575 Jul 25 j 11:49 22°**♀**53'50 -4569 Apr 29 j 14:27 0°8 desc. node -4575 Aug 16 j 12:09 23°**♀**40'56 evening set -4569 May 24 j 11:26 5°**8**19'33 -4575 Oct 03 j 04:23 0°M evening set -4575 Nov 26 j 12:36 11°M44'19 conjunction -4569 Jun 07 j 01:00 8°818'59 0°05'04 minimum elong -4569 Jun 07 j 00:59 8°**8**18'59 0°05'12 -4575 Dec 09 j 10:14 14° ML47'36 0°-14'-31 behind sun begin -4569 Jun 06 j 17:00 8°**8**14'35 conjunction -4575 Dec 09 j 10:13 14°M 47'36 -4569 Jun 07 j 08:58 8°**8**23'22 minimum elong 0°14'41 behind sun end -4575 Dec 09 j 06:41 14° ML45'30 -4569 Jun 07 j 01:30 8°**8**19'15 6.31728 AU behind sun begin max. Earth dist. -4569 Jun 20 j 11:43 11°**8**16'56 behind sun end -4575 Dec 09 j 13:45 14°M.49'41 morning rise max. Earth dist. -4575 Dec 09 j 15:26 14° ML50'41 6.06448 AU -4569 Jul 07 j 16:42 15°**8** -4575 Dec 10 j 07:08 15°M retrograde -4569 Oct 20 j 01:48 28°**8**41'54 morning rise -4575 Dec 22 j 10:23 17° ML52'26 opposition -4569 Dec 18 j 19:10 23°**8**45'38 0°39'55 -4574 Feb 16 j 10:52 0°**∡**¹ min. Earth dist. -4569 Dec 19 j 02:23 23°**8**43'15 4.35447 AU -4574 May 02 j 13:20 7°**∡**¹49'15 -4568 Feb 18 j 10:15 18°**8**41'52 retrograde direct

-4574 Jul 02 j 03:26

opposition

2°**∡**⁷48'28 0°-58'-55

-4568 May 24 j 08:00

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 30 Attention, astronomical year style is used: The year -4568 in astronomical counting style is the year 4569 BCE in historical counting style.

Attention, astronom	ical year style is used: The	ne year -4568	in astronomical co	unting style is the year	4569 BCE in historical of	counting style.	
evening set	-4568 Jun 25 j 09:07	6° Ⅱ 43'12		conjunction	-4563 Dec 14 j 09:19	19°M52'25	0°-21'-37
				minimum elong	-4563 Dec 14 j 09:17	19°M52'24	0°21'48
conjunction	-4568 Jul 08 j 13:42	9°Ⅱ36′24	0°48'12	max. Earth dist.	-4563 Dec 14 j 17:57	19°M57'33	6.05222 AU
minimum elong	-4568 Jul 08 j 13:38	9° ∏ 36′22	0°48'24	morning rise	-4563 Dec 27 j 10:51	22°M58'22	
max. Earth dist.	-4568 Jul 07 j 14:19	9° Ⅱ 23'35	6.37956 AU		-4562 Jan 27 j 05:30	0°⊀	
morning rise	-4568 Jul 21 j 15:04	12° Ⅱ 27'57		retrograde	-4562 May 07 j 19:29	13° ∡ ¹00′48	
retrograde	-4568 Nov 18 j 22:59	29° Ⅱ 30′25		opposition	-4562 Jul 07 j 08:46	7° ∡ 759′26	-1°-8'-28
opposition	-4567 Jan 18 j 02:05	24° ∏ 37'18	1°34'12	min. Earth dist.	-4562 Jul 06 j 16:51	8° ∡ °04'43	4.02543 AU
min. Earth dist.	-4567 Jan 18 j 23:49	24° ∏ 30′16	4.39169 AU	direct	-4562 Sep 03 j 20:36	3° ∡ ¹06′15	
direct	-4567 Mar 21 j 13:33	19° ∏ 34'30		evening set	-4561 Jan 06 j 03:26	22° ∡ 19'11	
	-4567 Jun 21 j 07:04	0 \circ ∞					
evening set	-4567 Jul 27 j 01:08	7° 5 28'02		conjunction	-4561 Jan 19 j 09:29	25° ∡ ¹28'21	-1°-4'-37
max. Earth dist.	-4567 Aug 07 j 07:22	9° 9 56'29	6.38770 AU	minimum elong	-4561 Jan 19 j 09:25	25° х ⁴28'19	1°04'50
				max. Earth dist.	-4561 Jan 20 j 18:32	25° ∡ ¹48'04	6.01385 AU
conjunction	-4567 Aug 08 j 20:41	10° © 17'03	1°17'08	morning rise	-4561 Feb 01 j 18:53	28° х ³39'19	
minimum elong	-4567 Aug 08 j 20:39	10°9517'02	1°17'22		-4561 Feb 07 j 12:02	0°ප	
morning rise	-4567 Aug 21 j 13:05	13° © 04'37		retrograde	-4561 Jun 13 j 22:05	18° る 57'40	
	-4567 Dec 09 j 14:19	$0^{\circ}\Omega$		opposition	-4561 Aug 12 j 22:06	13° る 53'13	-1°-56'-57
retrograde	-4567 Dec 20 j 04:09	0° Ω 10′37		min. Earth dist.	-4561 Aug 11 j 19:14	14° る 02'19	4.02102 AU
	-4567 Dec 30 j 18:12	30° Ŗ ூ		direct	-4561 Oct 09 j 22:33	8° る 57'54	
opposition	-4566 Feb 18 j 19:29	25°519'04	2°02'03	evening set	-4560 Feb 12 j 01:23	28° る 14'55	
min. Earth dist.	-4566 Feb 20 j 00:12	25° © 09'53	4.37177 AU		-4560 Feb 19 j 12:36	0° ≈	
direct	-4566 Apr 22 j 10:16	20°518'21					
	-4566 Jul 18 j 20:32	$0^{\circ}\Omega$		conjunction	-4560 Feb 25 j 14:27	1° ≈ 25'46	-1°-23'-29
evening set	-4566 Aug 27 j 02:50	8° Ω 15'24		minimum elong	-4560 Feb 25 j 14:27	1°≈25'45	1°23'41
max. Earth dist.	-4566 Sep 06 j 22:39	10° Ω 40′22	6.34015 AU	max. Earth dist.	-4560 Feb 27 j 12:45	1°≈52'58	6.04236 AU
	1 7			morning rise	-4560 Mar 10 j 06:08	4°≈37'52	
conjunction	-4566 Sep 08 j 16:13	11° Ω 03'38	1°24'23	Ü	-4560 Apr 26 j 13:53	15° ≈	
minimum elong	-4566 Sep 08 j 16:13	11° Ω 03'38		retrograde	-4560 Jul 18 j 20:19	24° ≈ 31'39	
morning rise	-4566 Sep 21 j 03:41	13° Ω 51′03		min. Earth dist.	-4560 Sep 15 j 04:30		4.08026 AU
	-4566 Sep 26 j 08:02	15° Ω		opposition	-4560 Sep 16 j 09:00	19° ≈ 26'33	-2°00'-49
	-4566 Dec 22 j 04:09	0° mp		of the second	-4560 Oct 27 j 00:09	15°R≈	_ ,,
retrograde	-4565 Jan 21 j 16:00	1° Mp 24'54		direct	-4560 Nov 13 j 16:29	14°≈27'55	
remograde	-4565 Feb 21 j 07:09	30°RΩ			-4560 Dec 01 j 12:21		
opposition	-4565 Mar 23 j 15:19	26°Ω33'05	1°55'36		-4559 Mar 04 j 08:32	0° ∀	
min. Earth dist.	-4565 Mar 24 j 20:43	26° Ω 23'45	4.29971 AU	evening set	-4559 Mar 20 j 00:03	3°) (32′00	
direct	-4565 May 24 j 19:13		4.2))/11/10	evening set	4337 Mai 20 J 00.03	3 7(32 00	
direct	-4565 Aug 12 j 05:29	0°m		conjunction	-4559 Apr 02 j 17:40	6°) 41′08	-1°-11'-17
evening set	-4565 Sep 27 j 08:23	•		3	-4559 Apr 02 j 17:44		
max. Earth dist.	-4565 Oct 08 i 09:53		6.24941 AU	max. Earth dist.	-4559 Apr 04 j 09:14		6.12649 AU
max. Earth dist.	-4303 Oct 08 j 09.33	12 11/17/08	0.24941 AU	morning rise	-4559 Apr 16 j 12:28	9° H 50'34	0.12049 AU
agniumation	-4565 Oct 09 j 20:40	120 m, 27102	1°07'04	•	-4559 Aug 21 j 21:02		
conjunction	•	12° Mp 37'02		retrograde	-4559 Aug 21 j 21:02 -4559 Oct 19 j 10:01		4 17004 411
minimum elong	-4565 Oct 09 j 20:43	12° Mp 37'04	1°07'10	min. Earth dist.			4.17984 AU
morning rise	-4565 Oct 22 j 08:44	15° Tp 28'30		opposition	-4559 Oct 20 j 05:55	18°) 46'23	-1°-21'-46
. 1	-4564 Jan 04 j 14:39	0∘ ত		direct	-4559 Dec 18 j 13:46	18°π4623 0°Υ	
retrograde	-4564 Feb 24 j 18:35	3° Ω 49'21		. ,	-4558 Mar 21 j 04:24		
annagiti	-4564 Apr 17 j 10:55	30°RM⊅	1012121	evening set	-4558 Apr 24 j 20:29	7° Y 26'43	
opposition	-4564 Apr 25 j 22:43	28° M 55'24	1°13'31		4550 M 00:14.26	1000021122	00 241 52
min. Earth dist.	-4564 Apr 26 j 17:23	28° Mp 49'27	4.19562 AU	conjunction	-4558 May 08 j 14:26 -4558 May 08 j 14:29	10° Υ 31'23 10° Υ 31'24	0°-34'-52 0°34'51
direct	-4564 Jun 25 j 23:45	24° Mp 00'18		minimum elong	• •		
	-4564 Aug 29 j 13:31	0° ⊽		max. Earth dist.	-4558 May 09 j 12:02	10° Υ 43'30	6.23428 AU
evening set	-4564 Oct 28 j 13:40	12° ≏ 31'39		morning rise	-4558 May 22 j 07:01	13° Y 35′14	
					4550 4 00:00 04		
	456437 40105 15	1.50.000000	0020110		-4558 Aug 22 j 02:04	0°8	
conjunction	-4564 Nov 10 j 05:42	15° ≙ 29'09	0°28'10	retrograde	-4558 Sep 23 j 04:47	1° 8 38'19	
minimum elong	-4564 Nov 10 j 05:44	15° ≏ 29'10	0°28'08		-4558 Sep 23 j 04:47 -4558 Oct 25 j 02:21	1° ႘ 38′19 30°ℝ ϓ	
minimum elong max. Earth dist.	-4564 Nov 10 j 05:44 -4564 Nov 09 j 14:16	15° £ 29'10 15° £ 20'07		opposition	-4558 Sep 23 j 04:47 -4558 Oct 25 j 02:21 -4558 Nov 21 j 15:34	1°്838'19 30°₹ ° 26° ° \$38'41	0°-17'-58
minimum elong	-4564 Nov 10 j 05:44 -4564 Nov 09 j 14:16 -4564 Nov 22 j 23:05	15° £ 29'10 15° £ 20'07 18° £ 27'36	0°28'08	opposition min. Earth dist.	-4558 Sep 23 j 04:47 -4558 Oct 25 j 02:21 -4558 Nov 21 j 15:34 -4558 Nov 21 j 09:38	1°\dagger338'19 30°\text{R}\gamma' 26°\gamma'38'41 26°\gamma'40'40	0°-17'-58 4.28503 AU
minimum elong max. Earth dist. morning rise	-4564 Nov 10 j 05:44 -4564 Nov 09 j 14:16 -4564 Nov 22 j 23:05 -4563 Jan 15 j 19:51	15° £ 29'10 15° £ 20'07 18° £ 27'36 0° ™	0°28'08	opposition min. Earth dist. direct	-4558 Sep 23 j 04:47 -4558 Oct 25 j 02:21 -4558 Nov 21 j 15:34 -4558 Nov 21 j 09:38 -4557 Jan 21 j 06:00	1°&38'19 30°RY 26°Y38'41 26°Y40'40 21°Y35'14	
minimum elong max. Earth dist. morning rise retrograde	-4564 Nov 10 j 05:44 -4564 Nov 09 j 14:16 -4564 Nov 22 j 23:05 -4563 Jan 15 j 19:51 -4563 Mar 31 j 18:13	15°\$\Omega\$29'10 15°\$\Omega\$20'07 18°\$\Omega\$27'36 0°\$\Omega\$L 7°\$\Omega\$43'58	0°28'08 6.14185 AU	opposition min. Earth dist.	-4558 Sep 23 j 04:47 -4558 Oct 25 j 02:21 -4558 Nov 21 j 15:34 -4558 Nov 21 j 09:38 -4557 Jan 21 j 06:00 -4557 Mar 05 j 09:29	1°\dash38'19 30°R\dash 26°\dash38'41 26°\dash40'40 21°\dash35'14 24°\dash19'59	
minimum elong max. Earth dist. morning rise retrograde opposition	-4564 Nov 10 j 05:44 -4564 Nov 09 j 14:16 -4564 Nov 22 j 23:05 -4563 Jan 15 j 19:51 -4563 Mar 31 j 18:13 -4563 May 31 j 17:06	15° \(\Omega\) 29'10 15° \(\Omega\) 20'07 18° \(\Omega\) 27'36 0° \(\mathrm{M}\). 7° \(\mathrm{M}\) 43'58 2° \(\mathrm{M}\) 46'34	0°28'08 6.14185 AU 0°04'46	opposition min. Earth dist. direct asc. node	-4558 Sep 23 j 04:47 -4558 Oct 25 j 02:21 -4558 Nov 21 j 15:34 -4558 Nov 21 j 09:38 -4557 Jan 21 j 06:00 -4557 Mar 05 j 09:29 -4557 Apr 11 j 00:53	1°\das'19 30°R\footnote{\text{Y}} 26°\das'41 26°\das'40'40 21°\das'5'14 24°\das'19'59 0°\das'	
minimum elong max. Earth dist. morning rise retrograde	-4564 Nov 10 j 05:44 -4564 Nov 09 j 14:16 -4564 Nov 22 j 23:05 -4563 Jan 15 j 19:51 -4563 Mar 31 j 18:13 -4563 May 31 j 17:06 -4563 May 31 j 20:04	15° Ω 29'10 15° Ω 20'07 18° Ω 27'36 0° M . 7° M 43'58 2° M 46'34 2° M 45'36	0°28'08 6.14185 AU	opposition min. Earth dist. direct	-4558 Sep 23 j 04:47 -4558 Oct 25 j 02:21 -4558 Nov 21 j 15:34 -4558 Nov 21 j 09:38 -4557 Jan 21 j 06:00 -4557 Mar 05 j 09:29	1°\dash38'19 30°R\dash 26°\dash38'41 26°\dash40'40 21°\dash35'14 24°\dash19'59	
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-4564 Nov 10 j 05:44 -4564 Nov 09 j 14:16 -4564 Nov 22 j 23:05 -4563 Jan 15 j 19:51 -4563 Mar 31 j 18:13 -4563 May 31 j 17:06 -4563 May 31 j 20:04 -4563 Jun 23 j 11:34	15° \(\Omega\) 29'10 15° \(\Omega\) 20'07 18° \(\Omega\) 27'36 0° \(\Omega\). 7° \(\Omega\) 43'58 2° \(\Omega\) 46'34 2° \(\Omega\) 45'36 30° \(\omega\)	0°28'08 6.14185 AU 0°04'46	opposition min. Earth dist. direct asc. node evening set	-4558 Sep 23 j 04:47 -4558 Oct 25 j 02:21 -4558 Nov 21 j 15:34 -4558 Nov 21 j 09:38 -4557 Jan 21 j 06:00 -4557 Mar 05 j 09:29 -4557 Apr 11 j 00:53 -4557 May 29 j 02:55	1°838'19 30°RY 26°Y38'41 26°Y40'40 21°Y35'14 24°Y19'59 0°8 9°851'29	4.28503 AU
minimum elong max. Earth dist. morning rise retrograde opposition	-4564 Nov 10 j 05:44 -4564 Nov 09 j 14:16 -4564 Nov 22 j 23:05 -4563 Jan 15 j 19:51 -4563 Mar 31 j 18:13 -4563 May 31 j 17:06 -4563 May 31 j 20:04 -4563 Jun 23 j 11:34 -4563 Jun 25 j 21:18	15° №29'10 15° №20'07 18° №27'36 0° M. 7° M.43'58 2° M.46'34 2° M.45'36 30° R № 29° №45'02	0°28'08 6.14185 AU 0°04'46	opposition min. Earth dist. direct asc. node evening set conjunction	-4558 Sep 23 j 04:47 -4558 Oct 25 j 02:21 -4558 Nov 21 j 15:34 -4558 Nov 21 j 09:38 -4557 Jan 21 j 06:00 -4557 Mar 05 j 09:29 -4557 May 29 j 02:55 -4557 Jun 11 j 15:15	1°838'19 30°RY 26°Y38'41 26°Y40'40 21°Y35'14 24°Y19'59 0°8 9°851'29	4.28503 AU 0°11'30
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-4564 Nov 10 j 05:44 -4564 Nov 09 j 14:16 -4564 Nov 22 j 23:05 -4563 Jan 15 j 19:51 -4563 May 31 j 17:06 -4563 May 31 j 20:04 -4563 Jun 23 j 11:34 -4563 Jun 25 j 21:18 -4563 Jul 30 j 10:39	15° №29'10 15° №20'07 18° №27'36 0° M. 7° M.43'58 2° M.46'34 2° M.45'36 30° R № 29° №45'02 27° №53'20	0°28'08 6.14185 AU 0°04'46	opposition min. Earth dist. direct asc. node evening set conjunction minimum elong	-4558 Sep 23 j 04:47 -4558 Oct 25 j 02:21 -4558 Nov 21 j 15:34 -4558 Nov 21 j 09:38 -4557 Jan 21 j 06:00 -4557 Mar 05 j 09:29 -4557 Apr 11 j 00:53 -4557 Jun 11 j 15:15 -4557 Jun 11 j 15:14	1°838'19 30°RY 26°Y38'41 26°Y40'40 21°Y35'14 24°Y19'59 0°8 9°851'29 12°849'57 12°849'57	4.28503 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. desc. node	-4564 Nov 10 j 05:44 -4564 Nov 09 j 14:16 -4564 Nov 22 j 23:05 -4563 Jan 15 j 19:51 -4563 Mar 31 j 18:13 -4563 May 31 j 17:06 -4563 Jun 23 j 11:34 -4563 Jun 25 j 21:18 -4563 Jul 30 j 10:39 -4563 Sep 04 j 19:22	15° \(\Omega\) 29'10 15° \(\Omega\) 20'07 18° \(\Omega\) 27'36 0° \(\mathrea\). 7° \(\mathrea\) 43'58 2° \(\mathrea\) 46'34 2° \(\mathrea\) 45'36 30° \(\mathrea\) \(\Omega\) 45'02 27° \(\Omega\) 53'20 0° \(\mathrea\).	0°28'08 6.14185 AU 0°04'46	opposition min. Earth dist. direct asc. node evening set conjunction minimum elong behind sun begin	-4558 Sep 23 j 04:47 -4558 Oct 25 j 02:21 -4558 Nov 21 j 15:34 -4558 Nov 21 j 09:38 -4557 Jan 21 j 06:00 -4557 Mar 05 j 09:29 -4557 Apr 11 j 00:53 -4557 Jun 11 j 15:15 -4557 Jun 11 j 15:14 -4557 Jun 11 j 09:28	1°838'19 30°RY 26°Y38'41 26°Y40'40 21°Y35'14 24°Y19'59 0°8 9°851'29 12°849'57 12°849'57 12°846'47	4.28503 AU 0°11'30
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. desc. node	-4564 Nov 10 j 05:44 -4564 Nov 09 j 14:16 -4564 Nov 22 j 23:05 -4563 Jan 15 j 19:51 -4563 Mar 31 j 18:13 -4563 May 31 j 17:06 -4563 Jun 23 j 11:34 -4563 Jun 25 j 21:18 -4563 Jul 30 j 10:39 -4563 Sep 04 j 19:22 -4563 Nov 23 j 18:33	15° \(\Omega\) 220'07 18° \(\Omega\) 227'36 0° \(\Omega\). 7° \(\Omega\) 43'58 2° \(\Omega\) 446'34 2° \(\Omega\) 45'36 30° \(\Omega\) \(\Omega\) 45'02 27° \(\Omega\) 53'20 0° \(\Omega\). 15° \(\Omega\).	0°28'08 6.14185 AU 0°04'46	opposition min. Earth dist. direct asc. node evening set conjunction minimum elong behind sun begin behind sun end	-4558 Sep 23 j 04:47 -4558 Oct 25 j 02:21 -4558 Nov 21 j 15:34 -4558 Nov 21 j 09:38 -4557 Jan 21 j 06:00 -4557 Mar 05 j 09:29 -4557 Apr 11 j 00:53 -4557 Jun 11 j 15:15 -4557 Jun 11 j 15:14 -4557 Jun 11 j 09:28 -4557 Jun 11 j 09:28	1°838'19 30°RY 26°Y38'41 26°Y40'40 21°Y35'14 24°Y19'59 0°8 9°851'29 12°849'57 12°849'57 12°846'47 12°853'06	4.28503 AU 0°11'30 0°11'39
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. desc. node	-4564 Nov 10 j 05:44 -4564 Nov 09 j 14:16 -4564 Nov 22 j 23:05 -4563 Jan 15 j 19:51 -4563 Mar 31 j 18:13 -4563 May 31 j 17:06 -4563 Jun 23 j 11:34 -4563 Jun 25 j 21:18 -4563 Jul 30 j 10:39 -4563 Sep 04 j 19:22	15° \(\Omega\) 220'07 18° \(\Omega\) 227'36 0° \(\Omega\). 7° \(\Omega\) 43'58 2° \(\Omega\) 446'34 2° \(\Omega\) 45'36 30° \(\Omega\) \(\Omega\) 45'02 27° \(\Omega\) 53'20 0° \(\Omega\). 15° \(\Omega\).	0°28'08 6.14185 AU 0°04'46	opposition min. Earth dist. direct asc. node evening set conjunction minimum elong behind sun begin	-4558 Sep 23 j 04:47 -4558 Oct 25 j 02:21 -4558 Nov 21 j 15:34 -4558 Nov 21 j 09:38 -4557 Jan 21 j 06:00 -4557 Mar 05 j 09:29 -4557 Apr 11 j 00:53 -4557 Jun 11 j 15:15 -4557 Jun 11 j 15:14 -4557 Jun 11 j 09:28	1°838'19 30°RY 26°Y38'41 26°Y40'40 21°Y35'14 24°Y19'59 0°8 9°851'29 12°849'57 12°849'57 12°846'47 12°853'06	4.28503 AU 0°11'30 0°11'39

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 31

Attention, astronomical year style is used: The year -4557 in astronomical counting style is the year 4558 BCE in historical counting style. -4557 Jun 21 j 11:20 15°**8** morning rise -4552 Nov 27 j 16:24 23°**£**19'22 -4557 Jun 25 j 00:57 15°**8**46'57 -4552 Dec 27 j 06:07 o°m. morning rise -4557 Sep 09 j 02:19 -4551 Apr 05 j 20:12 12°M42'31 0°Π retrograde -4557 Oct 24 j 08:53 3°**Ⅱ**07'15 desc. node -4551 May 06 j 04:17 11° ML17'57 retrograde -4557 Dec 09 j 00:34 30°R8 -4551 Jun 05 j 19:21 0°-5'-48 opposition 7°**IL**44'31 min. Earth dist. -4551 Jun 05 j 18:24 opposition -4557 Dec 23 j 03:12 28°**8**11'29 0°48'35 7°M44'50 4.08196 AU min. Earth dist. -4557 Dec 23 j 13:25 28°**8**08'07 4.36275 AU direct -4551 Aug 04 j 07:24 2°M51'26 23°**8**07'44 direct -4556 Feb 22 j 22:31 -4551 Nov 06 j 13:46 15°M₊ -4556 May 04 j 23:31 $0^{\circ}\Pi$ evening set -4551 Dec 06 j 07:46 21°M.48'18 evening set -4556 Jun 29 j 19:46 11°**Ⅲ**07'25 conjunction -4551 Dec 19 j 07:18 24°M 53'15 0°-28'-25 -4556 Jul 12 j 23:14 13°**Д**59'57 0°53'17 -4551 Dec 19 j 07:16 24°M 53'14 conjunction minimum elong 0°28'38 -4556 Jul 12 j 23:10 13°**Д**59'55 0°53'29 -4551 Dec 19 j 20:21 25° ML01'01 minimum elong max. Earth dist. 6.04602 AU max. Earth dist. -4556 Jul 11 j 22:14 13°**Ⅱ**46'15 6.38350 AU morning rise -4550 Jan 01 j 09:48 27° ML59'54 morning rise -4556 Jul 25 j 23:06 16°**Д**50'46 -4550 Jan 09 j 22:33 0°**∡**¹ -4556 Oct 03 j 02:58 0ಂತಾ retrograde -4550 May 12 j 23:35 18°**尽** 05'32 retrograde -4556 Nov 23 j 04:57 3°952'27 opposition -4550 Jul 12 j 11:17 13°**✗** 03'36 -1°-17'-14 -4555 Jan 14 j 14:12 30°RⅡ min. Earth dist. -4550 Jul 11 j 17:53 13°**х** 09'23 4.02389 AU opposition -4555 Jan 22 j 10:37 28°**Д**59'39 1°39'52 direct -4550 Sep 08 j 21:53 8°**₮**10'12 min. Earth dist. -4555 Jan 23 j 09:03 28°**Ⅲ**52'25 4.39134 AU evening set -4549 Jan 11 j 04:39 27° ₹ 23'22 direct -4555 Mar 25 j 22:32 23°**Ⅲ**57'06 -4549 Jan 22 j 04:32 -4555 Jun 01 i 08:18 0ಂತಾ evening set -4555 Jul 31 i 09:14 11°550'52 conjunction -4549 Jan 24 i 11:41 0°る32'48 -1°-8'-55 max. Earth dist. -4555 Aug 11 j 12:05 14°517'46 6.38292 AU minimum elong -4549 Jan 24 i 11:37 0°る32'46 1°09'10 max. Earth dist. -4549 Jan 25 j 23:55 0°**る**54'21 6.01688 AU -4555 Aug 13 j 03:36 14°539'35 1°19'33 -4549 Feb 06 j 21:59 3°₹43'58 conjunction morning rise -4555 Aug 13 j 03:33 14°539'34 -4549 Jun 18 j 22:37 23°る59'56 1°19'46 retrograde minimum elong morning rise -4555 Aug 25 j 19:11 17°526'58 opposition -4549 Aug 17 j 20:57 18°る55'16 -2°00'-15 -4555 Oct 29 j 07:33 -4549 Aug 16 j 17:06 19°중04'42 4.02857 AU min. Earth dist. $0^{\circ}\Omega$ -4555 Dec 24 j 15:54 $4^{\circ}\Omega$ 36'00 -4549 Oct 14 j 21:01 13°る59'33 direct retrograde -4554 Feb 21 j 06:58 30°RS -4548 Feb 03 j 01:58 0°≈ -4554 Feb 23 j 07:33 29°5544'32 2°03'19 -4548 Feb 17 j 03:24 opposition 3°≈14'41 evening set -4554 Feb 24 j 13:49 29°534'53 min. Earth dist. 4.36296 AU -4554 Apr 26 j 22:46 24°5544'09 -4548 Mar 01 j 17:05 6°≈25'19 -1°-23'-35 direct conjunction -4554 Jun 27 j 23:55 $0^{\circ}\Omega$ -4548 Mar 01 j 17:05 minimum elong 6°≈25'19 1°23'47 -4554 Aug 31 j 10:48 12°Ω43'04 -4548 Mar 03 j 13:44 evening set max. Earth dist. 6°**≈**51'29 6.05335 AU -4548 Mar 15 j 09:28 -4554 Sep 10 j 15:33 15°**Ω** morning rise 9°**≈**37'10 max. Earth dist. -4554 Sep 11 j 06:33 15°**Ω**08'26 6.32802 AU -4548 Apr 08 j 01:47 15°≈ retrograde -4548 Jul 23 j 13:38 29°≈24'18 conjunction -4554 Sep 12 j 23:50 15° **Ω**31'36 1°23'26 min. Earth dist. -4548 Sep 19 j 22:49 24°≈28'41 4.09344 AU -4554 Sep 12 j 23:51 15° **Ω**31'37 opposition -4548 Sep 21 j 02:20 24°≈19'16 -1°-57'-41 minimum elong 1°23'36 -4554 Sep 25 j 11:04 18° **Ω**19'26 -4548 Nov 18 j 12:45 19°≈20'09 morning rise direct -4554 Nov 22 j 03:03 -4547 Feb 14 j 17:03 0°\ -4553 Jan 26 j 06:54 -4547 Mar 24 j 23:03 8°**¥**21′05 retrograde 5° m 59'20 evening set -4553 Mar 28 j 08:15 1°Mp07'19 1°51'45 opposition min. Earth dist. -4553 Mar 29 j 11:40 0° m 58'37 4.28525 AU conjunction -4547 Apr 07 i 17:10 11° ★29'46 -1°-7'-27 -4553 Apr 06 i 06:03 30°RΩ minimum elong -4547 Apr 07 i 17:14 11°¥29'48 1°07'33 direct $-4553 \text{ May } 29 \text{ i } 08:05 \quad 26^{\circ} \Omega 09'50$ max. Earth dist. -4547 Apr 09 i 07:33 11°\ 51'45 6.14091 AU -4553 Jul 20 i 00:00 0° m morning rise -4547 Apr 21 i 11:48 14° ★ 38'33 -4553 Oct 01 j 19:09 14° m 23'17 -4547 Jul 09 j 11:07 $0^{\circ}\Upsilon$ evening set max. Earth dist. -4553 Oct 13 j 00:02 16° m 57'13 6.23413 AU -4547 Aug 26 j 09:46 3°Y31'24 retrograde -4547 Oct 13 j 08:33 30°R € -4553 Oct 14 j 07:42 17° mp 15'25 1°02'45 -4547 Oct 24 j 17:53 28° ¥28'38 -1°-14'-1 conjunction opposition minimum elong -4553 Oct 14 j 07:46 17° m 15'27 1°02'48 min. Earth dist. -4547 Oct 24 j 00:04 28° ¥ 34'42 4.19398 AU morning rise -4553 Oct 26 j 20:13 20° m 07'43 direct -4547 Dec 23 j 05:13 23° **★**26'41 $0^{\circ}\Upsilon$ -4553 Dec 12 j 00:09 0∘∙ -4546 Mar 01 j 06:12 retrograde -4552 Feb 29 j 18:20 8°**≏**36'13 -4546 Apr 29 j 15:10 12°**Υ**03'59 evening set 3°**2**41'53 1°05'06 opposition -4552 Apr 30 j 21:19 -4546 May 13 j 08:33 15°**Υ**07'56 0°-28'-47 min. Earth dist. -4552 May 01 j 14:39 3°**2**36'20 4.18057 AU conjunction -4552 Jun 02 j 16:41 30°R M -4546 May 13 j 08:36 15°**Y**07'57 minimum elong 0°28'46 -4546 May 14 j 01:15 15°**Υ**17'16 6.24706 AU direct -4552 Jun 30 j 19:11 28° m/47'07 max. Earth dist. -4552 Jul 28 j 15:29 0∘**⊽** morning rise -4546 May 27 j 00:39 18°**Υ**11'01 evening set -4552 Nov 02 j 05:07 17°**£**21'27 -4546 Jul 24 j 11:35 0° 8 retrograde -4546 Sep 27 j 12:14 6°**8**07'54 conjunction -4552 Nov 14 j 21:53 20°**£**19'52 0°21'31 opposition -4546 Nov 26 j 00:02 1°**8**08'49 0°-8'-35 -4552 Nov 14 j 21:55 20°**£**19'53 min. Earth dist. -4546 Nov 25 j 20:33 1°809'59 4.29554 AU minimum elong max. Earth dist. -4552 Nov 14 j 09:22 20°**£**12'31 6.12859 AU -4546 Dec 04 j 15:44 30°R℃

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4545 in astronomical counting style is the year 4546 BCE in historical counting style. -4545 Jan 14 j 11:37 26°**Υ**17'29 conjunction -4540 Nov 19 i 13:23 25° **2**08'50 0°14'45 asc. node -4545 Jan 25 j 18:36 26°**Υ**05'15 minimum elong -4540 Nov 19 j 13:24 25° **2**08'50 0°14'41 direct -4545 Mar 19 j 00:19 0° 8 -4540 Nov 19 j 09:50 25°**£**06'45 behind sun begin -4545 Jun 02 j 16:50 14°**8**19'43 -4540 Nov 19 j 16:59 25°**♀**10'56 behind sun end evening set -4545 Jun 05 j 18:26 15°**8** -4540 Nov 19 j 04:10 25°**♀**03'25 max. Earth dist. 6.11710 AU -4540 Dec 02 j 08:51 28° **2**09'15 morning rise -4545 Jun 16 j 04:16 17°**8**17'29 0°17'46 conjunction -4540 Dec 10 j 07:37 0°M -4545 Jun 16 j 04:15 17°**8**17'28 minimum elong 0°17'55 -4539 Feb 27 j 22:46 15°M 16°M40'44 max. Earth dist. -4545 Jun 15 j 21:22 17°**8**13'41 6.33689 AU desc. node -4539 Mar 16 j 23:00 morning rise -4545 Jun 29 j 12:38 20°**8**13'40 retrograde -4539 Apr 10 j 22:37 17°M38'40 -4545 Aug 16 j 09:04 Π °0 -4539 May 23 j 04:48 15°RM -4545 Oct 28 j 15:21 $7^{\circ} \Pi 30'55$ -4539 Jun 10 j 19:55 12°M 40'06 retrograde opposition 0°-16'-18 -4545 Dec 27 j 10:55 -4539 Jun 10 j 17:24 12°M40'55 opposition 2°**Ⅲ**35'41 0°56'52 min. Earth dist. 4.07249 AU min. Earth dist. -4545 Dec 27 j 22:45 2°**Ⅱ**31'49 4.36719 AU direct -4539 Aug 09 j 04:49 7°ML47'02 -4544 Jan 17 j 06:59 30°R₩ -4539 Oct 18 j 00:21 15°M direct -4544 Feb 27 j 08:38 27°\begin{array}{c} 27°\begin{array}{c} 32'07 \end{array} evening set -4539 Dec 11 j 03:54 26°ML46'12 -4544 Apr 08 j 18:43 $0^{\circ}\Pi$ evening set -4544 Jul 04 j 06:12 15°**Ⅲ**31'19 conjunction -4539 Dec 24 j 04:29 29°ML51'53 0°-34'-59 max. Earth dist. -4544 Jul 16 j 03:36 18°**Ⅲ**07'34 6.38426 AU minimum elong -4539 Dec 24 j 04:26 29°M 51'51 0°35'11 -4539 Dec 24 j 18:08 0°**∡**7 conjunction -4544 Jul 17 j 08:14 18°**Д**23'17 0°58'00 max. Earth dist. -4539 Dec 24 j 21:07 0°**∡**'01'46 6.03943 AU minimum elong -4544 Jul 17 j 08:10 18°**Ⅲ**23'15 0°58'13 morning rise -4538 Jan 06 i 08:06 2°×759'17 morning rise -4544 Jul 30 i 07:02 21°**Ⅱ**13'36 retrograde -4538 May 18 i 02:13 23° ₹08'06 -4544 Sep 10 j 22:05 opposition -4538 Jul 17 i 12:07 18° ₹05'44 -1°-25'-24 0ಂತಾ retrograde -4544 Nov 27 j 13:51 8°9515'38 min. Earth dist. -4538 Jul 16 j 16:49 18° ₹ 12'10 4.02114 AU -4543 Jan 26 j 20:06 3°923'08 -4538 Sep 13 j 19:45 13° ₹ 12'07 1°44'58 direct opposition -4543 Jan 27 j 20:24 3°515'18 4.38874 AU -4537 Jan 05 j 19:42 0°궁 min. Earth dist. -4543 Feb 24 j 18:54 30°RⅡ -4537 Jan 16 j 05:27 2°る26'25 evening set direct -4543 Mar 30 j 09:58 28°**Ц**20'51 -4543 May 03 j 04:40 0°ഇ -4537 Jan 29 j 13:19 5°る36'11 -1°-12'-43 conjunction -4543 Aug 04 j 17:41 16°515'22 -4537 Jan 29 j 13:16 5°る36'09 1°12'57 evening set minimum elong -4543 Aug 15 j 20:24 18°5542'26 -4537 Jan 31 j 02:11 max. Earth dist. 6.37712 AU max. Earth dist. 5°る58'05 6.01788 AU -4537 Feb 12 j 00:41 8°중47'42 morning rise -4543 Aug 17 j 11:14 19°503'56 1°21'29 -4537 Jun 23 j 21:58 29°**정**02'08 conjunction retrograde -4543 Aug 17 j 11:12 19°503'55 -4537 Aug 22 j 19:07 23°**궁**57'13 -2°-2'-42 minimum elong 1°21'41 opposition -4543 Aug 30 j 01:48 21°951'10 -4537 Aug 21 j 14:45 24°중06'52 4.03327 AU morning rise min. Earth dist. -4543 Oct 08 j 00:51 $0^{\circ}\Omega$ -4537 Oct 19 j 19:36 19°る00'59 direct retrograde -4543 Dec 29 j 01:57 9°**Ω**03'25 -4536 Jan 16 j 06:53 0°≈ -4542 Feb 27 j 20:15 $4^{\circ}\Omega$ 12'00 2° 03'50 evening set -4536 Feb 22 j 05:43 8°≈15'29 opposition min. Earth dist. -4542 Mar 01 j 01:38 4°Ω02'39 4.35450 AU -4542 Apr 08 j 06:17 30°Rூ conjunction -4536 Mar 06 j 20:23 11°≈26'09 -1°-23'-6 -4542 May 01 j 09:33 29°512'03 -4536 Mar 06 j 20:24 11°≈26'10 1°23'18 direct minimum elong -4542 May 24 j 14:42 0°**Ω** max. Earth dist. -4536 Mar 08 j 18:03 11°≈52'51 6.06136 AU -4542 Aug 25 j 19:52 15°**Ω** -4536 Mar 20 j 13:13 14°≈37'49 morning rise -4542 Sep 04 j 19:20 17° **Ω**12'30 -4536 Mar 22 j 03:32 15°≈ evening set max. Earth dist. -4542 Sep 15 j 15:15 19° Ω 38'23 6.31750 AU -4536 Jun 04 j 21:03 0°**∀** retrograde -4536 Jul 28 i 09:22 4° **)** 19'11 conjunction -4542 Sep 17 i 07:52 20° Ω 01'16 1°21'58 -4536 Sep 20 i 05:58 30°R≈ minimum elong -4542 Sep 17 i 07:54 20° Ω 01'17 1°22'07 opposition -4536 Sep 25 i 20:06 29°≈14'20 -1°-53'-44 $-4542 \text{ Sep } 29 \text{ j } 19:02 \quad 22^{\circ} \Omega 49'29$ min. Earth dist. -4536 Sep 24 j 18:02 29°≈23'14 4.10376 AU morning rise -4542 Nov 02 j 03:08 direct -4536 Nov 23 j 09:01 24°≈14'46 0° m -4541 Jan 31 j 00:27 10° m 34'53 -4535 Jan 24 j 11:25 0°**)**€ retrograde -4535 Mar 29 j 23:42 13°**光** 13'36 -4541 Apr 02 j 01:43 opposition 5° m 42'39 1°47'11 evening set min. Earth dist. -4541 Apr 03 j 04:53 5° Mp 34'01 4.27306 AU direct -4541 Jun 02 j 23:58 0° m 45'31 conjunction -4535 Apr 12 j 18:00 16°**)** 21'53 -1°-3'-7 evening set -4541 Oct 06 j 05:29 19° Mp 00'58 minimum elong -4535 Apr 12 j 18:04 16° **★**21'56 1°03'11 max. Earth dist. -4535 Apr 14 j 05:03 16° **X** 41'54 6.15266 AU -4541 Oct 18 j 18:27 21° m 53'47 0°58'02 -4535 Apr 26 j 12:50 19° ¥30'12 conjunction morning rise $0^{\circ}\Upsilon$ -4541 Oct 18 j 18:30 21° m 53'49 -4535 Jun 15 j 04:39 minimum elong 0°58'04 -4541 Oct 17 j 13:01 21° Mp 36'50 -4535 Aug 30 j 22:23 8°Y15'51 max. Earth dist. 6.22131 AU retrograde -4535 Oct 29 j 07:21 morning rise -4541 Oct 31 j 07:31 24° m 46'53 opposition 3°**Y**13'30 -1°-5'-41 -4541 Nov 23 j 15:24 0∘**⊽** min. Earth dist. -4535 Oct 28 j 14:47 3°**Y**19'07 4.20592 AU retrograde -4540 Mar 05 j 15:02 13°**£**22'06 -4535 Nov 24 j 05:55 30°R₩ opposition -4540 May 05 j 18:58 8°**≏**27'18 0°56'16 direct -4535 Dec 27 j 22:21 28°**)** 11'11 min. Earth dist. -4540 May 06 j 09:18 8°**£**22'43 4.16787 AU -4534 Jan 31 j 02:13 $0^{\circ}\Upsilon$ -4540 Jul 05 j 11:33 3°**£**32'52 -4534 May 04 j 11:37 16°**Υ**46'05 direct evening set

-4540 Nov 06 j 19:52 22°**♀**09'35

evening set

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 33 Attention, astronomical year style is used: The year -4534 in astronomical counting style is the year 4535 BCE in historical counting style.

Attention, astronom	nical year style is used: The	ne year -4534	in astronomical cou	unting style is the year	4535 BCE in historical of	counting style.	
conjunction	-4534 May 18 j 04:37			evening set	-4528 Nov 11 j 07:52	26° ≏ 50'06	
minimum elong	-4534 May 18 j 04:39						
max. Earth dist.	-4534 May 18 j 18:37		6.25855 AU	conjunction	-4528 Nov 24 j 02:19		0°08'05
morning rise	-4534 May 31 j 19:53			minimum elong	-4528 Nov 24 j 02:19		0°07'58
	-4534 Jul 04 j 07:18	0°8		behind sun begin	-4528 Nov 23 j 19:05		
retrograde	-4534 Oct 01 j 23:20			behind sun end	-4528 Nov 24 j 09:32		6 10 712 1 1 1
asc. node	-4534 Nov 24 j 09:28	6° 8 32'28	0001102	max. Earth dist.	-4528 Nov 23 j 20:00		6.10712 AU
opposition	-4534 Nov 30 j 10:55	5° 8 44'12			-4528 Nov 24 j 19:03	0°M	
min. Earth dist.	-4534 Nov 30 j 09:42	5° 8 44'36	4.30560 AU	morning rise desc. node	-4528 Dec 06 j 22:42	2°M51'26	
direct	-4533 Jan 30 j 09:48 -4533 May 20 j 07:13	0° 8 40'35		desc. node	-4527 Jan 26 j 23:20		
evening set	-4533 May 20 J 07.13 -4533 Jun 07 j 08:51			retrograde	-4527 Feb 01 j 15:04 -4527 Apr 15 j 20:44		
evening set	-4333 Juli 07 J 08.31	16 033 02		opposition	-4527 Apr 15 j 20.44 -4527 Jun 15 j 17:16		0°-26'-24
conjunction	-4533 Jun 20 j 19:05	21°250'00	0°24'05	min. Earth dist.	-4527 Jun 15 j 17:10		4.06367 AU
minimum elong	-4533 Jun 20 j 19:03		0°24'15	mm. Latti dist.	-4527 Jul 05 j 10:33		4.00307 710
max. Earth dist.	-4533 Jun 20 j 08:41			direct	-4527 Aug 13 j 21:50		
morning rise	-4533 Jul 04 j 02:17		0.5 1 100 110		-4527 Sep 21 j 18:05		
	-4533 Jul 28 j 16:17	0°II			-4527 Dec 09 j 01:53	0° ⊼ ¹	
retrograde	-4533 Nov 01 j 23:44			evening set	-4527 Dec 15 j 21:29	1° ∡ ³36′20	
opposition	-4533 Dec 31 j 20:55	7° Ⅱ 04'33	1°05'01	S	,		
min. Earth dist.	-4532 Jan 01 j 10:11	7° Ⅱ 00′13	4.37299 AU	conjunction	-4527 Dec 28 j 22:54	4° ∡ ¹42'43	0°-41'-8
direct	-4532 Mar 02 j 21:33	2° Ⅱ 01'06		minimum elong	-4527 Dec 28 j 22:51	4° ∡ ¹42'41	0°41'20
evening set	-4532 Jul 08 j 18:08	19° Ⅱ 59'00		max. Earth dist.	-4527 Dec 29 j 16:44	4° ∡ °53′20	6.03240 AU
				morning rise	-4526 Jan 11 j 03:40	7° ∡ ¹50'55	
conjunction	-4532 Jul 21 j 18:57	22° Ⅱ 50′16	1°02'29	retrograde	-4526 May 23 j 01:33	28° ₹ 03'25	
minimum elong	-4532 Jul 21 j 18:53	22° Ⅱ 50′15	1°02'43	opposition	-4526 Jul 22 j 09:51	23° ₹ ¹00'38	-1°-32'-45
max. Earth dist.	-4532 Jul 20 j 14:12	22° Ⅱ 34'29	6.38765 AU	min. Earth dist.	-4526 Jul 21 j 13:08	23° х 07′35	4.01680 AU
morning rise	-4532 Aug 03 j 16:17	25° Ⅱ 39'53		direct	-4526 Sep 18 j 15:33	18° ∡ ¹06'45	
	-4532 Aug 23 j 22:09	0 \circ \odot			-4526 Dec 19 j 19:30	0°ප	
retrograde	-4532 Dec 01 j 22:14	12° © 41'17		evening set	-4525 Jan 21 j 04:09	7° る 23'17	
opposition	-4531 Jan 31 j 06:57	7° 5 49'03	1°49'31				
min. Earth dist.	-4531 Feb 01 j 07:38	7° © 41'07	4.38976 AU	conjunction	-4525 Feb 03 j 13:14		
direct	-4531 Apr 03 j 21:52	2° © 47'06		minimum elong	-4525 Feb 03 j 13:11		1°16'06
evening set	-4531 Aug 09 j 02:32			max. Earth dist.	-4525 Feb 05 j 04:55		6.01668 AU
max. Earth dist.	-4531 Aug 20 j 02:37	23°906'35	6.37553 AU	morning rise	-4525 Feb 17 j 01:22		
. ,.	4521 A 21:10.56	220620154	1922/50	. 1	-4525 May 08 j 11:09	0°≈	
conjunction	-4531 Aug 21 j 18:56			retrograde	-4525 Jun 28 j 21:17	3°≈59'21	
minimum elong	-4531 Aug 21 j 18:54 -4531 Sep 03 j 08:49		1°23'11	min. Earth dist.	-4525 Aug 19 j 12:45 -4525 Aug 26 j 11:24		4.02554 ATT
morning rise	-4531 Sep 03 j 08.49 -4531 Sep 20 j 13:57	20 3 13 33		opposition	-4525 Aug 20 j 11.24 -4525 Aug 27 j 15:13		
retrograde	-4530 Jan 02 j 13:59	13° Ω 30'04		direct	-4525 Oct 24 j 15:48		-2 -4-13
opposition	-4530 Mar 04 j 09:28	8° Ω 38'36	2°03'36	direct	-4525 Dec 26 j 12:50	0°≈	
min. Earth dist.	-4530 Mar 05 j 15:11	8° Ω 29'09	4.35040 AU	evening set	-4524 Feb 27 j 07:00		
direct	-4530 May 05 j 22:44	3° Ω 38'59	1.550 10 110	evening sec	-4524 Mar 05 j 23:06		
	-4530 Aug 09 j 05:08	15° Ω			102 1 11 ar 00 j 25.00	10 .0.	
evening set	-4530 Sep 09 j 02:40	21° Ω 39'13		conjunction	-4524 Mar 11 j 22:22	16° ≈ 23'37	-1°-22'00
max. Earth dist.	-4530 Sep 20 j 00:23		6.31125 AU	minimum elong	-4524 Mar 11 j 22:24	16° ≈ 23'38	1°22'11
				max. Earth dist.	-4524 Mar 13 j 18:51	16° ≈ 49'34	6.06682 AU
conjunction	-4530 Sep 21 j 15:01	24° Ω 28'08	1°20'01	morning rise	-4524 Mar 25 j 15:59	19° ≈ 35′20	
minimum elong	-4530 Sep 21 j 15:03	24° Ω 28'09	1°20'09		-4524 May 12 j 14:43	0°) €	
morning rise	-4530 Oct 04 j 01:54	27° Ω 16'31		retrograde	-4524 Aug 02 j 02:19	9° ∺ 11'55	
	-4530 Oct 16 j 08:19	0° т		min. Earth dist.	-4524 Sep 29 j 10:49	4°) (16′12	4.11193 AU
retrograde	-4529 Feb 04 j 14:04	15°Mp06'00		opposition	-4524 Sep 30 j 12:52	4°) €07'17	-1°-49'-1
opposition	-4529 Apr 06 j 17:38	10°M 13'32	1°41'58		-4524 Nov 05 j 07:55	30°R≈	
min. Earth dist.	-4529 Apr 07 j 19:01	10° Mp 05'28	4.26492 AU	direct	-4524 Nov 28 j 03:22	29° ≈ 07'19	
direct	-4529 Jun 07 j 12:24	5° Mp 16′49			-4524 Dec 21 j 05:44	0° ∀	
evening set	-4529 Oct 10 j 14:06	23°m/33'00		evening set	-4523 Apr 03 j 23:35	18° ∺ 04'51	
max. Earth dist.	-4529 Oct 21 j 23:07	26° Mp 10'05	6.21198 AU		4500 1 1511	0101/1	00 501 5
	4500 0 1 00 100 11	260 - 2511	0053103	conjunction	-4523 Apr 17 j 18:10		0°-58'-20
conjunction	-4529 Oct 23 j 03:14		0°53'02	minimum elong	-4523 Apr 17 j 18:14		0°58'24
minimum elong	-4529 Oct 23 j 03:17	26° Mp 26'21	0°53'04	max. Earth dist.	-4523 Apr 19 j 03:24		6.16313 AU
morning rise	-4529 Nov 04 j 16:56	29° m/20'05		morning rise	-4523 May 01 j 12:51		
ratrograda	-4529 Nov 07 j 14:41	0° ಲ 18° ಲ 01'00		retrograda	-4523 May 27 j 05:17	0° Υ 12° Υ 59'39	
retrograde opposition	-4528 Mar 10 j 10:47 -4528 May 10 j 14:02	18° 22 01'00 13° 2 05'45	0°47'13	retrograde opposition	-4523 Sep 04 j 13:08 -4523 Nov 02 j 20:38	7° Υ 57'46	0°-56'-56
min. Earth dist.	-4528 May 10 j 14:02 -4528 May 11 j 03:12		4.15769 AU	min. Earth dist.	-4523 Nov 02 j 20:38 -4523 Nov 02 j 06:21	8° Υ 02'37	4.21746 AU
direct	-4528 Jul 10 j 03:26	8° £ 11'31	7.13/03 AU	direct	-4522 Jan 01 j 16:35	8 1 02 37 2° Υ 55'12	т.21/40 AU
311000	1020 301 10 1 03.20	5 — 11 51		311001	1322 Juli 01 J 10.33	2 1 33 12	

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, page 34 Attention, astronomical year style is used: The year -4522 in astronomical counting style is the year 4523 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	ne year -4522	in astronomical cou	inting style is the year	4523 BCE in historical of	counting style.	
evening set	-4522 May 09 j 07:34	21° Y 27'35		max. Earth dist.	-4517 Oct 26 j 13:25	0° ≙ 50'47	6.19629 AU
				morning rise	-4517 Nov 09 j 04:44	4° £ 00'00	
conjunction	-4522 May 22 j 23:59		0°-15'-52	retrograde	-4516 Mar 15 j 09:45		
minimum elong	-4522 May 23 j 00:00		0°15'48	opposition	, ,	17° ≏ 53'10	0°37'38
max. Earth dist.	-4522 May 23 j 11:36		6.27033 AU	min. Earth dist.	-4516 May 15 j 23:42		4.14189 AU
morning rise	-4522 Jun 05 j 14:24			direct	-4516 Jul 14 j 21:00	12° ⊆ 59'14	
	-4522 Jun 16 j 21:18	0°8			-4516 Nov 08 j 18:08	0°M	
	-4522 Sep 23 j 08:53			evening set	-4516 Nov 16 j 00:32	1°M41'39	
asc. node	-4522 Oct 04 j 08:47				451637 20:10.42	40 W 40141	0001101
retrograde	-4522 Oct 06 j 07:38			conjunction	-4516 Nov 28 j 19:43	4°M42'41	0°01'04
	-4522 Oct 19 j 06:14		0010120	minimum elong	-4516 Nov 28 j 19:44	4°M42'41	0°00'57
opposition min. Earth dist.	-4522 Dec 04 j 21:05 -4522 Dec 04 j 20:55			behind sun begin behind sun end	-4516 Nov 28 j 11:40 -4516 Nov 29 j 03:49	4°M37'57 4°M47'26	
direct	-4521 Feb 03 j 23:21	5° 8 14'48	4.31002 AU	max. Earth dist.	-4516 Nov 28 j 15:28	4°M40'12	6.09261 AU
direct	-4521 May 02 j 09:51			desc. node	-4516 Dec 07 j 00:41	6°M38'54	0.09201 AU
evening set	-4521 Jun 11 j 23:38			morning rise	-4516 Dec 11 j 17:23	7°M45'08	
evening set	-4321 Juli 11 j 23.36	23 02441		morning risc	-4515 Jan 12 j 17:50		
conjunction	-4521 Jun 25 j 08:36	26° ∺ 20'45	0°30'14	retrograde	-4515 Apr 21 j 00:06		
minimum elong	-4521 Jun 25 j 08:33			opposition	-4515 Jun 20 j 19:30		0°-36'-47
max. Earth dist.	-4521 Jun 24 j 19:50			min. Earth dist.	-4515 Jun 20 j 12:14		4.05186 AU
morning rise	-4521 Jul 08 j 14:25		0.50 .12110	direct	-4515 Aug 18 j 20:07		
morning rise	-4521 Jul 12 j 00:45	0°II		unior	-4515 Nov 21 j 20:13	0° ⊼ ¹	
retrograde	•	16° Ⅲ 25'31		evening set	-4515 Dec 20 j 20:56	6° ∡ 740'19	
opposition	-	11° Ⅲ 31′08	1°12'43	<i>3</i>	,		
min. Earth dist.	·	11° Ⅱ 26′06		conjunction	-4514 Jan 02 j 23:37	9° ∡ ¹47'34	0°-47'-16
direct	-4520 Mar 07 j 10:12	6° Ⅱ 27'46		minimum elong	-4514 Jan 02 j 23:33	9° ∡ ¹47'32	0°47'30
evening set	-4520 Jul 13 j 04:10	24° Ⅱ 23'52		max. Earth dist.	-4514 Jan 03 j 22:19	10° ∡ *01′06	6.02454 AU
max. Earth dist.	-4520 Jul 24 j 20:09		6.39060 AU	morning rise	-4514 Jan 16 j 05:23		
					-4514 Apr 12 j 06:51	0°ರ	
conjunction	-4520 Jul 26 j 03:36	27° Ⅱ 14'27	1°06'36	retrograde	-4514 May 28 j 08:06	3° る 12'22	
minimum elong	-4520 Jul 26 j 03:33	27° Ⅱ 14'25	1°06'49		-4514 Jul 13 j 10:37	30°₹ ⋌ ¹	
morning rise	-4520 Aug 07 j 23:45	0° ട്ട 03'25		opposition	-4514 Jul 27 j 12:56	28° ₹ ′09′13	-1°-39'-45
	-4520 Aug 07 j 17:31	0		min. Earth dist.	-4514 Jul 26 j 15:02	28° х 16′34	4.01416 AU
retrograde	-4520 Dec 06 j 06:18	17° 5 04'35		direct	-4514 Sep 23 j 16:44	23° ∡ 15′07	
opposition	-4519 Feb 04 j 16:49	12° © 12'30	1°53'28		-4514 Nov 29 j 05:50	0°ප	
min. Earth dist.	-4519 Feb 05 j 18:30	12° © 04'15	4.38889 AU	evening set	-4513 Jan 26 j 08:38	12° る 32'54	
direct	-4519 Apr 08 j 08:20	7° © 10'44					
evening set	-4519 Aug 13 j 09:58			conjunction	-4513 Feb 08 j 18:33		
max. Earth dist.	-4519 Aug 24 j 09:52	27° © 30'07	6.37070 AU	•	-4513 Feb 08 j 18:31		
				max. Earth dist.	-4513 Feb 10 j 11:34		6.01945 AU
conjunction	-4519 Aug 26 j 01:34		1°24'02	morning rise	-4513 Feb 22 j 07:48		
minimum elong	-4519 Aug 26 j 01:33	27° 9 52'09	1°24'14		-4513 Apr 13 j 18:21	0° ≈	
	-4519 Sep 04 j 15:59	0° N		retrograde	-4513 Jul 03 j 21:17	9°≈06'24	4.04201 ATT
morning rise	-4519 Sep 07 j 14:33	0° Ω 38'59		min. Earth dist.	-4513 Aug 31 j 09:34	4°≈11'20	4.04391 AU
ratra ara da	-4519 Nov 23 j 14:10 -4518 Jan 07 j 01:00	15° Ω 17° Ω 56'18		opposition	-4513 Sep 01 j 15:02 -4513 Oct 06 j 08:30	4°≈01'17 30°Rる	-2°-4'-51
retrograde	-4518 Feb 21 j 08:55	17 3ℓ 30 18 15°R Ω		direct	-4513 Oct 06 j 08.30		
opposition	-4518 Mar 08 j 22:09	13° Ω 04'50	2°02'44	uncet	-4513 Nov 22 j 03:36	29 004 10 0°≈	
min. Earth dist.	-4518 Mar 10 j 03:58		4.34181 AU		-4512 Feb 18 j 03:02	0 ∞ 15° ≈	
direct	-4518 May 10 j 09:43	8° Ω 05'35	1.5 1101 110	evening set	-4512 Mar 03 j 11:38		
ancet	-4518 Jul 21 j 02:56	15°Ω		evening set	4312 Mai 03 j 11.30	10 70.17 13	
evening set	-4518 Sep 13 j 10:18	26° Ω 07'15		conjunction	-4512 Mar 17 j 03:42	21° ≈ 27'42	-1°-20'-19
max. Earth dist.	-4518 Sep 24 j 06:56		6.29946 AU	minimum elong	-4512 Mar 17 j 03:45		1°20'28
	,			max. Earth dist.	-4512 Mar 19 j 00:19		6.08020 AU
conjunction	-4518 Sep 25 j 22:19	28° Ω 56'31	1°17'38	morning rise	-4512 Mar 30 j 21:37		
minimum elong	-4518 Sep 25 j 22:21	28° £ 56'33	1°17'45	<i>5</i> -	-4512 Apr 23 j 15:27	0°) €	
Ž.	-4518 Sep 30 j 14:30	0°mp		retrograde	-4512 Aug 06 j 21:33		
morning rise	-4518 Oct 08 j 09:25	1° mp 45'27		min. Earth dist.	-4512 Oct 04 j 06:28	9° ∺ 11'05	4.12874 AU
retrograde	-4517 Feb 09 j 07:56	19° m 41'10		opposition	-4512 Oct 05 j 06:50	9°) €02'46	-1°-43'-29
opposition	-4517 Apr 11 j 11:08	14°M 48'21	1°36'10	direct	-4512 Dec 03 j 02:27	4°) €02'22	
min. Earth dist.	-4517 Apr 12 j 11:42	14° m 40'31	4.25047 AU	evening set	-4511 Apr 08 j 23:37	22°) 55′11	
direct	-4517 Jun 12 j 02:37	9° m 51'56					
evening set	-4517 Oct 15 j 00:36	28° My 11'03		conjunction	-4511 Apr 22 j 18:13	26°) 02′20	0°-53'-13
	-4517 Oct 22 j 21:39	0∘ ত		minimum elong	-4511 Apr 22 j 18:17		0°53'15
				max. Earth dist.	-4511 Apr 24 j 02:00		6.18207 AU
conjunction	-4517 Oct 27 j 14:25	1° ჲ 05'16		morning rise	-4511 May 06 j 12:32		
minimum elong	-4517 Oct 27 j 14:29	1° ≏ 05'17	0°47'39		-4511 May 10 j 07:11	0° Y	

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:34, Attention, astronomical year style is used: The year -4511 in astronomical counting style is the year 4512 BCE in historical counting style. -4511 Sep 08 i 22:57 17° γ'38'26 direct -4505 Jun 16 j 16:06 14° m 28'22 retrograde opposition -4511 Nov 07 j 08:09 12°**Υ**37'02 0°-48'00 -4505 Oct 06 j 21:59 0∘⊽ min. Earth dist. -4511 Nov 06 j 18:47 12°**Υ**41'33 -4505 Oct 19 j 12:33 4 23663 AU 2°**♀**52'31 evening set 7°**Ƴ**34'12 -4505 Oct 31 j 03:16 -4510 Jan 06 j 07:56 max. Earth dist. 5°**£**34'07 direct 6.17579 AU -4510 May 14 j 00:37 26°**Υ**01'30 evening set -4505 Nov 01 j 02:54 conjunction 5°**£**47'52 0°41'52 -4510 May 27 j 16:05 29°**Υ**02'57 0°-9'-27 -4505 Nov 01 j 02:57 conjunction minimum elong 5°**£**47'54 0°41'52 -4510 May 27 j 16:06 29°**Υ**02'57 -4505 Nov 13 j 18:19 minimum elong 0°09'22 morning rise 8°**£**43'56 -4510 May 27 j 09:13 28°**Υ**59'09 behind sun begin retrograde -4504 Mar 20 j 11:02 27°**£**42'39 behind sun end -4510 May 27 j 22:59 29°**Y**06'45 opposition -4504 May 20 j 13:15 22°**2**46'25 0°27'38 max. Earth dist. -4510 May 27 j 23:17 29°**Y**06′55 6.28821 AU min. Earth dist. -4504 May 20 j 21:06 22°**♀**43'53 4.12260 AU -4504 Jul 19 j 16:20 17°**♀**52'44 -4510 May 31 j 22:49 0° 8 direct -4504 Oct 16 j 09:22 28° **2**41'41 morning rise -4510 Jun 10 j 05:32 2°803'11 desc. node asc. node -4510 Aug 15 j 16:32 15°**8**02'23 -4504 Oct 22 j 12:12 0°M -4510 Aug 15 j 10:16 15°**8** evening set -4504 Nov 20 j 19:41 6°M40'15 retrograde -4510 Oct 10 j 14:32 19°**8**40'44 -4510 Dec 07 j 01:47 15°R8 conjunction -4504 Dec 03 j 16:07 9°**™**42′29 0°-6'-8 opposition -4510 Dec 09 j 04:18 14°843'15 0°19'50 minimum elong -4504 Dec 03 j 16:07 9°**™**42'29 0°06'16 min. Earth dist. -4510 Dec 09 j 07:26 14°**8**42'13 4.33164 AU behind sun begin -4504 Dec 03 j 08:28 9°M37'58 direct -4509 Feb 08 j 11:54 9°**8**39'28 behind sun end -4504 Dec 03 j 23:46 9°M47'00 -4509 Apr 11 j 18:53 15°8 max. Earth dist. -4504 Dec 03 j 17:30 9°M43'17 6.07646 AU evening set -4509 Jun 16 j 09:58 27°**8**45'38 morning rise -4504 Dec 16 j 14:51 12°M46'10 -4509 Jun 26 j 15:32 $0^{\circ}\Pi$ -4504 Dec 26 i 04:08 15°M -4503 Mar 15 j 19:00 0°×7 -4509 Jun 29 i 17:44 0°**II**40'44 0°35'57 retrograde -4503 Apr 26 j 08:22 2°×36'21 conjunction -4509 Jun 29 j 17:42 0°II40'43 0°36'09 -4503 Jun 07 j 00:24 30°RML minimum elong -4509 Jun 29 j 01:55 0°**Ⅲ**32′03 -4503 Jun 26 j 00:35 27°MJ36'13 0°-47'-6 max Earth dist 6.36491 AU opposition -4509 Jul 12 j 22:08 3°**Ⅱ**34'09 -4503 Jun 25 j 15:00 27° M 39'22 4.04056 AU morning rise min. Earth dist. -4509 Nov 10 j 10:45 20°**Д**41'04 -4503 Aug 23 j 21:35 22°M43'14 retrograde direct -4508 Jan 09 j 11:15 15°**Ⅱ**47'05 1°19'42 -4503 Nov 01 j 15:25 0°**尽** opposition -4508 Jan 10 j 04:09 15°**Ⅱ**41'35 4.38571 AU -4503 Dec 25 j 23:21 11° ₹ 51'36 min. Earth dist. evening set -4508 Mar 11 j 17:02 10°**Ц**43'50 direct -4502 Jan 08 j 02:57 14° **₹** 59'31 -4508 Jul 17 j 10:14 28°**Ⅲ**38'42 conjunction 0°-53'-9 evening set -4502 Jan 08 j 02:53 14° ₹ 59'29 -4508 Jul 23 j 14:56 0ಂತಾ minimum elong 0°53'23 -4508 Jul 28 j 22:35 -4502 Jan 09 j 04:36 15°**又** 14'49 max. Earth dist. 1°**©**10'07 6.39131 AU max. Earth dist. 6.01880 AU -4502 Jan 21 j 10:01 18° ₹ 09'17 morning rise -4508 Jul 30 j 08:25 1°528'44 1°10'11 -4502 Mar 16 j 12:43 0°る conjunction minimum elong -4508 Jul 30 j 08:22 1°**©**28'42 1°10'24 retrograde -4502 Jun 02 j 12:52 8°**る**26'52 morning rise -4508 Aug 12 j 03:23 4°9517'12 opposition -4502 Aug 01 j 17:27 3°る23'13 -1°-46'-3 retrograde -4508 Dec 10 j 12:32 21°519'21 min. Earth dist. -4502 Jul 31 j 16:30 3°る31'36 4.01485 AU -4507 Feb 08 j 23:41 16°527'31 1°56'41 -4502 Aug 29 j 14:55 30°R*X* opposition min. Earth dist. -4507 Feb 10 j 03:30 16°5518'37 4.38426 AU -4502 Sep 28 j 18:42 28° ₹28'46 direct -4507 Apr 12 j 15:51 11°526'03 -4502 Oct 28 j 22:17 direct -4507 Aug 17 j 14:29 29°520'46 -4501 Jan 31 j 14:43 17°₹46'26 evening set evening set -4507 Aug 20 j 13:27 0° Ω -4501 Feb 14 i 01:38 20°る57'06 -1°-20'-48 max. Earth dist. -4507 Aug 28 j 11:11 1°**Ω**45'22 6.36076 AU conjunction minimum elong -4501 Feb 14 i 01:36 20°る57'05 1°21'02 conjunction -4507 Aug 30 i 05:22 2°Ω08'51 1°24'35 max. Earth dist. -4501 Feb 15 i 21:03 21°る22'47 6.02602 AU minimum elong -4507 Aug 30 i 05:21 2°**Ω**08'51 1°24'47 morning rise -4501 Feb 27 i 15:34 24°る09'16 -4507 Sep 11 j 17:57 4°Ω55'53 -4501 Mar 25 i 04:58 morning rise -4507 Oct 30 j 18:08 15°Ω retrograde -4501 Jul 08 i 22:57 14°≈15'02 -4506 Jan 11 j 12:10 22° Ω18'31 min. Earth dist. -4501 Sep 05 j 10:13 retrograde 9°≈19'36 4 05538 AU -4506 Mar 13 j 09:37 $17^{\circ}\Omega 26'57$ $2^{\circ}01'15$ -4501 Sep 06 j 14:57 9°**≈**09'47 -2°-4'-30 opposition opposition min. Earth dist. -4506 Mar 14 j 15:19 17° Ω 17'31 4.32728 AU direct -4501 Nov 03 j 18:39 4°≈12'14 -4506 Apr 02 j 13:39 15°**RΩ** -4500 Jan 30 j 20:09 15°≈ direct -4506 May 14 j 18:08 12°Ω28'03 evening set -4500 Mar 08 j 16:20 23°≈22'00 -4506 Jun 25 j 13:39 15°**Ω** -4506 Sep 15 j 05:26 -4500 Mar 22 j 09:02 26°≈32'04 -1°-18'-2 0° m conjunction -4500 Mar 22 j 09:04 26°≈32'05 evening set -4506 Sep 17 j 16:45 0° m 33'20 minimum elong 1°18'10 -4506 Sep 28 j 15:39 3°Mp02'10 6.28157 AU -4500 Mar 24 j 05:41 26°≈57'55 max. Earth dist. max. Earth dist. 6.09532 AU morning rise -4500 Apr 05 j 03:15 29°≈42'43 conjunction -4506 Sep 30 j 04:56 3° Mp 23'21 1°14'49 -4500 Apr 06 j 09:22 0°**)** minimum elong -4506 Sep 30 j 04:58 3° m 23'23 1°14'55 retrograde -4500 Aug 11 j 14:57 19°**米**02'01 morning rise -4506 Oct 12 j 16:07 6° Tp 13'06 min. Earth dist. -4500 Oct 09 j 00:27 14° **★** 06'04 4.14584 AU retrograde -4505 Feb 14 j 02:22 24° m 17'23 opposition -4500 Oct 10 j 00:18 13° **★**57'56 -1°-37'-16 -4505 Apr 16 j 05:09 19° m 24'20 -4500 Dec 07 j 22:45 8°**升**57′07 opposition 1°29'46 direct -4505 Apr 17 j 04:42 19° Mp 16'50 4.23038 AU -4499 Apr 13 j 23:20 27° **₭** 45'26 min. Earth dist. evening set

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 36 Attention, astronomical year style is used: The year -4499 in astronomical counting style is the year 4500 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	ne year -4499	in astronomical cou	unting style is the year	4500 BCE in historical of	counting style.	
	-4499 Apr 23 j 22:06	0 ° Υ		morning rise	-4494 Oct 17 j 02:17	10°Mp48'16	
				retrograde	-4493 Feb 18 j 22:23	29° Mp 00'01	
conjunction	-4499 Apr 27 j 17:40	0° Y 51'45	0°-47'-44	opposition	-4493 Apr 21 j 02:00	24° Mp 06'36	1°22'37
minimum elong	-4499 Apr 27 j 17:44	0° Y 51'47	0°47'45	min. Earth dist.	-4493 Apr 21 j 22:52	23° m 59'56	4.21452 AU
max. Earth dist.	-4499 Apr 28 j 21:05	1° Y 07'15	6.19974 AU	direct	-4493 Jun 21 j 08:13	19° m 11'03	
morning rise	-4499 May 11 j 11:41	3° Y 57'38			-4493 Sep 19 j 14:14	0∘ ⊽	
retrograde	-4499 Sep 13 j 10:52	22° Y 18'11		evening set	-4493 Oct 24 j 02:24	7° ₽ 38'31	
opposition	-4499 Nov 11 j 20:09	17° Ƴ 17'16	0°-38'-45		v		
min. Earth dist.	-4499 Nov 11 j 09:51	17° Y ′20'44	4.25317 AU	conjunction	-4493 Nov 05 j 17:33	10° ≏ 34'50	0°35'45
direct	-4498 Jan 11 j 01:28	12° Ƴ 14'11		minimum elong	-4493 Nov 05 j 17:35	10° ≏ 34'51	0°35'43
	-4498 May 15 j 21:52	0°8		max. Earth dist.	-4493 Nov 04 j 22:41	10° Ω 23'49	6.16091 AU
evening set	-4498 May 18 j 18:08	0° 8 37'28		morning rise	-4493 Nov 18 j 09:42	13° Ω 31'54	
v. v		. 0.,		8	-4492 Feb 12 j 13:46	0°M	
conjunction	-4498 Jun 01 j 08:54	3° 8 38'00	0°-2'-55	retrograde	-4492 Mar 25 j 14:31	2°M38'13	
minimum elong	-4498 Jun 01 j 08:54	3° 8 38'00	0°02'50	retrograde	-4492 May 07 j 00:28		
behind sun begin	-4498 Jun 01 j 00:39	3° 8 33'27	0 02 30	opposition	-4492 May 25 j 14:59		0°17'19
behind sun end	-4498 Jun 01 j 17:09	3° 8 42'33		min. Earth dist.	-4492 May 25 j 20:51		4.10992 AU
max. Earth dist.	-4498 Jun 01 j 17:09	3° 8 40'37	6.30251 AU	direct	-4492 Jul 24 j 14:26		4.10//2 AU
morning rise	-4498 Jun 14 j 21:06	6° 8 37'10	0.30231 AU	desc. node	-4492 Aug 26 j 03:04		
•	•	9° 8 00'22		desc. Hode		24 = 2920 0° M	
asc. node	-4498 Jun 25 j 19:56	15° 8			-4492 Oct 02 j 19:38		
, 1	-4498 Jul 25 j 00:01			evening set	-4492 Nov 25 j 15:25	11 1163616	
retrograde	-4498 Oct 14 j 20:52	24° 8 08'39	0020101		4400 D 00:10.00	1.40 M .4110.0	00 121 10
opposition	-4498 Dec 13 j 12:45	19° 8 11'43		conjunction	-4492 Dec 08 j 12:38		0°-13'-10
min. Earth dist.	-4498 Dec 13 j 17:20	19° 8 10'12	4.34281 AU	minimum elong	-4492 Dec 08 j 12:37		0°13'19
	-4497 Jan 20 j 06:56	15° ₹8		behind sun begin	-4492 Dec 08 j 07:51		
direct	-4497 Feb 12 j 23:06	14° 8 07'55		behind sun end	-4492 Dec 08 j 17:23	14° M 44′08	
	-4497 Mar 08 j 23:31			max. Earth dist.	-4492 Dec 08 j 16:54		6.06718 AU
	-4497 Jun 10 j 18:13	Π $^{\circ}0$			5	15° ™	
evening set	-4497 Jun 20 j 22:16	2° Ⅱ 11'42		morning rise	-4492 Dec 21 j 12:37		
max. Earth dist.	-4497 Jul 03 j 08:31	4° ∏ 54'56	6.37205 AU		-4491 Feb 16 j 04:11	0° ∡ 7	
				retrograde	-4491 May 01 j 11:39	7° ∡ ¹40'49	
conjunction	-4497 Jul 04 j 04:36	5° Ⅱ 05'57	0°41'37	opposition	-4491 Jul 01 j 03:34	2° ҂ 740′07	0°-56'-55
minimum elong	-4497 Jul 04 j 04:33	5° Ⅱ 05'55	0°41'48	min. Earth dist.	-4491 Jun 30 j 14:23	2° ∡ ¹44′28	4.03582 AU
morning rise	-4497 Jul 17 j 07:47	7° Ⅱ 58'32			-4491 Jul 22 j 13:22	30°RM	
retrograde	-4497 Nov 14 j 18:38	25° Ⅱ 03'16		direct	-4491 Aug 28 j 20:09	27° M 47'04	
opposition	-4496 Jan 13 j 19:35	20° Ⅱ 09'41	1°26'28		-4491 Oct 04 j 16:58	0° ∡ ¹	
min. Earth dist.	-4496 Jan 14 j 15:23	20° Ⅲ 03'15	4.38855 AU	evening set	-4491 Dec 31 j 00:00	16° ∡ ¹56'32	
direct	-4496 Mar 16 j 04:31	15° Ⅱ 06'35					
	-4496 Jul 07 j 18:59	0°€		conjunction	-4490 Jan 13 j 04:38	20° х 04′52	0°-58'-30
evening set	-4496 Jul 21 j 18:49	3°900'57		minimum elong	-4490 Jan 13 j 04:34		
max. Earth dist.	-4496 Aug 02 j 04:18	5° © 30'57	6.38943 AU	max. Earth dist.	-4490 Jan 14 j 10:09		6.01885 AU
	0 3			morning rise	-4490 Jan 26 j 12:33		
conjunction	-4496 Aug 03 j 15:55	5°950'34	1°13'30	Ü	-4490 Feb 24 j 23:13	ರ°0	
minimum elong	-4496 Aug 03 j 15:52	5°950'32		retrograde	-4490 Jun 07 j 15:33		
morning rise	-4496 Aug 16 j 09:45	8°938'38		opposition	-4490 Aug 06 j 18:13		-1°-51'-17
retrograde	-4496 Dec 14 j 21:00	25°5642'35		min. Earth dist.	-4490 Aug 05 j 16:53	8° ප 36'38	4.01973 AU
opposition	-4495 Feb 13 j 10:15	20°\$50'53	1°59'24	direct	-4490 Oct 03 j 19:52	3° ප 33'16	01975110
min. Earth dist.	-4495 Feb 14 j 14:11	20°5541'57	4.37810 AU	evening set	-4489 Feb 05 j 17:10		
direct	-4495 Apr 17 j 01:11	15°9549'43	57010110	evening sec	1.05 1 00 00 17.10	22 0 17 11	
ancer	-4495 Aug 04 j 15:02	0°Ω		conjunction	-4489 Feb 19 j 04:58	26°云00'19	-1°-22'-16
evening set	-4495 Aug 21 j 22:21	3° Ω 45'52		minimum elong	-4489 Feb 19 j 04:57		1°22'29
max. Earth dist.	-4495 Sep 01 j 18:52		6.35081 AU	max. Earth dist.	-4489 Feb 21 j 01:49		6.03503 AU
max. Earth dist.	-4493 Sep 01 j 16.32	0 0610 40	0.55081 AU	morning rise	-4489 Mar 04 j 19:38		0.03303 AU
:	4405 C 02 : 12-22	(0.024102	1024142	morning rise	-		
conjunction	-4495 Sep 03 j 12:33	6° Ω 34'03			-4489 Mar 08 j 05:20	0°≈	
minimum elong	-4495 Sep 03 j 12:33	6° Ω 34'03	1-24-32	. 1	-4489 May 21 j 23:55		
morning rise	-4495 Sep 16 j 00:36	9° Ω 21'16		retrograde	-4489 Jul 13 j 19:34		
	-4495 Oct 12 j 04:05	15° Ω			-4489 Sep 04 j 22:53		406764 477
retrograde	-4494 Jan 16 j 03:09	26° Ω 49'03	1050150	min. Earth dist.	-4489 Sep 10 j 05:26		4.06764 AU
opposition	-4494 Mar 18 j 00:49	21°Ω57'27		opposition	-4489 Sep 11 j 10:23		-2°-3'-14
min. Earth dist.	-4494 Mar 19 j 06:56	21° Ω 47'53	4.31416 AU	direct	-4489 Nov 08 j 15:15	9° ≈ 09'13	
direct	-4494 May 19 j 07:47	16° Ω 59'00			-4488 Jan 09 j 19:28	15° ≈	
	-4494 Aug 29 j 21:12	0° m)		evening set	-4488 Mar 13 j 17:03	28°≈16′00	
evening set	-4494 Sep 22 j 02:27	5° mp 07'04			-4488 Mar 21 j 05:46	0° ∀	
max. Earth dist.	-4494 Oct 03 j 01:47	7° Mp 36′42	6.26652 AU	_			
				conjunction	-4488 Mar 27 j 10:05	1°) €25'36	
conjunction	-4494 Oct 04 j 14:38		1°11'29	minimum elong	-4488 Mar 27 j 10:08	1° ∺ 25'38	
minimum elong	-4494 Oct 04 j 14:41	7° m ,57'44	1°11'35	max. Earth dist.	-4488 Mar 29 j 03:20	1°) 49′24	6.10958 AU

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, Attention, astronomical year style is used: The year -4488 in astronomical counting style is the year 4489 BCE in historical counting style. -4488 Apr 10 i 04:38 4° ★35'44 min. Earth dist. -4482 Mar 23 j 21:10 26° Ω21'40 4.30250 AU morning rise -4482 May 23 j 20:30 21° Ω 32'35 -4488 Aug 16 j 04:49 23° **)** 47'00 retrograde direct opposition -4488 Oct 14 j 13:55 18°\dagger443'16 -1°-30'-37 -4482 Aug 11 j 14:46 0° m -4488 Oct 13 j 16:20 18°**)** 50'38 4.16052 AU min. Earth dist. -4482 Sep 26 j 12:17 9° m 42'33 evening set -4488 Dec 12 j 16:48 13° **¥** 42'04 -4482 Oct 07 j 14:39 direct max. Earth dist. 12° Mp 14'22 6.25390 AU -4487 Apr 07 j 18:40 $0^{\circ}\Upsilon$ 2°Y27'08 -4482 Oct 09 j 00:34 12° m 33'45 evening set -4487 Apr 18 j 19:35 conjunction 1°07'41 -4482 Oct 09 j 00:37 12° m 33'47 minimum elong 1°07'45 5°**Y**32'49 -4482 Oct 21 j 12:28 15° **m** 24'58 conjunction -4487 May 02 j 13:57 0°-42'-7 morning rise minimum elong -4487 May 02 j 14:00 5°**Y**32'51 0°42'07 -4481 Jan 04 j 07:57 0∘**⊽** 5°**Y**47′06 max. Earth dist. -4487 May 03 j 15:17 6.21393 AU retrograde -4481 Feb 23 j 19:40 3°**≏**43'14 -4487 May 16 j 07:21 -4481 Apr 16 j 15:22 morning rise 8°**Ƴ**37'54 30°R, Mp -4481 Apr 25 j 22:53 retrograde -4487 Sep 17 j 19:51 26°**Y**51'16 opposition 28° Mp 49'25 1°14'53 opposition -4487 Nov 16 j 05:28 21°**Y**'50'58 0°-29'-33 min. Earth dist. -4481 Apr 26 j 18:48 28° Mp 43'03 4.20149 AU min. Earth dist. -4487 Nov 15 j 20:54 21°**Υ**53'51 4.26560 AU direct -4481 Jun 26 j 02:38 23° m 54'10 direct -4486 Jan 15 j 13:43 16°**Ƴ**47'46 -4481 Aug 30 j 07:20 0∘<u>ଫ</u> -4486 Apr 29 j 10:11 0°8 evening set -4481 Oct 28 j 15:55 12°**£**23'53 asc. node -4486 May 06 j 17:26 1°832'09 evening set -4486 May 23 j 09:38 5°808'42 conjunction -4481 Nov 10 j 07:39 15°**2**20'59 0°29'25 minimum elong -4481 Nov 10 j 07:41 15°**£**21'00 0°29'22 conjunction -4486 Jun 05 j 23:21 8°**8**08'27 0°03'36 max. Earth dist. -4481 Nov 09 j 14:50 15°**£**11'09 6.14856 AU minimum elong -4486 Jun 05 i 23:21 8°**8**08'27 0°03'44 morning rise -4481 Nov 23 i 00:49 18° **△**19'01 behind sun begin -4486 Jun 05 i 15:11 8°803'57 -4480 Jan 16 i 18:48 0°M behind sun end -4486 Jun 06 j 07:32 8°**8**12'57 retrograde -4480 Mar 30 j 14:13 7°M31'50 max. Earth dist. -4486 Jun 05 j 22:55 8°**8**08'13 6.31224 AU opposition -4480 May 30 j 15:04 2°M34'32 0°06'57 -4486 Jun 19 j 10:43 11°**8**06'50 min. Earth dist. -4480 May 30 j 17:33 2°M-33'44 4.09925 AU morning rise -4486 Jul 07 j 10:17 15°8 -4480 Jun 20 j 13:36 30°R ₽ -4486 Oct 19 j 04:24 28°**8**34'12 -4480 Jul 06 j 13:02 28° **△**31'47 retrograde desc node -4480 Jul 29 j 09:16 27°**2**41'14 -4486 Dec 17 j 20:36 23°**8**37'46 0°37'53 direct opposition -4486 Dec 18 j 04:07 23°**8**35'18 4.34936 AU -4480 Sep 05 j 14:35 0°M min. Earth dist. -4485 Feb 17 j 10:55 18°**8**34'00 -4480 Nov 23 j 18:16 15°M direct -4480 Nov 30 j 10:01 16°M33'43 -4485 May 24 j 21:50 evening set $0^{\circ}\Pi$ -4485 Jun 25 j 09:37 6°**Ⅲ**36′54 evening set -4480 Dec 13 j 08:14 19°M237'31 0°-20'-4 conjunction -4485 Jul 08 j 14:53 9°**Д**30'32 0°46'58 -4480 Dec 13 j 08:13 19°M237'29 conjunction minimum elong 0°20'15 -4485 Jul 08 j 14:50 9°**I**30'31 0°47'09 -4480 Dec 13 j 16:32 19°M42'26 minimum elong max. Earth dist. 6.05905 AU -4485 Jul 07 j 17:22 9°**Ⅱ**18'44 6.37494 AU -4480 Dec 26 j 09:12 22°M42'55 max. Earth dist. morning rise morning rise -4485 Jul 21 j 16:36 12°**Ⅲ**22'27 -4479 Jan 27 j 09:30 0°**∡**7 retrograde -4485 Nov 19 j 00:54 29°**Ⅱ**26'29 retrograde -4479 May 06 j 15:16 12°**尽** 42'10 opposition -4484 Jan 18 j 04:08 24°**Д**33'16 1°32'43 opposition -4479 Jul 06 j 05:01 7°**х** 40'54 -1°-6'-14 min. Earth dist. -4484 Jan 19 j 00:28 24°**Д**26'42 4.38799 AU min. Earth dist. -4479 Jul 05 j 14:42 7°**∡**¹45'39 4.03105 AU -4484 Mar 20 j 13:28 19°**Д**30'27 -4479 Sep 02 j 19:42 2° ₹ 47'40 direct direct -4484 Jun 20 j 15:48 -4478 Jan 04 j 23:33 21° ₹ 58'30 evening set -4484 Jul 26 j 04:00 evening set 7°9525'17 max. Earth dist. -4484 Aug 06 j 10:16 9°953'50 -4478 Jan 18 j 05:10 25° **₹** 07'18 -1°-3'-23 6.38536 AU conjunction minimum elong -4478 Jan 18 i 05:06 25° ₹ 07'16 1°03'36 -4478 Jan 19 i 13:28 25° ₹26'32 6.01772 AU conjunction -4484 Aug 07 j 23:50 10°5514'34 1°16'23 max. Earth dist. minimum elong -4484 Aug 07 j 23:48 10°514'32 1°16'37 morning rise -4478 Jan 31 i 14:08 28° ₹17'53 morning rise -4484 Aug 20 i 16:45 13°502'24 -4478 Feb 07 i 19:57 0°궁 retrograde -4484 Dec 09 i 17:17 -4478 Jun 12 i 16:39 18°₹34'47 $\Omega^{\circ}\Omega$ -4484 Dec 19 j 08:33 0°Ω08'46 opposition -4478 Aug 11 j 17:34 13°る30'29 -1°-55'-42 retrograde -4484 Dec 28 j 22:43 30°RS min. Earth dist. -4478 Aug 10 j 14:56 13°る39'29 4.02271 AU -4483 Feb 17 j 22:03 25°\$17'12 2°01'25 direct -4478 Oct 08 j 17:48 8°**る**35'17 opposition min. Earth dist. -4483 Feb 19 j 03:23 25°507'50 4.37096 AU evening set -4477 Feb 10 j 19:29 27°る51'25 direct -4483 Apr 21 j 13:54 20°5016'23 -4477 Feb 19 j 22:33 0°≈ -4483 Jul 18 j 03:18 0 $^{\circ}\Omega$ 1°≈02'05 -1°-23'-9 evening set -4483 Aug 26 j 06:42 8°**Ω**13'54 conjunction -4477 Feb 24 j 08:02 -4483 Sep 06 j 03:10 10° **Ω** 39'08 6.34106 AU -4477 Feb 24 j 08:01 1°23'21 max. Earth dist. minimum elong 1°≈02'05 -4477 Feb 26 j 03:55 max. Earth dist. 1°≈27'55 6.04154 AU -4483 Sep 07 j 20:26 11° Ω 02'14 1°24'18 -4477 Mar 09 j 23:30 conjunction morning rise 4°≈14'07 -4483 Sep 07 j 20:26 11°**Ω**02'14 minimum elong 1°24'28 -4477 Apr 28 j 06:51 15°**≈** morning rise -4483 Sep 20 j 08:06 $13^{\circ}\Omega$ 49'42 retrograde -4477 Jul 18 j 15:31 24°≈09'20 -4483 Sep 25 j 14:54 15°**Ω** min. Earth dist. -4477 Sep 15 j 01:21 19°**≈**13'45 4.07690 AU -4483 Dec 21 j 17:21 0°m opposition -4477 Sep 16 j 05:27 19°**≈**04'09 -2°-1'-9 retrograde -4482 Jan 20 j 16:49 1° Mp 22'27 -4477 Oct 21 j 09:50 15°R≈ -4482 Feb 19 j 21:50 30°RΩ -4477 Nov 13 j 12:47 14°≈05'37 direct -4482 Mar 22 j 16:59 26° **Ω**30'38 1°55'57 -4477 Dec 06 j 19:19 15°≈ opposition

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 38 Attention, astronomical year style is used: The year -4476 in astronomical counting style is the year 4477 BCE in historical counting style.

Attention, astronom	ical year style is used: The	he year -4476	in astronomical co	ounting style is the year	r 4477 BCE in historical of	counting style	
	-4476 Mar 04 j 17:43	0°)			-4471 Jun 27 j 04:55	0 $^{\circ}$ Ω	
evening set	-4476 Mar 18 j 18:10	3° 升 10′33		evening set	-4471 Aug 30 j 15:02		
					-4471 Sep 09 j 22:57		
conjunction	-4476 Apr 01 j 11:53		-1°-11'-58	max. Earth dist.	-4471 Sep 10 j 11:12	15° Ω 06'52	6.33550 AU
minimum elong	-4476 Apr 01 j 11:57	6° ₩ 19'58	1°12'05			_	
max. Earth dist.	-4476 Apr 03 j 04:41	6°) 43′24	6.12097 AU	conjunction	-4471 Sep 12 j 04:02		1°23'25
morning rise	-4476 Apr 15 j 06:30	9° ¥ 29'36		minimum elong	-4471 Sep 12 j 04:03		1°23'34
retrograde	-4476 Aug 20 j 20:27	28°) ₹33'44	4.17066.433	morning rise	-4471 Sep 24 j 15:24		
min. Earth dist.	-4476 Oct 18 j 08:31		4.17266 AU		-4471 Nov 21 j 15:56	0° m	
opposition	-4476 Oct 19 j 04:31	23°) 30'24	-1°-23'-21	retrograde	-4470 Jan 25 j 08:02	5° Mp 53'47	1953113
direct	-4476 Dec 17 j 10:16	18° ¥ 28'51 0° Ƴ		opposition	-4470 Mar 27 j 08:45		1°52'12
avanina aat	-4475 Mar 21 j 08:52	7° Υ 11'23		min. Earth dist.	-4470 Mar 28 j 13:02		4.29493 AU
evening set	-4475 Apr 23 j 17:10	/ 11123		direct	-4470 Apr 04 j 12:41	30°RN 26°N04'10	
conjunction	-4475 May 07 j 11:08	10016128	0°-36'-9	direct	-4470 May 28 j 11:40 -4470 Jul 19 j 19:45	0°M)	
minimum elong		10°Υ16'30	0°36'09	evening set	-4470 Sep 30 j 20:53	14° Mp 14'42	
max. Earth dist.	-4475 May 07 j 11:11	10° Υ 28'11	6.22587 AU	max. Earth dist.	-4470 Oct 12 j 01:03		6.24505 AU
morning rise	· ·		0.22307 110	max. Earth dist.	4470 Oct 12 j 01.03	10 mg 47 50	0.24303710
morning rise	-4475 Aug 22 j 23:57	0°8		conjunction	-4470 Oct 13 j 09:22	17° m 06'21	1°03'31
retrograde	-4475 Sep 22 j 06:08	1° 8 27'52		minimum elong	-4470 Oct 13 j 09:26		1°03'34
renograde	-4475 Oct 22 j 08:04	30°RY		morning rise	-4470 Oct 25 j 21:38		1 000.
opposition	-4475 Nov 20 j 16:42	26° Y 28'04	0°-20'-1		-4470 Dec 12 j 01:11	0∘ ⊽	
min. Earth dist.	-4475 Nov 20 j 10:20	26° Ƴ 30′12	4.27630 AU	retrograde	-4469 Feb 28 j 12:50	8° ≏ 21'41	
direct	-4474 Jan 20 j 05:19	21° Υ 24'41		opposition	-4469 Apr 30 j 17:43	3° ≏ 27'29	1°06'47
asc. node	-4474 Mar 16 j 07:39	25° Ƴ 45'23		min. Earth dist.	-4469 May 01 j 10:58	3° £ 21'59	4.19182 AU
	-4474 Apr 10 j 20:17	0°8			-4469 May 30 j 19:30	30°₽.₩	
evening set	-4474 May 28 j 02:42	9° 8 43'37		direct	-4469 Jun 30 j 16:49	28° M 32'36	
					-4469 Jul 31 j 08:36	0∘ ⊽	
conjunction	-4474 Jun 10 j 15:36	12° 8 42'38	0°10'07	evening set	-4469 Nov 02 j 03:19	17° ≏ 03'42	
minimum elong	-4474 Jun 10 j 15:36	12° 8 42'38	0°10'16				
behind sun begin	-4474 Jun 10 j 09:07	12° 8 39'04		conjunction	-4469 Nov 14 j 19:41	20° ₽ 01'29	0°23'01
behind sun end	-4474 Jun 10 j 22:04	12° 8 46'11		minimum elong	-4469 Nov 14 j 19:43	20° ≏ 01'30	0°22'57
max. Earth dist.	-4474 Jun 10 j 13:22		6.32116 AU	max. Earth dist.	-4469 Nov 14 j 05:44	19° ≏ 53'19	6.13896 AU
	-4474 Jun 21 j 00:30			morning rise	-4469 Nov 27 j 13:40		
morning rise	-4474 Jun 24 j 01:38				-4469 Dec 28 j 16:37	0°M₊	
	-4474 Sep 08 j 18:34			retrograde	-4468 Apr 04 j 13:33		
retrograde	-4474 Oct 23 j 12:49	3° Ⅱ 03'34		desc. node	-4468 May 18 j 09:02	9° ™ 30'17	
	-4474 Dec 07 j 15:58			opposition	-4468 Jun 04 j 12:36	7° ™ 21'12	
opposition	-4474 Dec 22 j 06:24			min. Earth dist.	-4468 Jun 04 j 14:01		4.09024 AU
min. Earth dist.	-4474 Dec 22 j 15:16		4.35605 AU	direct	-4468 Aug 03 j 03:43	2°M28'01	
direct	-4473 Feb 21 j 23:26				-4468 Nov 07 j 06:29		
. ,	-4473 May 05 j 08:12			evening set	-4468 Dec 05 j 02:14	21°IIL22'34	
evening set	-4473 Jun 29 j 22:46		6.37896 AU	:	4460 D 10:01:02	249 m 27106	09 261 40
max. Earth dist.	-4473 Jul 12 j 01:37	13°Д45'01	0.37890 AU	conjunction minimum elong	-4468 Dec 18 j 01:23 -4468 Dec 18 j 01:21		0°-26'-40 0°26'52
conjunction	-4473 Jul 13 j 02:33	120Π501/11	0°52'10	max. Earth dist.	-4468 Dec 18 j 12:18		6.05152 AU
minimum elong	-4473 Jul 13 j 02:39		0°52'22	morning rise	-4468 Dec 31 j 03:26		0.03132 AU
morning rise	-4473 Jul 26 j 03:06		0 32 22	morning risc	-4467 Jan 10 j 14:07	0° x ⁷	
morning rise	-4473 Oct 03 j 07:14	0°9		retrograde	-4467 May 11 j 14:36		
retrograde	-4473 Nov 23 j 10:45	3°952'55		min. Earth dist.	-4467 Jul 10 j 10:54		4.02602 AU
renograde	-4472 Jan 14 j 19:43			opposition	-4467 Jul 11 j 03:05		-1°-14'-50
opposition	-4472 Jan 22 j 14:50		1°38'34	direct	-4467 Sep 07 j 14:07	7° ₹ '41'42	1 1.00
min. Earth dist.	-4472 Jan 23 j 12:55		4.38948 AU	evening set	-4466 Jan 09 j 21:06		
direct	-4472 Mar 25 j 02:53			3	-4466 Jan 22 j 21:05	0°ප	
	-4472 May 31 j 10:26	0ಂತ			ý		
evening set	-4472 Jul 30 j 13:43	11° © 51'43		conjunction	-4466 Jan 23 j 03:37	0° る 03'53	-1°-7'-41
max. Earth dist.	-4472 Aug 10 j 19:49		6.38426 AU	minimum elong	-4466 Jan 23 j 03:34	0° ප 03'51	1°07'55
				max. Earth dist.	-4466 Jan 24 j 12:36	0° る 23'31	6.01545 AU
conjunction	-4472 Aug 12 j 08:35	14°9540'34	1°18'54	morning rise	-4466 Feb 05 j 13:39	3° ප 15'00	
minimum elong	-4472 Aug 12 j 08:33	14°5940'33	1°19'06	retrograde	-4466 Jun 17 j 15:20	23° る 32'22	
morning rise	-4472 Aug 25 j 00:19	17° 5 28'00		min. Earth dist.	-4466 Aug 15 j 11:13	18° පි 36'59	4.02359 AU
	-4472 Oct 28 j 11:19	$0^{\circ}\Omega$		opposition	-4466 Aug 16 j 14:16		-1°-59'-12
retrograde	-4472 Dec 23 j 17:57	4° Ω 35'56		direct	-4466 Oct 13 j 14:30	13° る 32'11	
	-4471 Feb 20 j 09:54				-4465 Feb 03 j 15:55	0° ≈	
opposition	-4471 Feb 22 j 10:46		2°02'45	evening set	-4465 Feb 15 j 19:57	2° ≈ 49′10	
min. Earth dist.	-4471 Feb 23 j 15:12		4.36751 AU				
direct	-4471 Apr 26 j 01:28	24°5544'04		conjunction	-4465 Mar 01 j 09:37	6°≈00'08	-1°-23'-23

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, Attention, astronomical year style is used: The year -4465 in astronomical counting style is the year 4466 BCE in historical counting style. minimum elong -4465 Mar 01 i 09:37 6°≈00'08 1°23'34 -4460 Aug 16 j 15:38 19°503'21 1°21'09 minimum elong -4460 Aug 29 j 06:37 21°550'32 -4465 Mar 03 i 07:05 max. Earth dist. 6°≈≈26'50 6 04563 AU morning rise -4465 Mar 15 j 01:42 -4460 Oct 07 j 08:22 morning rise 9°≈12'15 $0^{\circ}\Omega$ -4465 Apr 09 j 14:05 -4460 Dec 28 j 04:57 9° **Q**00'31 15°≈ retrograde -4465 Jul 23 j 11:38 4°Ω09'00 2°03'25 -4459 Feb 26 j 22:35 retrograde 29°≈03'37 opposition 3°**Ω**59'35 4.36135 AU opposition -4465 Sep 20 j 23:11 23°**≈**58'35 -1°-58'-13 min. Earth dist. -4459 Feb 28 j 04:08 min. Earth dist. -4465 Sep 19 j 20:00 24°≈07'53 4.08381 AU -4459 Apr 06 j 14:33 30°R∽ direct -4465 Nov 18 j 07:55 18°≈59'40 direct -4459 Apr 30 j 13:28 29°908'52 -4464 Feb 16 j 01:00 0°**∀** -4459 May 24 j 12:35 0 $^{\circ}\Omega$ evening set -4464 Mar 23 j 18:36 8°**)**€03'41 -4459 Aug 25 j 08:04 15°**Ω** evening set -4459 Sep 03 j 22:10 17° Ω 07'09 -4464 Apr 06 j 12:38 11°**)** 12'51 -1°-8'-11 -4459 Sep 14 j 19:15 19°**Ω**33'21 conjunction max. Earth dist. 6.32585 AU minimum elong max. Earth dist. -4464 Apr 08 j 02:39 11°**)** 34'40 6.13017 AU conjunction -4459 Sep 16 j 10:57 19°**Ω**55'40 1°22'05 morning rise -4464 Apr 20 j 07:36 14° **¥** 22'14 minimum elong -4459 Sep 16 j 10:59 19°**Ω**55'41 1°22'14 -4464 Jul 09 j 22:53 $0^{\circ}\Upsilon$ morning rise -4459 Sep 28 j 21:59 22°**Ω**43'31 retrograde -4464 Aug 25 j 09:46 3°**Y**19'58 -4459 Nov 01 j 19:43 -4464 Oct 10 j 21:23 30°R € retrograde -4458 Jan 29 j 22:01 10° m 25'14 opposition -4464 Oct 23 j 18:24 28° **★** 17'00 -1°-15'-33 opposition -4458 Apr 01 j 00:41 5° m 33'03 1°47'52 min. Earth dist. -4464 Oct 22 j 23:20 28° **★**23'29 4.18324 AU min. Earth dist. -4458 Apr 02 j 03:31 5° m) 24'32 4.28233 AU direct -4464 Dec 22 j 03:34 23° ¥ 15'06 direct -4458 Jun 01 j 23:42 0° m 35'46 -4463 Mar 01 i 04:54 $0^{\circ}\Upsilon$ evening set -4458 Oct 05 i 06:14 18° m 48'40 evening set -4463 Apr 28 j 14:20 11°Υ55'32 max. Earth dist. -4458 Oct 16 j 11:46 21° m 23'07 6.23052 AU conjunction -4463 May 12 j 08:05 15°**Υ**'00'02 0°-29'-57 conjunction -4458 Oct 17 j 18:53 21° mp 41'01 0°58'56 -4463 May 12 j 08:08 15° Υ 00'03 0°29'56 -4458 Oct 17 j 18:57 21° Mp 41'03 0°58'58 minimum elong minimum elong -4463 May 13 j 03:01 15°**Υ**10'38 -4458 Oct 30 j 07:47 24° m/33'38 max. Earth dist. 6.23734 AU morning rise -4463 May 26 j 00:25 18°**Υ**03'38 -4458 Nov 23 j 17:23 morning rise 0∘∙ -4463 Jul 24 j 01:09 -4457 Mar 05 j 11:13 13°**♀**04'49 0° 8 retrograde -4463 Sep 26 j 17:14 6°**8**04'18 -4457 May 05 j 14:47 8°**♀**10'09 retrograde opposition 0°58'08 1°805'01 0°-10'-23 -4463 Nov 25 j 03:37 -4457 May 06 j 06:55 min. Earth dist. 8°**£**04'59 4.17613 AU opposition -4457 Jul 05 j 10:15 min. Earth dist. -4463 Nov 24 j 23:14 1°**8**06'29 4.28750 AU direct 3°**£**15'31 -4463 Dec 03 j 07:26 30°RΥ -4457 Nov 06 j 17:37 21°**♀**50'11 evening set -4462 Jan 24 j 20:44 26°**Y**01'30 direct -4462 Jan 24 j 00:30 26°**Y**01'34 -4457 Nov 19 j 10:56 24°**2**49'01 0°16'18 asc. node conjunction -4462 Mar 18 j 11:22 0°8 -4457 Nov 19 j 10:57 24°**£**49'02 minimum elong 0°16'14 -4457 Nov 19 j 10:24 24°**£**48'42 evening set -4462 Jun 01 j 19:04 14°**8**17'51 behind sun begin -4462 Jun 04 j 23:55 15°**8** behind sun end -4457 Nov 19 j 11:30 24°**£**49'21 max. Earth dist. -4457 Nov 19 j 00:08 24°**♀**42'42 6.12368 AU conjunction -4462 Jun 15 j 06:50 17°**8**16'01 0°16'34 morning rise -4457 Dec 02 j 05:56 27°**△**48'59 -4462 Jun 15 j 06:48 17°**8**16'00 0°16'43 -4457 Dec 11 j 16:09 0°M minimum elong max. Earth dist. -4462 Jun 15 j 01:05 17°**8**12'51 6.33105 AU -4456 Mar 01 j 23:35 15° M -4462 Jun 28 j 15:45 20°812'38 desc. node -4456 Mar 28 j 19:39 17° ML02'14 morning rise -4462 Aug 15 j 13:14 0°**П** -4456 Apr 09 j 15:40 17° ML15'25 retrograde -4462 Oct 27 j 20:21 7°**Ⅱ**31'43 -4456 May 18 j 11:50 15°RM retrograde opposition -4462 Dec 26 i 15:44 2°Д36'13 0°55'15 opposition -4456 Jun 09 i 13:47 12° ML17'07 0°-13'-45 min. Earth dist. -4462 Dec 27 i 02:15 2° **II** 32'45 4.36393 AU min. Earth dist. -4456 Jun 09 j 12:26 12°ML17'33 4.07684 AU -4461 Jan 16 j 13:18 30°R℃ direct -4456 Aug 07 i 23:33 7°M24'04 direct -4461 Feb 26 j 12:21 27°\(\mathbf{2}32'33 \) -4456 Oct 18 j 22:08 15° M -4461 Apr 08 j 20:08 0°**Ⅱ** -4456 Dec 09 j 23:26 26°M22'25 evening set -4461 Jul 04 j 10:13 15°**Ⅲ**32'13 evening set max. Earth dist. -4461 Jul 16 j 11:05 18°**Д**10'17 6.38392 AU -4456 Dec 22 j 23:33 29°M27'51 0°-33'-21 conjunction -4456 Dec 22 j 23:30 29°M27'49 minimum elong 0°33'32 -4461 Jul 17 j 12:45 18°**Ⅲ**24'22 0°57'01 conjunction max. Earth dist. -4456 Dec 23 j 13:00 29°M 35'52 6.04110 AU minimum elong -4461 Jul 17 j 12:41 18°**Ⅲ**24'20 0°57'15 -4456 Dec 25 j 05:33 0°×7 -4461 Jul 30 j 11:47 21°**П**14'48 morning rise morning rise -4455 Jan 05 j 02:50 2°**х** 35′02 -4461 Sep 11 j 00:44 retrograde -4455 May 16 j 19:32 22°**尽** 43'28 0.ಎ -4461 Nov 27 j 17:36 -4455 Jul 15 j 11:52 17° ₹ 47'26 4.01987 AU retrograde 8°9516'27 min. Earth dist. -4460 Jan 27 j 00:16 -4455 Jul 16 j 06:11 17°**х** 41'19 -1°-23'-17 opposition 3°523'49 1°43'48 opposition -4455 Sep 12 j 14:47 12° ₹ 47'48 min. Earth dist. -4460 Jan 27 j 23:17 3°516'24 4.39110 AU direct 0°ಕ -4460 Feb 25 j 01:37 30°RⅡ -4454 Jan 06 j 06:51 direct -4460 Mar 29 j 13:50 28°**Ⅲ**21'28 evening set -4454 Jan 15 j 00:03 2°る03'01 -4460 May 02 j 06:27 0ಂಣ evening set -4460 Aug 03 j 22:01 16°514'55 conjunction -4454 Jan 28 j 07:48 5°る12'53 -1°-11'-41 max. Earth dist. -4460 Aug 15 j 00:23 18°541'40 6.38195 AU minimum elong -4454 Jan 28 j 07:45 5°**る**12'51 1°11'55 -4454 Jan 29 j 21:06 5°**る**35'04 6.01425 AU max. Earth dist.

-4454 Feb 10 j 18:42

morning rise

8°**る**24'26

-4460 Aug 16 j 15:40 19°503'22 1°20'57

conjunction

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, Attention, astronomical year style is used: The year -4454 in astronomical counting style is the year 4455 BCE in historical counting style. -4454 Jun 22 j 19:42 28°₹41'09 evening set -4448 Aug 08 j 02:14 20°529'50 retrograde max. Earth dist. -4454 Aug 21 j 15:39 23°る36'26 -2°-1'-56 -4448 Aug 19 j 03:24 22°556'09 6.37616 AU opposition min. Earth dist. -4454 Aug 20 j 12:02 23°る45'48 4.02799 AU -4454 Oct 18 j 15:38 18°₹40'30 direct conjunction -4448 Aug 20 j 19:06 23°518'08 1°22'29 -4453 Jan 16 j 15:42 -4448 Aug 20 j 19:04 23°518'07 0°≈ minimum elong 1°22'41 -4453 Feb 21 j 01:19 -4448 Sep 02 j 09:07 26°505'11 evening set 7°≈56'44 morning rise -4448 Sep 20 j 10:42 $0^{\circ}\Omega$ -4447 Jan 01 j 12:47 conjunction -4453 Mar 06 j 15:38 11°≈07'35 -1°-23'-3 retrograde 13°**Ω**18'49 minimum elong -4453 Mar 06 j 15:39 11°≈07'36 1°23'14 opposition -4447 Mar 03 j 07:46 8°**£**27′23 2°03'25 max. Earth dist. -4453 Mar 08 j 12:59 11°≈34'09 6.05524 AU min. Earth dist. -4447 Mar 04 j 13:58 8°**Ω**17'47 4.35044 AU morning rise -4453 Mar 20 j 08:31 14°≈19'34 direct -4447 May 04 j 20:47 3°**Ω**27'37 -4453 Mar 23 j 06:18 15°≈ -4447 Aug 09 j 02:39 15°**Ω** -4453 Jun 06 j 13:13 0°**)**€ evening set -4447 Sep $08 \text{ j } 03:17 \quad 21^{\circ} \Omega 28'33$ retrograde -4453 Jul 28 j 07:17 4°**)**(04'12 max. Earth dist. -4447 Sep 18 j 22:30 23°**Q**54'18 6.31054 AU -4453 Sep 18 j 08:42 30°R≈ opposition -4453 Sep 25 j 19:18 28°≈59'18 -1°-54'-24 conjunction -4447 Sep 20 j 15:41 24°**Ω**17'32 1°20'19 min. Earth dist. -4453 Sep 24 j 15:41 29°**≈**08'45 4.09786 AU minimum elong -4447 Sep 20 j 15:43 24°**Ω**17'33 1°20'26 direct -4453 Nov 23 j 06:10 23°≈59'57 morning rise -4447 Oct 03 j 02:53 27° **Ω**06'02 -4452 Jan 25 j 18:57 0°**₩** -4447 Oct 16 j 04:20 0° m evening set -4452 Mar 28 j 20:49 13° + 00'13 retrograde -4446 Feb 03 j 14:12 14° mp 55'15 opposition -4446 Apr 05 j 15:45 10° m 02'49 1°42'58 conjunction -4452 Apr 11 i 15:09 16° ¥ 08'44 -1°-3'-55 min. Earth dist. -4446 Apr 06 i 18:16 9° m 54'23 4.26347 AU minimum elong -4452 Apr 11 j 15:13 16° ¥ 08'46 1°03'59 direct -4446 Jun 06 i 11:13 5° m 05'52 max. Earth dist. -4452 Apr 13 i 04:06 16° ¥29'51 6.14771 AU evening set -4446 Oct 09 i 15:28 23° m 23'29 morning rise -4452 Apr 25 j 09:57 19°**米** 17'16 max. Earth dist. -4446 Oct 21 j 00:29 26° m 00'34 6.20993 AU -4452 Jun 15 j 03:46 $0^{\circ}\Upsilon$ -4452 Aug 30 j 00:32 8°Y05'28 -4446 Oct 22 j 04:48 26° Mp 16'55 retrograde conjunction 0°54'01 -4452 Oct 28 j 08:30 3°**Y**02'57 -1°-7'-18 -4446 Oct 22 j 04:51 26° m 16'57 minimum elong 0°54'03 opposition -4452 Oct 27 j 15:41 3°**Y**08'40 4.20227 AU -4446 Nov 03 j 18:19 29° m 10'43 min. Earth dist. morning rise -4452 Nov 21 j 14:30 30°R € -4446 Nov 07 j 08:25 0°**♀** -4452 Dec 26 j 23:16 28° **米** 00'47 -4445 Mar 10 j 10:01 17°**£**51'36 direct retrograde -4451 Jan 31 j 17:39 -4445 May 10 j 12:49 12°**£**56'32 $0^{\circ}\Upsilon$ 0°49'04 opposition -4451 May 03 j 10:00 16°**Υ**35'58 -4445 May 11 j 02:34 12°**£**52'07 evening set min. Earth dist. 4.15536 AU -4445 Jul 10 j 02:16 8°**♀**02'15 direct -4451 May 17 j 03:08 19°**Υ**39'25 0°-23'-41 -4445 Nov 11 j 10:02 26°**£**42'21 conjunction evening set -4451 May 17 j 03:10 19°**Υ**39'26 0°23'38 minimum elong -4451 May 17 j 19:05 19°**Υ**48'19 6.25632 AU -4445 Nov 24 j 04:10 29°**£**42'25 0°09'25 max. Earth dist. conjunction morning rise -4451 May 30 j 18:39 22°**Υ**41'52 minimum elong -4445 Nov 24 j 04:10 29°**Ω**42'25 0°09'19 -4451 Jul 04 j 01:15 0°**8** behind sun begin -4445 Nov 23 j 21:23 29°**△**38'26 retrograde -4451 Sep 30 j 23:24 10°**8**34'03 behind sun end -4445 Nov 24 j 10:58 29°**△**46'24 opposition -4451 Nov 29 j 12:14 5°**8**35'17 0°00'-58 max. Earth dist. -4445 Nov 23 j 20:04 29°**♀**37'39 6.10462 AU min. Earth dist. -4451 Nov 29 j 09:23 5°**8**36'14 4.30481 AU -4445 Nov 25 j 10:01 0°M asc. node -4451 Dec 05 j 05:05 4°**8**49'47 -4445 Dec 07 j 00:29 2°M43'44 morning rise -4450 Jan 29 j 09:33 0°**8**31'38 -4444 Feb 02 j 08:41 15°M direct -4450 May 19 j 23:57 15°**8** desc. node -4444 Feb 06 j 19:58 15°M47'39 -4444 Apr 14 j 20:40 22° ML 19'17 evening set -4450 Jun 06 j 07:44 18°**8**43'35 retrograde opposition -4444 Jun 14 j 17:30 17° M 20'21 0°-24'-22 conjunction -4450 Jun 19 j 18:16 21°840'38 0°22'41 min. Earth dist. -4444 Jun 14 j 12:56 17° ML21'51 4.06122 AU minimum elong -4450 Jun 19 j 18:14 21°840'37 0°22'50 -4444 Jul 03 i 09:34 15°RM max. Earth dist. -4450 Jun 19 j 09:14 21°**8**35'40 6.34534 AU -4444 Aug 12 i 22:55 12°M27'21 direct -4450 Jul 03 j 01:48 24°**8**36'06 -4444 Sep 21 j 18:57 15°M morning rise -4450 Jul 28 j 10:07 $\Pi^{\circ}0$ -4444 Dec 08 j 14:54 0°×7 -4450 Nov 01 j 00:58 11°**Д**50'03 -4444 Dec 14 j 23:40 retrograde evening set 1° x730'06 opposition -4450 Dec 30 j 21:23 6°**Д**55'05 1°03'06 min. Earth dist. -4450 Dec 31 j 10:45 6°**Ц**50'43 4.37413 AU conjunction -4444 Dec 28 j 01:03 4°**∡**³36'31 0°-39'-53 direct -4449 Mar 02 j 22:08 1°**Ⅲ**51'31 minimum elong -4444 Dec 28 j 01:00 4°**х** 36′29 0°40'05 evening set -4449 Jul 08 j 17:21 19°**Ⅱ**48'45 max. Earth dist. -4444 Dec 28 j 20:14 4°**∡**¹47'57 6.03043 AU -4443 Jan 10 j 05:24 7°**∡¹**44'39 morning rise -4449 Jul 21 j 18:32 22°**Ⅱ**40'08 1°01'22 -4443 May 22 j 04:04 27°**尽** 57'24 conjunction retrograde -4449 Jul 21 j 18:29 22°**Ⅱ**40'06 1°01'35 -4443 Jul 21 j 11:31 22° ₹ 54'44 -1°-31'-13 minimum elong opposition 6.38892 AU -4443 Jul 20 j 15:14 23°**尽**01'31 max. Earth dist. -4449 Jul 20 j 12:56 22°**Ⅲ**23'54 min. Earth dist. 4.01552 AU morning rise -4449 Aug 03 j 16:23 25°**Ⅲ**29'52 direct -4443 Sep 17 j 17:51 18°**∡**′00′58 -4449 Aug 24 j 17:51 0 \circ 0 -4443 Dec 19 j 08:15 0°ಕ retrograde -4449 Dec 01 j 21:59 12°530'46 evening set -4442 Jan 20 j 06:00 7°**る**17'33 opposition -4448 Jan 31 j 06:09 7°**©**38'24 1°48'16 min. Earth dist. -4448 Feb 01 j 06:58 7°930'25 4.39079 AU -4442 Feb 02 j 14:35 10°る27'42 -1°-15'-10 conjunction -4448 Apr 02 j 20:39 2°536'13 -4442 Feb 02 j 14:33 10°る27'40 1°15'23 direct minimum elong

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, Attention, astronomical year style is used: The year -4442 in astronomical counting style is the year 4443 BCE in historical counting style. -4442 Feb 04 i 05:36 10°る50'52 6.01610 AU retrograde -4437 Dec 06 i 06:59 16°553'14 max. Earth dist. -4442 Feb 16 j 02:38 13°る39'34 -4436 Feb 04 j 15:57 12°501'10 1°52'22 morning rise opposition -4442 May 08 j 04:43 min. Earth dist. -4436 Feb 05 j 18:40 11°552'36 4.38774 AU 0°≈≈ -4442 Jun 27 j 21:31 3°≈53'28 direct -4436 Apr 07 j 07:34 retrograde 6°≌59'18 -4436 Aug 12 j 10:23 24°553'44 -4442 Aug 17 j 21:26 30°R♂ evening set -4442 Aug 26 j 17:37 -2°-3'-42 max. Earth dist. opposition 28°**る**48'27 -4436 Aug 23 j 08:26 27°518'42 6.36867 AU min. Earth dist. -4442 Aug 25 j 12:14 28°**る**58'27 4.03582 AU -4442 Oct 23 j 17:36 23°**궁**51'58 1°23'39 direct conjunction -4436 Aug 25 j 02:19 27°5541'58 minimum elong -4436 Aug 25 j 02:18 27°541'57 -4442 Dec 26 j 04:34 0°≈ 1°23'51 -4436 Sep 04 j 11:13 evening set -4441 Feb 26 j 07:32 13°≈06'05 $0^{\circ}\Omega$ -4441 Mar 06 j 11:18 15°≈ morning rise -4436 Sep 06 j 15:46 0°**Ω**29'02 -4436 Nov 23 j 22:12 15°**Ω** -4435 Jan 06 j 01:47 17°**Ω**46'50 conjunction -4441 Mar 11 j 22:40 16°≈16'41 -1°-22'-4 retrograde minimum elong -4441 Mar 11 j 22:42 16°≈16'42 1°22'15 -4435 Feb 18 j 23:36 15°RΩ max. Earth dist. -4441 Mar 13 j 20:30 16°**≈**43′26 6.06797 AU opposition -4435 Mar 07 j 21:25 12° **Ω**55'24 2°02'44 morning rise -4441 Mar 25 j 15:55 19°≈28'13 min. Earth dist. -4435 Mar 09 j 03:28 12°**Ω**45'50 4.33920 AU -4441 May 13 j 05:35 0°**)**€ direct -4435 May 09 j 08:07 7°**Ω**55'59 retrograde -4441 Aug 02 j 04:52 9°**)**€04'48 -4435 Jul 20 j 23:42 15°**Ω** opposition -4441 Sep 30 j 15:28 4°**)**€00'03 -1°-49'-42 evening set -4435 Sep 12 j 12:11 $25^{\circ}\Omega 59'28$ min. Earth dist. -4441 Sep 29 j 13:39 4°**₭**08'53 4.11369 AU max. Earth dist. -4435 Sep 23 j 09:44 $28^{\circ}\Omega 26'59$ 6.29658 AU -4441 Nov 03 j 21:26 30°R≈ direct -4441 Nov 28 i 07:04 29°≈00'12 conjunction -4435 Sep 25 i 00:34 28° Ω48'58 1°18'00 -4441 Dec 22 j 20:58 0°**)**€ minimum elong $-4435 \text{ Sep } 25 \text{ i } 00:37 \quad 28^{\circ} \Omega 49'00$ 1°18'07 evening set -4440 Apr 02 j 22:59 17° **¥** 56'09 -4435 Sep 30 i 05:59 0° m morning rise -4435 Oct 07 j 11:40 1° m 38'03 -4440 Apr 16 j 17:27 21° ¥03'57 0°-59'-11 -4434 Feb 08 i 09:14 19° mp 34'17 conjunction retrograde -4440 Apr 16 j 17:31 21° **H** 04'00 0°59'15 -4434 Apr 10 j 11:05 14° mp 41'40 1°37'13 minimum elong opposition -4440 Apr 18 j 04:30 21° **€** 23'54 min. Earth dist. -4434 Apr 11 j 12:23 14° mp 33'37 max. Earth dist. 6.16522 AU 4.24776 AU -4440 Apr 30 j 12:04 24°**米** 11'38 -4434 Jun 11 j 02:32 9°**m** 45'14 morning rise direct -4440 May 26 j 21:52 0°**Υ** -4434 Oct 14 j 04:04 28° m 06'13 evening set 0∘**⊽** -4440 Sep 03 j 13:01 12° Υ 50'31 -4434 Oct 22 j 09:15 retrograde -4440 Nov 01 j 22:18 7°**Υ**48'28 0°-58'-36 opposition -4440 Nov 01 j 06:32 7°**Υ**53'48 -4434 Oct 26 j 17:44 1°**2**00'32 0°48'36 min. Earth dist. 4.21976 AU conjunction -4440 Dec 31 j 16:45 2°**Υ**45'59 -4434 Oct 26 j 17:47 1°**2**00'33 0°48'37 direct minimum elong -4439 May 08 j 06:14 21°**Υ**16'53 -4434 Oct 25 j 14:59 0°**£**45′01 evening set max. Earth dist. 6.19401 AU -4434 Nov 08 j 08:10 3°**₽**55'23 morning rise -4439 May 21 j 22:37 24°**Y**19'21 0°-17'-13 -4433 Mar 15 j 10:51 22°**£**44'23 conjunction retrograde minimum elong -4439 May 21 j 22:39 24° Υ 19'22 0°17'10 opposition -4433 May 15 j 13:28 17°**£**48'50 0°39'25 max. Earth dist. -4439 May 22 j 10:05 24°**Υ**25'44 6.27253 AU min. Earth dist. -4433 May 16 j 00:11 17°**△**45'23 4.14054 AU -4439 Jun 04 j 13:16 27°**Υ**20'45 direct -4433 Jul 14 j 22:21 12°**♀**54'53 morning rise -4439 Jun 16 j 16:19 0°**8** -4433 Nov 09 j 03:40 0°M -4439 Sep 27 j 18:48 15°8 -4433 Nov 16 j 04:09 1°M38'17 evening set -4439 Oct 05 j 09:19 15°**8**05'42 retrograde -4439 Oct 12 j 22:46 15°R8 -4433 Nov 28 j 23:19 4°M39'17 0°02'23 conjunction asc. node -4439 Oct 15 j 10:28 14°**8**55'38 -4433 Nov 28 j 23:20 4°**M**₊39'17 0°02'17 minimum elong -4439 Dec 03 j 21:59 10°807'31 0°08'32 -4433 Nov 28 j 15:16 opposition behind sun begin 4°M34'33 -4439 Dec 03 j 22:28 10°**8**07'22 min. Earth dist. 4.31844 AU behind sun end -4433 Nov 29 i 07:24 4°M44'02 -4438 Feb 03 i 00:37 direct 5°**8**03'47 max. Earth dist. -4433 Nov 28 i 20:41 4°M37'46 6.09256 AU -4438 May 02 i 08:43 15°**8** morning rise -4433 Dec 11 j 20:34 7°**IL**41'36 -4438 Jun 10 j 21:54 23°812'41 desc. node -4433 Dec 17 j 12:19 9°M00'54 evening set -4432 Jan 13 j 03:29 15°M -4438 Jun 24 j 07:19 26°**8**08'51 0°28'48 retrograde -4432 Apr 20 j 02:31 27° M23'18 conjunction -4438 Jun 24 j 07:17 26°**8**08'50 0°28'58 -4432 Jun 19 j 21:03 22°M23'53 0°-34'-49 minimum elong opposition max. Earth dist. -4438 Jun 23 j 19:09 26°**8**02'10 6.35529 AU min. Earth dist. -4432 Jun 19 j 14:18 22°M26'06 4.05325 AU morning rise -4438 Jul 07 j 13:29 29°**8**03'22 direct -4432 Aug 17 j 23:07 17° M 30'58 -4438 Jul 11 j 21:32 Π $^{\circ}0$ -4432 Nov 21 j 07:17 0°**∡**¹ retrograde -4438 Nov 05 j 07:06 16°**Ⅱ**13'48 evening set -4432 Dec 19 j 23:32 6°**х¹**35'32 -4437 Jan 04 j 05:41 11°**II**19'16 1°10'49 opposition min. Earth dist. -4437 Jan 04 j 20:24 11°**I**I14'28 4.38008 AU -4431 Jan 02 j 01:43 9°**х** 42'30 0°-46'-3 conjunction -4437 Mar 07 j 08:12 6°**Ⅱ**15'49 -4431 Jan 02 j 01:39 9°**∡**¹42'28 direct minimum elong 0°46'16 -4437 Jul 13 j 03:17 24°**Ⅲ**11'57 -4431 Jan 02 j 23:19 9°**х** 55′22 evening set max. Earth dist. 6.02703 AU max. Earth dist. -4437 Jul 24 j 19:28 26°**Ⅲ**45'19 6.39031 AU morning rise -4431 Jan 15 j 07:19 12° ₹ 51'16 -4431 Apr 12 j 03:40 0°ಕ conjunction -4437 Jul 26 j 03:09 27°**Ⅲ**02'43 1°05'32 retrograde -4431 May 27 j 06:46 3°**る**05'26 minimum elong -4437 Jul 26 j 03:05 27°**Ⅲ**02'41 1°05'45 -4431 Jul 11 j 13:20 30°R ✓ -4437 Aug 07 j 23:43 29°**Д**51'53 -4431 Jul 26 j 13:58 28° ₹ 02'18 -1°-38'-14 morning rise opposition

min. Earth dist.

-4431 Jul 25 j 14:53 28° ₹ 10'02 4.01733 AU

-4437 Aug 08 j 14:36

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 42 Attention, astronomical year style is used: The year -4431 in astronomical counting style is the year 4432 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	ne year -4431	in astronomical cou	nting style is the year	4432 BCE in historical of	counting style.	
direct	-4431 Sep 22 j 17:38	-			-4425 Jul 23 j 22:16	0.ಎ	
	-4431 Nov 28 j 23:31	8°0		max. Earth dist.	-4425 Jul 29 j 02:27	1° 5 08'13	6.38805 AU
evening set	-4430 Jan 25 j 08:45	12° る 24'19			-		
				conjunction	-4425 Jul 30 j 11:43	1° 5 26'31	1°09'17
conjunction	-4430 Feb 07 j 18:21	15° る 34'35	-1°-17'-57	minimum elong	-4425 Jul 30 j 11:40	1° 5 26'29	1°09'29
minimum elong	-			morning rise	-4425 Aug 12 j 07:06	4°9515'17	
max. Earth dist.	-4430 Feb 09 j 11:52	15° る 59'12	6.02268 AU	retrograde	-4425 Dec 10 j 15:44	21°9518'14	
morning rise	-4430 Feb 21 j 07:03	18° る 46'25		opposition	-4424 Feb 09 j 02:44		1°55'48
	-4430 Apr 13 j 13:29	0° ≈		min. Earth dist.	-4424 Feb 10 j 05:21		4.38212 AU
retrograde	-4430 Jul 02 j 21:20	8°≈56'05		direct	-4424 Apr 11 j 17:16		
min. Earth dist.	-4430 Aug 30 j 11:03	4°≈00'40	4.04640 AU	evening set	-4424 Aug 16 j 18:57		
opposition	-4430 Aug 31 j 15:37	3°≈50'56	-2°-4'-27	C	-4424 Aug 19 j 18:39	$0^{\circ}\Omega$	
**	-4430 Oct 03 j 06:19	30°Rる		max. Earth dist.	-4424 Aug 27 j 17:03		6.36014 AU
direct	-4430 Oct 28 j 17:49	28° ප 54'01					
	-4430 Nov 23 j 07:21	0° ≈		conjunction	-4424 Aug 29 j 10:06	2° Ω 08'37	1°24'18
	-4429 Feb 17 j 21:55	15° ≈		minimum elong	-4424 Aug 29 j 10:06	2° Ω 08'36	1°24'29
evening set	-4429 Mar 03 j 09:35	18° ≈ 05'22		morning rise	-4424 Sep 10 j 22:53	4° Ω 55'46	
C	J			C	-4424 Oct 29 j 23:25		
conjunction	-4429 Mar 17 j 01:22	21° ≈ 15'38	-1°-20'-31	retrograde	-4423 Jan 10 j 16:23		
minimum elong	-4429 Mar 17 j 01:24			opposition	-4423 Mar 12 j 12:38		2°01'16
max. Earth dist.	-4429 Mar 18 j 22:47			min. Earth dist.	-4423 Mar 13 j 18:51		4.32825 AU
morning rise	-4429 Mar 30 j 19:04				-4423 Apr 01 j 14:26		
3	-4429 Apr 24 j 11:25	0°) €		direct	-4423 May 13 j 22:18		
retrograde	-4429 Aug 06 j 20:48				-4423 Jun 24 j 19:26		
min. Earth dist.	-4429 Oct 04 j 05:52	8°) 59'31	4.12868 AU		-4423 Sep 14 j 11:26	0° mp	
opposition	-4429 Oct 05 j 07:10			evening set	-4423 Sep 16 j 21:45	0° mp 32'46	
direct	-4429 Dec 03 j 01:12	3° ¥ 50'37	1 20	max. Earth dist.	-4423 Sep 27 j 19:36	-	6.28408 AU
evening set	-4428 Apr 07 j 21:10			man. Darun dibu	25 5 c p 27 j 15.50	2 .y 0007	0.20.00110
evening sec		22 /(.20)		conjunction	-4423 Sep 29 j 09:57	3° m 22'43	1°15'12
conjunction	-4428 Apr 21 j 15:36	25°¥ 50'09	0°-54'-13	minimum elong	-4423 Sep 29 j 09:59	3° m) 22'45	1°15'17
minimum elong	-4428 Apr 21 j 15:40			morning rise	-4423 Oct 11 j 21:18	6° Mp 12'24	1 13 17
max. Earth dist.	-4428 Apr 22 j 22:15			retrograde	-4422 Feb 13 j 03:40	24° Mp 14'54	
morning rise	-4428 May 05 j 10:04		0.10032710	opposition	-		1°30'47
morning rise	-4428 May 10 j 02:17	0°Υ		min. Earth dist.	-4422 Apr 16 j 05:48	19° m 14'35	4.23442 AU
retrograde	-4428 Sep 08 j 00:31			direct	-4422 Jun 15 j 18:23	14° m) 25'47	4.23442 110
opposition	-4428 Nov 06 j 09:11	12° Υ 26'31	0°-49'-51	direct	-4422 Oct 06 j 08:02	0° ட	
min. Earth dist.	-4428 Nov 05 j 20:34			evening set	-4422 Oct 18 j 16:39	ა _ 2° ჲ 49'01	
direct	-4427 Jan 05 j 08:46	7° Υ 23'45	1.23377 110	max. Earth dist.	-4422 Oct 30 j 08:32		6.18109 AU
evening set	-4427 May 12 j 23:05			max. Earth dist.	4422 OCT 30 J 00.32	3 -3104	0.10107710
evening sec	1127 111ay 12 J 25.05	25 (515)		conjunction	-4422 Oct 31 j 06:59	5° ≏ 44'07	0°42'52
conjunction	-4427 May 26 j 14:58	28° Ƴ 53'24	0°-10'-50	minimum elong	-4422 Oct 31 j 07:02	5° ≏ 44'08	0°42'51
minimum elong	-4427 May 26 j 14:59	28°Υ53'25	0°10'46	morning rise	-4422 Nov 12 j 21:59	8° £ 39'48	0 1231
behind sun begin	-4427 May 26 j 08:44	28° Υ 49'57	0 10 40	retrograde	-4421 Mar 20 j 11:46	27° £ 35'33	
behind sun end	-4427 May 26 j 21:15	28° Υ 56'52		opposition	-4421 May 20 j 13:29	22° ⊆ 39'31	0°29'30
max. Earth dist.	-4427 May 26 j 23:56		6.28436 AU	min. Earth dist.	-4421 May 20 j 22:34	22° Ω 36'35	4.12877 AU
max. Darm dist.	-4427 May 31 j 14:51	0°8	0.20 130 710	direct	-4421 Jul 19 j 19:01		1.12077110
morning rise	-4427 Jun 09 j 04:36	1° 8 53'55		uncet	-4421 Oct 23 j 05:25	0°M	
morning rise	-4427 Aug 15 j 07:46	15° 8		desc. node	-4421 Oct 27 j 12:06	0°M56'11	
asc. node	-4427 Aug 26 j 15:17	16° 8 34'49		evening set	-4421 Nov 20 j 21:32	6°M31'24	
retrograde	-4427 Oct 09 j 15:53	19° 8 33'32					
retrograde	-4427 Dec 05 j 05:27	15°R と		conjunction	-4421 Dec 03 j 17:27	9°M33'10	0°-4'-44
opposition	-4427 Dec 08 j 06:06	14° 8 35'54	0°17'47	minimum elong	-4421 Dec 03 j 17:27	9°M33'10	0°04'52
min. Earth dist.	-4427 Dec 08 j 07:56	14° 8 35'18	4.32732 AU	behind sun begin	-4421 Dec 03 j 09:34	9°M28'31	0 0.02
direct	-4426 Feb 07 j 11:01	9° 8 32'09	52,52110	behind sun end	-4421 Dec 04 j 01:20	9° M 37'48	
unect	-4426 Apr 11 j 12:45	_		max. Earth dist.	-4421 Dec 03 j 16:57	9°M32'53	6.08286 AU
evening set	-4426 Jun 15 j 10:37	27° 8 39'34		morning rise	-4421 Dec 16 j 15:56	12°M36'25	0.00200710
evening sec	-4426 Jun 26 j 03:02	0°Ⅱ		morning rise	-4421 Dec 26 j 22:16	15°M	
	20 tun 20 j 05.02	~ —			-4420 Mar 16 j 11:53	13 IIC 0° ⊀7	
conjunction	-4426 Jun 28 j 18:41	0° Ⅱ 34'59	0°34'39	retrograde	-4420 Mar 10 j 11:33	2° × ⁷ 23'21	
minimum elong	-4426 Jun 28 j 18:39	0° Д 34'58	0°34'50	- 211 0 51 1110	-4420 Jun 04 j 00:44	30°RM	
max. Earth dist.	-4426 Jun 28 j 02:21	0°П26'00	6.36059 AU	opposition	-4420 Jun 24 j 22:50	27°M23'21	0°-44'-55
morning rise	-4426 Jul 11 j 23:42	3° Ⅱ 28'47	0.5005) AU	min. Earth dist.	-4420 Jun 24 j 12:48	27°M26'39	4.04661 AU
retrograde	-4426 Nov 09 j 15:23	3 П 2847 20° П 37'23		direct	-4420 Juli 24 j 12.48 -4420 Aug 22 j 20:26	22°M30'22	7.07001 AU
opposition	-4425 Jan 08 j 13:59	20 II 37 23 15° II 43'17	1°18'04	ancei	-4420 Nov 01 j 20:17	0° x ⁷	
min. Earth dist.	-4425 Jan 09 j 07:29	15° Д 37'36	4.38171 AU	evening set	-4420 Nov 01 j 20.17 -4420 Dec 24 j 22:06		
direct	-4425 Mar 11 j 19:37	10° Д 39'58		Troining sot	1120 200 24 3 22.00	> 5057	
evening set	-4425 Jul 17 j 12:57			conjunction	-4419 Jan 07 j 01:21	14° ₹ 44'07	0°-51'-50
J. J	1/ 1/2.3/	_0000)		2011,411011	0411 0/ J 01.21		5 51 50

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, Attention, astronomical year style is used: The year -4419 in astronomical counting style is the year 4420 BCE in historical counting style. -4419 Jan 07 i 01:18 14° ₹ 44'05 0°52'04 morning rise -4414 Jul 16 i 11:14 7°**Ⅱ**57'58 minimum elong -4419 Jan 08 j 02:51 14° ₹ 59'19 -4414 Nov 13 j 23:08 25°**Ⅲ**04'51 max Earth dist 6 02394 AU retrograde 17°**∡** 53'25 -4419 Jan 20 j 07:48 opposition -4413 Jan 13 j 00:07 20° **Ⅱ**11'11 1°25'02 morning rise -4419 Mar 16 j 21:27 -4413 Jan 13 j 17:59 20°**Д**05'23 4.38416 AU 0°ನ min. Earth dist. -4413 Mar 16 j 06:26 15°**Ц**08'10 -4419 Jun 01 j 09:41 retrograde 8°る08'55 direct -4419 Jul 31 j 14:38 -1°-44'-28 -4413 Jul 07 j 18:31 opposition 3°**る**05'23 0ംഉ 3°る13'15 4.01825 AU min. Earth dist. -4419 Jul 30 j 15:15 evening set -4413 Jul 21 j 23:54 3°903'53 -4419 Aug 25 j 13:30 30°R.**✓** max. Earth dist. -4413 Aug 02 j 10:13 5°934'26 6.38768 AU direct -4419 Sep 27 j 17:59 28°**₹**11'00 -4419 Oct 30 j 18:32 0°₹ conjunction -4413 Aug 03 j 21:16 5°953'43 1°12'44 evening set -4418 Jan 30 j 10:49 17°る27'14 minimum elong -4413 Aug 03 j 21:13 5°953'42 1°12'57 -4413 Aug 16 j 15:35 morning rise 8°9542'03 -4413 Dec 15 j 03:29 25°546'05 conjunction -4418 Feb 12 j 21:19 20°♂37'40 -1°-20'-11 retrograde minimum elong -4418 Feb 12 j 21:17 20°る37'39 1°20'24 opposition -4412 Feb 13 j 15:04 20°554'22 max. Earth dist. -4418 Feb 14 j 16:10 21°る03'00 6.02735 AU min. Earth dist. -4412 Feb 14 j 19:03 20°9545'25 4.37920 AU morning rise -4418 Feb 26 j 10:55 23°₹49'38 direct -4412 Apr 16 j 07:11 15°953'11 -4418 Mar 25 j 11:59 -4412 Aug 03 j 14:30 $0^{\circ}\Omega$ retrograde -4418 Jul 07 j 19:17 13°≈55'33 evening set -4412 Aug 21 j 03:57 3°**Ω**48'55 min. Earth dist. -4418 Sep 04 j 07:07 9°**≈**00'19 4.05454 AU max. Earth dist. -4412 Sep 01 j 01:46 6°**Ω**14'22 6.35486 AU opposition -4418 Sep 05 j 12:15 8°≈50'24 -2°-4'-20 direct -4418 Nov 02 j 14:49 3°≈53'01 conjunction -4412 Sep 02 j 18:27 6°**Ω**37'03 1°24'29 -4417 Jan 31 i 05:05 15°≈ minimum elong -4412 Sep 02 i 18:27 6°**Ω**37'03 1°24'39 evening set -4417 Mar 08 j 11:34 23°≈02'48 morning rise -4412 Sep 15 i 06:37 9°**Ω**24'10 -4412 Oct 11 i 05:17 15° Ω conjunction -4417 Mar 22 i 03:54 26°≈12'51 -1°-18'-24 retrograde -4411 Jan 15 j 04:44 $26^{\circ}\Omega$ 49'44 -4417 Mar 22 j 03:56 26°≈12'53 -4411 Mar 17 j 03:50 $21^{\circ}\Omega$ 58'05 minimum elong 1°18'32 opposition 1°59'05 -4417 Mar 23 j 22:40 26°≈37'39 min. Earth dist. -4411 Mar 18 j 08:24 $21^{\circ}\Omega 49'00$ max Earth dist 6.09218 AU 4.32105 AU -4417 Apr 04 j 22:05 29°≈23'38 direct -4411 May 18 j 10:48 $16^{\circ}\Omega 59'32$ morning rise -4417 Apr 07 j 13:30 0°**米** -4411 Aug 29 j 03:24 0° m 5° Mp 05′26 -4417 Aug 11 j 13:37 18°\ 45'29 -4411 Sep 21 j 06:44 retrograde evening set -4417 Oct 09 j 23:08 13° **★**41'18 -1°-38'-28 -4411 Oct 02 j 07:06 max. Earth dist. 7° m 35'21 opposition 6.27559 AU -4417 Oct 08 j 23:51 13°¥49'15 4.14066 AU min. Earth dist. -4411 Oct 03 j 18:52 -4417 Dec 07 j 21:13 8° **★** 40'35 conjunction 7° mp 55'42 1°11'57 direct -4416 Apr 12 j 19:51 27° ¥ 30'28 -4411 Oct 03 j 18:55 7° **m** 55'43 evening set minimum elong 1°12'03 -4416 Apr 23 j 20:49 -4411 Oct 16 j 06:18 10° m 45'48 $0^{\circ}\Upsilon$ morning rise -4410 Feb 17 j 22:21 28° m 53'21 retrograde -4416 Apr 26 j 14:27 0°**Υ**37'09 0°-48'-52 -4410 Apr 20 j 01:49 24° m 00'01 1°23'49 conjunction opposition minimum elong -4416 Apr 26 j 14:31 0°**Υ**37'11 0°48'53 min. Earth dist. -4410 Apr 21 j 00:04 23° m 52'56 4.22489 AU max. Earth dist. -4416 Apr 27 j 19:36 0°**Υ**53'38 6.19298 AU direct -4410 Jun 20 j 11:28 19° m 04'18 morning rise -4416 May 10 j 08:29 3°**Y**43′23 -4410 Sep 19 j 08:34 0∘**⊽** retrograde -4416 Sep 12 j 12:12 22°**Υ**07'27 evening set -4410 Oct 23 j 03:40 7°**£**28'36 -4416 Nov 10 j 21:01 17°**Υ**06'28 0°-40'-41 opposition min. Earth dist. -4416 Nov 10 j 09:46 17°**Υ**10'15 4.24550 AU conjunction -4410 Nov 04 j 18:26 10°**2**24'19 0°36'57 -4415 Jan 09 j 23:20 12°**Υ**03'32 -4410 Nov 04 j 18:29 10°**2**24'21 direct minimum elong -4415 May 15 j 12:29 max. Earth dist. -4410 Nov 03 j 21:27 10°**2**12'07 0°8 6.17139 AU evening set -4415 May 17 j 17:39 0°**8**29'14 morning rise -4410 Nov 17 i 10:20 13° \alpha 20'48 -4409 Feb 13 i 14:31 conjunction -4415 May 31 i 08:35 3°**8**30'14 0°-4'-17 retrograde -4409 Mar 25 i 08:28 2°M22'18 minimum elong -4415 May 31 i 08:35 3°**8**30'14 0°04'13 -4409 May 04 j 11:28 30°R € behind sun begin -4415 May 31 j 00:27 3°**8**25'44 -4409 May 25 j 11:00 27° **2**25'44 0°19'33 opposition behind sun end -4415 May 31 j 16:44 3°**8**34'43 min. Earth dist. -4409 May 25 j 17:03 27° **2**23'46 4.11956 AU max. Earth dist. -4415 May 31 j 12:37 3°**8**32'25 direct -4409 Jul 24 j 11:43 22°**2**32'10 6 29446 AU -4415 Jun 13 j 21:24 6°829'57 desc. node -4409 Sep 07 j 15:07 25° **2**41'36 morning rise asc. node -4415 Jul 06 j 12:14 11°**8**22'22 -4409 Oct 04 j 06:43 0° M -4415 Jul 24 j 13:22 15°**8** evening set -4409 Nov 25 j 12:51 11°ML19'29 retrograde -4415 Oct 14 j 01:38 24°**8**04'52 -4415 Dec 12 j 16:00 19°**8**07'46 0°27'06 conjunction -4409 Dec 08 j 09:42 14°M21'59 0°-11'-32 opposition -4415 Dec 12 j 20:39 19°**8**06'14 4.33518 AU minimum elong -4409 Dec 08 j 09:41 14°M21'59 min. Earth dist. 0°11'41 -4414 Jan 18 j 11:29 15°R**∀** -4409 Dec 08 j 03:53 14°M18'34 behind sun begin -4414 Feb 12 j 01:11 14°**8**04'01 -4409 Dec 08 j 15:28 14°M25'24 direct behind sun end -4414 Mar 08 j 21:34 15°**8** max. Earth dist. -4409 Dec 08 j 12:52 14°ML23'51 6.07501 AU -4414 Jun 09 j 23:56 $0^{\circ}\Pi$ -4409 Dec 11 j 01:51 15°M evening set -4414 Jun 20 j 00:42 2°**Ⅲ**10′10 morning rise -4409 Dec 21 j 09:03 17°M25'59 -4408 Feb 17 j 22:57 0°**∡** conjunction -4414 Jul 03 j 07:43 5°**I**04'55 0°40'25 retrograde -4408 Apr 30 j 05:45 7°**∡**17'34 minimum elong -4414 Jul 03 j 07:40 5°**Ⅱ**04'54 0°40'36 -4408 Jun 29 j 21:35 2°**҂**17′03 opposition 0°-54'-28

max. Earth dist.

-4414 Jul 02 j 14:09

4°**Д**55'17 6.36570 AU

min. Earth dist.

-4408 Jun 29 j 10:51 2° ₹20'36 4.04082 AU

Planetary Phenomena of Jupiter from -4900 through -4400 (UT), Astrodienst AG 7-Dez-2017 14:35, page 44 Attention. astronomical year style is used: The year -4408 in astronomical counting style is the year 4409 BCE in historical counting style.

Attention, astronom	ical year style is used: The	he year -4408	in astronomical co	ounting style is the year	r 4409 BCE in historical	counting style	
	-4408 Jul 17 j 22:19	30°RM₊		conjunction	-4402 Jul 07 j 19:27	9° Ⅱ 32'34	0°45'56
direct	-4408 Aug 27 j 16:55	27°M23'57		minimum elong	-4402 Jul 07 j 19:23	9° Ⅱ 32'32	0°46'07
	-4408 Oct 06 j 18:31	0° ∡ ¹		max. Earth dist.	-4402 Jul 06 j 22:09	9° Ⅱ 20'53	6.37208 AU
evening set	-4408 Dec 29 j 18:25	16° ∡ ³31'58		morning rise	-4402 Jul 20 j 21:46	12° Ⅱ 24'48	
				retrograde	-4402 Nov 18 j 07:34	29° Ⅱ 29'29	
conjunction	-4407 Jan 11 j 22:39	19° ∡ ¹40'03	0°-57'-6	opposition	-4401 Jan 17 j 09:37	24° Ⅱ 36′06	1°31'27
minimum elong	-4407 Jan 11 j 22:35	19° ∡ ¹40′00	0°57'19	min. Earth dist.	-4401 Jan 18 j 05:42	24° Ⅱ 29'35	4.38763 AU
max. Earth dist.	-4407 Jan 13 j 02:09	19° ∡ ¹56'26	6.02066 AU	direct	-4401 Mar 20 j 19:23	19° Ⅱ 33'10	
morning rise	-4407 Jan 25 j 06:14	22° ∡ ¹49'56			-4401 Jun 20 j 15:16	0ಂತಿ	
	-4407 Feb 25 j 14:48	0°ಕ		evening set	-4401 Jul 26 j 09:08	7° 5 27'48	
retrograde	-4407 Jun 06 j 09:02	13° පි 06'42		max. Earth dist.	-4401 Aug 06 j 18:19	9° 5 57'47	6.38760 AU
min. Earth dist.	-4407 Aug 04 j 11:29	8° る 11'13	4.01818 AU				
opposition	-4407 Aug 05 j 12:18	8° る 02'52	-1°-49'-48	conjunction	-4401 Aug 08 j 05:29	10°917'09	1°15'44
direct	-4407 Oct 02 j 13:17	3° ප 08'10		minimum elong	-4401 Aug 08 j 05:26	10°917'07	1°15'57
evening set	-4406 Feb 04 j 10:48	22° る 25'15		morning rise	-4401 Aug 20 j 22:32	13° © 04'59	
					-4401 Dec 09 j 04:39	$0^{\circ}\Omega$	
conjunction	-4406 Feb 17 j 22:11	25° る 35'57	-1°-21'-45	retrograde	-4401 Dec 19 j 11:21	0° £ 10′03	
minimum elong	-4406 Feb 17 j 22:10	25° る 35'56	1°21'58		-4401 Dec 29 j 19:04	30° ℝ ∽	
max. Earth dist.	-4406 Feb 19 j 16:36	26° පි 01'00	6.03031 AU	opposition	-4400 Feb 18 j 02:07	25° © 18'25	2°00'47
morning rise	-4406 Mar 03 j 12:41			min. Earth dist.	-4400 Feb 19 j 05:54	25°909'32	4.37552 AU
•	-4406 Mar 08 j 15:56	0° ≈		direct	-4400 Apr 20 j 17:23	20°©17'32	
	-4406 May 23 j 07:17	15° ≈			-4400 Jul 17 j 07:00	$0^{\circ}\Omega$	
retrograde	-4406 Jul 12 j 15:50			evening set	-4400 Aug 25 j 11:28	8° Ω 13'35	
201108-11110	-4406 Sep 01 j 04:04			max. Earth dist.	-4400 Sep 05 j 07:55		6 34758 AU
min. Earth dist.	-4406 Sep 09 j 02:37		4.06024 AU	man. Bartir dist.		10 00000	0.5 1750 110
opposition	-4406 Sep 10 j 07:00		-2°-3'-20	conjunction	-4400 Sep 07 j 01:11	11° Ω 01'/42	1°24'12
direct	-4406 Nov 07 j 11:27	8°≈48'05	-2 -3 -20	minimum elong	-4400 Sep 07 j 01:11		
direct	-4405 Jan 10 j 14:24			morning rise	-4400 Sep 19 j 13:00		1 2422
avanina aat	-			morning rise	-4400 Sep 19 j 13:00		
evening set	-4405 Mar 13 j 12:08						
	-4405 Mar 22 j 08:54	0° ∺			-4400 Dec 21 j 11:03	0° m)	
conjunction	-4405 Mar 27 j 05:19	1°¥07'10	-1°-15'-44				
minimum elong	-4405 Mar 27 j 05:22		1°15'52				
max. Earth dist.	-4405 Mar 29 j 00:17	1° X 32'10	6.10043 AU				
	3		0.10043 AU				
morning rise	-4405 Apr 09 j 23:46	4°) 17′52					
retrograde	-4405 Aug 16 j 05:53		10 211 55				
opposition	-4405 Oct 14 j 14:03						
min. Earth dist.	-4405 Oct 13 j 15:51		4.15058 AU				
direct	-4405 Dec 12 j 14:23						
	-4404 Apr 07 j 12:26	0° Υ					
evening set	-4404 Apr 17 j 18:13	2° Y 16'50					
	440434 01:10.05	50000000	00 404 10				
conjunction	-4404 May 01 j 12:37	5° Y 23'02	0°-43'-12				
minimum elong	-4404 May 01 j 12:40	5° Y 23'04	0°43'12				
max. Earth dist.	-4404 May 02 j 13:47	5° Ƴ 37'14	6.20392 AU				
morning rise	-4404 May 15 j 06:31	8° Y 28'42					
retrograde	-4404 Sep 16 j 23:14						
opposition	-4404 Nov 15 j 08:45	21° Y 45'44	0°-31'-18				
min. Earth dist.	-4404 Nov 14 j 23:24	21° Y 48'53	4.25644 AU				
direct	-4403 Jan 14 j 15:29	16° Ƴ 42'33					
	-4403 Apr 28 j 18:17	0° 8					
asc. node	-4403 May 16 j 03:45	3° 8 42'55					
evening set	-4403 May 22 j 11:24	5° 8 05'55					
conjunction	-4403 Jun 05 j 01:41	8° 8 06'10	0°02'24				
minimum elong	-4403 Jun 05 j 01:39	8° 8 06'09	0°02'31				
behind sun begin	-4403 Jun 04 j 17:24	8° 8 01'36					
behind sun end	-4403 Jun 05 j 09:55	8° 8 10'42					
max. Earth dist.	-4403 Jun 05 j 04:18	8° 8 07'34	6.30479 AU				
morning rise	-4403 Jun 18 j 13:15						
-	-4403 Jul 06 j 15:49						
retrograde	-4403 Oct 18 j 09:47						
opposition	-4403 Dec 17 j 01:46		0°36'13				
min. Earth dist.	-4403 Dec 17 j 07:37		4.34401 AU				
direct	-4402 Feb 16 j 14:03						
	-4402 May 23 j 22:59	0° I					
evening set	-4402 Jun 24 i 13:55						

evening set

-4402 Jun 24 j 13:55 6°**Ц**38'40

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4400 in astronomical counting style is the year 4401 BCE in historical counting style. -4400 Feb 18 j 02:07 25°518'25 2°00'47 opposition -4395 Aug 10 j 14:32 13°♂12'22 -1°-54'-33 opposition -4400 Feb 19 j 05:54 25°509'32 4.37552 AU -4395 Aug 09 j 12:33 13°る21'09 4.01869 AU min. Earth dist. min. Earth dist. -4400 Apr 20 j 17:23 20°517'32 -4395 Oct 07 j 15:23 8°る17'21 direct direct -4400 Jul 17 j 07:00 -4394 Feb 09 j 16:05 27°る35'03 evening set $0^{\circ}\Omega$ -4400 Aug 25 j 11:28 -4394 Feb 19 j 22:36 evening set 8°**Ω**13'35 0°≈ -4400 Sep $05 \text{ j } 07:55 \quad 10^{\circ} \Omega 38'38$ max. Earth dist. 6.34758 AU -4394 Feb 23 j 04:34 conjunction 0°≈45'56 -1°-22'-48 -4400 Sep 07 j 01:11 11°**Ω**01'42 -4394 Feb 23 j 04:34 conjunction 1°24'12 minimum elong 0°**≈**45'56 1°23'00 minimum elong -4400 Sep 07 j 01:11 11°**Ω**01'42 1°24'22 max. Earth dist. -4394 Feb 25 j 02:00 1°≈12'43 6.03610 AU morning rise -4400 Sep 19 j 13:00 13° Ω 48'57 morning rise -4394 Mar 08 j 19:43 3°**≈**58′09 -4400 Sep 24 j 21:24 15°**Ω** -4394 Apr 28 j 09:41 15°**≈** -4400 Dec 21 j 11:03 -4394 Jul 17 j 16:09 0° M retrograde 23°**≈**56′25 -4394 Sep 14 j 00:56 retrograde -4399 Jan 19 j 19:24 1°Mp18'51 min. Earth dist. 19°≈01'00 4.07104 AU -4399 Feb 18 j 06:49 30°R**Ω** opposition -4394 Sep 15 j 05:18 18°**≈**51'19 -2°-1'-24 opposition -4399 Mar 21 j 18:43 26°**Ω**27'04 1°56'15 -4394 Oct 17 j 18:36 15°R≈ min. Earth dist. -4399 Mar 22 j 23:59 $26^{\circ}\Omega$ 17'47 4.31034 AU direct -4394 Nov 12 j 11:11 13°≈53'04 direct -4399 May 23 j 00:58 21°**Ω**28'52 -4394 Dec 08 j 08:18 15°≈ -4399 Aug 11 j 03:45 0° M -4393 Mar 05 j 11:51 0°\ evening set -4399 Sep 25 j 15:11 9° m 36'38 evening set -4393 Mar 18 j 16:21 2°**¥**59'36 max. Earth dist. -4399 Oct 06 j 16:37 12° m 07'36 6.26235 AU conjunction -4393 Apr 01 j 09:49 6°**)**€09'09 -1°-12'-31 conjunction -4399 Oct 08 i 03:29 12° m 27'29 1°08'18 minimum elong -4393 Apr 01 i 09:52 6°**¥**09'11 1°12'38 -4399 Oct 08 i 03:32 12° m 27'31 1°08'23 max. Earth dist. -4393 Apr 03 i 02:50 6°**)**€32'47 6.11539 AU minimum elong morning rise -4399 Oct 20 j 15:15 15° mp 18'18 morning rise -4393 Apr 15 i 04:38 9°**₩**19'09 -4398 Jan 04 j 12:07 0∘**⊽** -4393 Aug 20 j 21:06 28° ¥ 26'05 retrograde -4398 Feb 22 j 16:23 3°**£**32'46 -4393 Oct 18 j 08:59 23°\color 29'53 4.16820 AU retrograde min. Earth dist. -4398 Apr 14 j 04:12 30°R M -4393 Oct 19 j 06:27 23° ★ 22'34 -1°-24'-40 opposition -4398 Apr 24 j 21:14 28° mg 39'05 1°16'19 -4393 Dec 17 j 10:47 18° \(\frac{1}{2}\)1'09 opposition direct -4398 Apr 25 j 17:01 28° m/32'46 $0^{\circ}\Upsilon$ min. Earth dist. 4.20994 AU -4392 Mar 20 j 22:43 -4398 Jun 25 j 01:45 23° m 43'43 -4392 Apr 22 j 16:45 7°**Υ**04'22 direct evening set -4398 Aug 30 j 09:54 0°**♀** -4398 Oct 27 j 16:22 12° **2**11'17 -4392 May 06 j 10:55 10°**Υ**'09'37 0°-37'-17 conjunction evening set -4392 May 06 j 10:58 10°**Υ**09'39 0°37'17 minimum elong -4392 May 07 j 10:24 10°**Υ**22'50 -4398 Nov 09 j 07:49 15°**♀**07'57 0°30'43 conjunction max. Earth dist. 6.22302 AU -4398 Nov 09 j 07:51 15°**2**07'58 0°30'40 -4392 May 20 j 04:00 13°**Υ**14'09 minimum elong morning rise -4398 Nov 08 j 13:49 14°**⊆**57'26 -4392 Aug 23 j 01:23 0°8 max. Earth dist. 6.15613 AU -4392 Sep 21 j 09:15 morning rise -4398 Nov 22 j 00:33 18°**♀**05'29 retrograde 1°**8**22'33 -4397 Jan 17 j 02:52 0°M -4392 Oct 20 j 11:23 30°R℃ retrograde -4397 Mar 30 j 11:05 7°M14'59 opposition -4392 Nov 19 j 19:25 26°**Y**22'33 0°-21'-54 -4397 May 30 j 11:14 2°ML17'55 0°09'14 min. Earth dist. -4392 Nov 19 j 12:14 26°**Υ**24'57 4.27512 AU opposition min. Earth dist. -4397 May 30 j 15:59 2°ML16'22 4.10503 AU direct -4391 Jan 19 j 07:29 21°**Υ**19'13 -4397 Jun 17 j 22:43 30°R € -4391 Mar 26 j 19:46 27°**Υ**26'37 asc. node desc. node -4397 Jul 18 j 18:04 27°**♀**35'31 -4391 Apr 10 j 09:09 0°8 -4397 Jul 29 j 08:11 27°**♀**24'31 -4391 May 27 j 02:58 9°**8**37'37 direct evening set -4397 Sep 07 j 21:18 0°M -4391 Jun 09 j 16:01 12°**8**36'41 -4397 Nov 24 i 22:53 15°M conjunction evening set -4397 Nov 30 i 07:46 16°ML15'40 minimum elong -4391 Jun 09 i 16:00 12°**8**36'41 0°08'54 -4391 Jun 09 i 08:59 12°**8**32'49 behind sun begin -4397 Dec 13 i 05:39 19° 110'10 0°-18'-29 conjunction behind sun end -4391 Jun 09 j 23:02 12°**8**40'32 minimum elong -4397 Dec 13 i 05:37 19°ML19'09 0°18'39 max. Earth dist. -4391 Jun 09 j 14:18 12°**8**35'45 6.32143 AU -4397 Dec 13 j 11:52 19°M22'51 6.06258 AU -4391 Jun 20 j 11:56 15°8 max. Earth dist. -4397 Dec 26 j 06:15 22°M24'15 -4391 Jun 23 j 02:28 15°**8**34'19 morning rise morning rise -4396 Jan 28 j 17:33 -4391 Sep 08 j 14:34 0°**√** 0°Π retrograde -4396 May 05 j 09:46 12° ₹22'03 retrograde -4391 Oct 22 j 14:18 2°**I**57'44 min. Earth dist. -4396 Jul 04 j 10:52 7°**₹**¹25'34 4.03201 AU -4391 Dec 05 j 21:54 30°R8 7°**₹**21'04 -1°-4'00 -4391 Dec 21 j 08:24 28°**8**01'35 0°44'47 -4396 Jul 05 j 00:28 opposition opposition -4396 Sep 01 j 15:05 2°**∡**¹27'57 min. Earth dist. -4391 Dec 21 j 16:39 27°**8**58'52 4.35749 AU direct -4395 Jan 03 j 20:00 21° ₹38'59 direct -4390 Feb 21 j 01:12 22°**8**57'48 evening set -4390 May 05 j 00:13 $0^{\circ}\Pi$ -4395 Jan 17 j 01:12 24° **₹** 47'43 -1°-2'-10 -4390 Jun 28 j 22:55 10°**I**I58'27 conjunction evening set -4390 Jul 11 j 04:03 13°**Д**38'43 6.38121 AU minimum elong -4395 Jan 17 j 01:09 24° ₹ 47'41 1°02'23 max. Earth dist. max. Earth dist. -4395 Jan 18 j 07:03 25° ₹ 05'30 6.01610 AU morning rise -4395 Jan 30 j 09:53 27° ₹ 58'16 conjunction -4390 Jul 12 j 03:12 13°**Ⅲ**51'25 0°50'57 -4395 Feb 08 j 01:12 0°₹ minimum elong -4390 Jul 12 j 03:09 13°**Ⅲ**51'23 0°51'09 retrograde -4395 Jun 11 j 13:19 18°중16'30 morning rise -4390 Jul 25 j 03:59 16°**Ⅲ**42'41

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4390 in astronomical counting style is the year 4391 BCE in historical counting style. -4390 Oct 03 i 06:47 0 \circ \circ \circ retrograde -4384 May 10 j 16:55 17° ₹ 33'12 -4390 Nov 22 j 10:35 3°9544'48 -4384 Jul 10 j 05:35 12° ₹31'37 -1°-13'-10 retrograde opposition -4389 Jan 12 j 17:58 30°R **II** min. Earth dist. -4384 Jul 09 j 13:19 12° ₹37'01 4.02251 AU opposition -4389 Jan 21 j 15:13 28°**Д**51'46 1°37'05 -4384 Sep 06 j 17:24 direct 7°**∡**³38'18 4.39188 AU -4389 Jan 22 j 12:58 -4383 Jan 09 j 00:33 26°**尽** 52'20 min. Earth dist. 28°**∏**44'45 evening set -4389 Mar 25 j 02:59 23°**Ⅲ**49'02 direct -4389 Jun 01 j 07:59 0°る01'43 -1°-6'-48 -4383 Jan 22 j 07:00 0 \circ \odot conjunction minimum elong -4383 Jan 22 j 06:57 0°る01'40 1°07'02 evening set -4389 Jul 30 j 14:07 11°5642'32 max. Earth dist. -4383 Jan 22 j 04:08 0°궁 -4389 Aug 10 j 18:22 14°510'01 6.38625 AU -4383 Jan 23 j 17:57 max. Earth dist. 0°**る**22'31 6.01276 AU conjunction -4389 Aug 12 j 09:11 14°531'25 1°18'12 morning rise -4383 Feb 04 j 16:40 3°**る**12'49 -4389 Aug 12 j 09:09 14°531'24 -4383 Jun 16 j 20:12 23°₹31'01 minimum elong 1°18'24 retrograde -4389 Aug 25 j 01:25 17°518'56 -4383 Aug 15 j 18:29 18°る26'32 morning rise opposition -1°-58'-24 -4389 Oct 29 j 13:57 $0^{\circ}\Omega$ min. Earth dist. -4383 Aug 14 j 15:18 18° **정**35'44 4.02200 AU retrograde -4389 Dec 23 j 18:29 4°**Ω**25'54 direct -4383 Oct 12 j 18:40 13°**る**31'05 -4388 Feb 19 j 01:15 30°Rூ -4382 Feb 02 j 21:17 opposition -4388 Feb 22 j 09:50 29°534'19 2°02'13 evening set -4382 Feb 14 j 23:11 2°≈47'57 min. Earth dist. -4388 Feb 23 j 15:37 29°524'49 4.36873 AU direct -4388 Apr 25 j 01:39 24°533'39 conjunction -4382 Feb 28 j 12:23 5°≈58'46 -1°-23'-12 -4388 Jun 27 j 07:04 0 $^{\circ}\Omega$ minimum elong -4382 Feb 28 j 12:23 5°≈58'46 1°23'23 evening set -4388 Aug 29 j 15:38 12° Ω31'16 max. Earth dist. -4382 Mar 02 j 09:53 6°≈25'29 6.04513 AU max. Earth dist. $-4388 \text{ Sep } 09 \text{ i } 11:52 \quad 14^{\circ} \Omega 56'35$ 6.33575 AU morning rise -4382 Mar 14 j 04:25 9°≈10'51 -4388 Sep 09 j 17:59 15°**Ω** -4382 Apr 08 i 19:13 15°≈ retrograde -4382 Jul 22 j 14:14 29°≈02'35 conjunction $-4388 \text{ Sep } 11 \text{ i } 05:04 \quad 15^{\circ} \Omega 19'40 \quad 1^{\circ} 23'28$ min. Earth dist. -4382 Sep 18 j 23:11 24°≈07'16 4.08451 AU -4388 Sep 11 j 05:04 15° Ω19'40 1°23'37 opposition -4382 Sep 20 j 03:55 23°≈57'27 -1°-58'-30 minimum elong -4388 Sep 23 j 16:28 $18^{\circ}\Omega07'15$ -4382 Nov 17 j 11:53 18°≈58'40 morning rise direct -4388 Nov 21 j 17:38 -4381 Feb 15 j 07:06 0°**₩** 0°m -4387 Jan 24 j 06:16 -4381 Mar 23 j 20:43 8°**)** 01'30 retrograde 5° m 43'08 evening set -4387 Mar 26 j 07:06 0° m 51'12 1°52'51 opposition -4387 Mar 27 j 11:32 0° Mp 42'10 4.29423 AU -4381 Apr 06 j 14:39 11°¥ 10'30 -1°-8'-44 min. Earth dist. conjunction -4387 Apr 02 j 01:05 30°RΩ minimum elong -4381 Apr 08 j 06:36 11°**¥** 33'26 6.13201 AU -4387 May 27 j 09:22 25°**Ω**53'21 direct max. Earth dist. -4381 Apr 20 j 09:22 14° **₭** 19'43 -4387 Jul 20 j 01:21 0° Mp morning rise -4387 Sep 29 j 22:25 14° m 05'03 -4381 Jul 10 j 09:15 0°**Υ** evening set -4387 Oct 11 j 00:39 16° Mp 37'09 -4381 Aug 25 j 14:19 3°Υ17'21 max. Earth dist. 6.24327 AU retrograde -4381 Oct 10 j 16:49 30°R € conjunction -4387 Oct 12 j 10:52 16° m 56'46 1°04'18 opposition -4381 Oct 23 j 22:47 28° **X** 14'16 -1°-16'-49 -4387 Oct 12 j 10:56 16° m 56'48 1°04'22 min. Earth dist. -4381 Oct 23 j 03:44 28°\\$20'44 4.18588 AU minimum elong morning rise -4387 Oct 24 j 23:14 19° Mp 48'36 direct -4381 Dec 22 j 08:30 23° **₭** 12'30 -4387 Dec 11 j 22:20 0∘ಹ -4380 Feb 29 j 14:49 0°**Υ** -4386 Feb 27 j 13:51 8°**£**12'14 -4380 Apr 27 j 15:27 11°**Υ**51'11 retrograde evening set -4386 Apr 29 j 16:37 3°**№**18'09 1°08'25 opposition min. Earth dist. -4386 Apr 30 j 11:36 3°**2**12'04 4.18900 AU -4380 May 11 j 09:10 14° Υ 55'31 0°-31'-6 conjunction -4386 May 28 j 01:28 30°R M -4380 May 11 j 09:13 14°**Υ**55'33 0°31'04 minimum elong -4386 Jun 29 i 17:06 28° m 23'03 -4380 May 12 j 05:07 15°**Υ**'06'41 direct max. Earth dist. 6.24035 AU -4380 May 25 j 01:38 17°**Υ**59'03 -4386 Aug 01 i 00:18 morning rise -4386 Nov 01 j 05:38 16°**≏**56'01 -4380 Jul 23 i 14:35 0°℃ evening set retrograde -4380 Sep 25 i 18:38 5°**8**59'17 conjunction -4386 Nov 13 j 22:02 19°**£**53'57 0°24'17 opposition -4380 Nov 24 j 06:41 0°859'50 0°-12'-17 -4386 Nov 13 j 22:04 19°**£**53'58 0°24'14 min. Earth dist. -4380 Nov 24 j 01:13 1°**8**01'40 4.29065 AU minimum elong max. Earth dist. -4386 Nov 13 j 07:10 19°**2**45'15 -4380 Dec 01 j 18:40 30°RΥ 6.13538 AU -4386 Nov 26 j 15:52 22°**£**52'52 direct -4379 Jan 23 j 22:47 25° Υ 56'22 morning rise -4379 Feb 03 j 09:51 26°**Y**06'44 -4386 Dec 28 j 07:58 0°M asc. node retrograde -4385 Apr 04 j 13:56 12°ML12'11 -4379 Mar 18 j 04:32 ್ಣಿ ೧°႘ -4385 May 29 j 01:37 desc. node 8°**ጤ**04'49 evening set -4379 May 31 j 19:19 14°**8**11'11 -4385 Jun 04 j 12:58 opposition 7°M14'35 0°-1'-12 -4379 Jun 04 j 12:26 15°**8** min. Earth dist. -4385 Jun 04 j 14:24 7°**ጤ**14'07 4.08639 AU -4385 Aug 03 j 03:35 2°M21'24 -4379 Jun 14 j 07:18 17°\(\begin{aligned}
 609'17 0°15'12 \end{aligned}
 17 0°15'12 direct conjunction -4385 Nov 07 j 19:08 15°M -4379 Jun 14 j 07:16 17°**8**09'16 0°15'20 minimum elong -4385 Dec 05 j 05:27 21°M 17'49 -4379 Jun 14 j 05:10 17°**8**08'07 evening set behind sun begin behind sun end -4379 Jun 14 j 09:22 17°**8**10'26 conjunction -4385 Dec 18 j 04:21 24°M22'26 0°-25'-23 max. Earth dist. -4379 Jun 14 j 02:15 17°**8**06'31 6.33410 AU minimum elong -4385 Dec 18 j 04:19 24°M22'25 0°25'33 morning rise -4379 Jun 27 j 16:26 20°**8**05'53 max. Earth dist. -4385 Dec 18 j 14:09 24°ML28'15 6.04770 AU -4379 Aug 15 j 05:55 Π °0 -4385 Dec 31 j 06:14 27°M28'43 -4379 Oct 26 j 22:36 7°**Ⅲ**24'30 morning rise retrograde

-4379 Dec 25 j 17:26

opposition

2°**II**28'56 0°53'19

-4384 Jan 11 j 00:34

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4379 in astronomical counting style is the year 4380 BCE in historical counting style. min. Earth dist. -4379 Dec 26 j 04:23 2°**Д**25'21 4.36647 AU -4373 Oct 19 i 02:19 15°M -4378 Jan 14 j 12:39 30°R8 -4373 Dec 10 j 04:04 26°M22'48 evening set -4378 Feb 25 j 14:16 27°**8**25'16 direct -4373 Dec 23 j 04:05 29°M28'10 0°-32'-8 -4378 Apr 08 j 22:55 conjunction $\Pi^{\circ}0$ -4378 Jul 03 j 10:21 15°**Д**24'02 -4373 Dec 23 j 04:03 29°M28'09 0°32'19 evening set minimum elong -4378 Jul 15 ј 10:17 18°**Д**01'30 -4373 Dec 23 j 19:17 29°M237'12 6.04089 AU max. Earth dist. 6.38560 AU max. Earth dist. 0°**∡**¹ -4373 Dec 25 j 09:33 conjunction -4378 Jul 16 j 13:14 18°**Ⅲ**16'17 0°55'51 morning rise -4372 Jan 05 j 06:58 2°**х** 35′13 minimum elong -4378 Jul 16 j 13:10 18°**Ⅲ**16'15 0°56'04 retrograde -4372 May 15 j 23:28 22° ₹ 42'57 morning rise -4378 Jul 29 j 12:46 21°**Ⅲ**06'50 opposition -4372 Jul 15 j 09:42 17°**х** 40'52 -1°-21'-41 -4378 Sep 10 j 19:29 0ಂತಾ min. Earth dist. -4372 Jul 14 j 15:31 17° **₹** 46'56 4.02099 AU -4378 Nov 26 j 18:36 -4372 Sep 11 j 19:17 12° ₹ 47'24 retrograde 8°908'12 direct -4371 Jan 05 j 12:34 opposition -4377 Jan 26 j 00:39 3°**©**15'29 1°42'26 0°ಕ min. Earth dist. -4377 Jan 27 j 00:03 3°507'56 4.39179 AU evening set -4371 Jan 14 j 03:33 2°**る**01'39 -4377 Feb 22 j 14:29 30°R∏ direct -4377 Mar 29 j 13:42 28°**Ⅲ**12'57 conjunction -4371 Jan 27 j 10:45 5°る11'12 -1°-10'-51 -4377 May 03 j 17:34 0ಂತಾ minimum elong -4371 Jan 27 j 10:42 5°**ට**11'10 1°11'05 evening set -4377 Aug 03 j 22:49 16°506'42 max. Earth dist. -4371 Jan 28 j 22:58 5°**る**32'44 6.01620 AU max. Earth dist. -4377 Aug 15 j 02:02 18°533'50 6.38162 AU morning rise -4371 Feb 09 j 21:28 8°る22'32 retrograde -4371 Jun 21 j 20:00 28°る38'05 conjunction -4377 Aug 16 j 16:58 18°\$55'21 1°20'21 opposition -4371 Aug 20 j 18:41 23°る33'18 -2°-1'-11 minimum elong -4377 Aug 16 j 16:56 18°\$55'20 1°20'32 min. Earth dist. -4371 Aug 19 i 13:57 23°る43'03 4.03025 AU morning rise -4377 Aug 29 i 08:06 21°5642'39 direct -4371 Oct 17 j 18:39 18°る37'23 -4377 Oct 08 i 02:33 $0^{\circ}\Omega$ -4370 Jan 16 i 01:32 0°≈ retrograde -4377 Dec 28 j 05:25 8°**Ω**52'39 -4370 Feb 20 j 02:35 7°≈52'02 evening set -4376 Feb 26 j 22:25 4°Ω01'13 2°03'04 opposition -4376 Feb 28 j 04:29 -4370 Mar 05 j 16:38 11°≈02'38 -1°-22'-57 min. Earth dist. 3°**Ω**51'39 4.35998 AU conjunction -4376 Apr 03 j 18:43 30°Rூ -4370 Mar 05 j 16:39 11°≈02'38 1°23'08 minimum elong -4376 Apr 29 j 12:45 29°500'59 -4370 Mar 07 j 14:44 11°≈29'37 direct max. Earth dist. 6.05727 AU -4376 May 25 j 07:58 0°Ω-4370 Mar 19 j 09:03 14°≈14'19 morning rise -4370 Mar 22 j 15:58 15°≈ -4376 Aug 24 j 22:14 15°**Ω** -4370 Jun 06 j 05:15 evening set -4376 Sep 03 j 00:17 17° Ω00'33 0°\ max. Earth dist. -4376 Sep 13 j 18:56 19°**Ω**25'30 6.32347 AU -4370 Jul 27 j 10:11 3°**¥**58'42 retrograde -4370 Sep 16 j 18:36 30°R≈ -4376 Sep 15 j 13:09 19° Ω 49'15 1°22'13 -4370 Sep 24 j 22:14 28°≈53'42 -1°-54'-51 conjunction opposition -4376 Sep 15 j 13:11 19° Ω 49'16 1°22'22 -4370 Sep 23 j 19:24 29°≈02'52 4.09908 AU minimum elong min. Earth dist. -4376 Sep 28 j 00:34 $22^{\circ}\Omega$ 37'18 -4370 Nov 22 j 10:15 23°≈54'26 morning rise direct -4376 Nov 01 j 10:11 0° m -4369 Jan 25 j 10:26 0°**光** retrograde -4375 Jan 29 j 00:44 10° Mp 19'33 evening set -4369 Mar 28 j 20:47 12° **∺** 53'31 -4375 Mar 31 j 01:02 5° m 27'28 1°48'37 opposition min. Earth dist. -4375 Apr 01 j 04:58 5° Mp 18'35 4.27918 AU conjunction -4369 Apr 11 j 14:58 16°**米**01'57 -1°-4'-36 -4375 Jun 01 j 00:21 0°m/30'01 -4369 Apr 11 j 15:02 16° **米** 01'59 1°04'41 direct minimum elong -4375 Oct 04 j 09:46 18° Mp 45'00 -4369 Apr 13 j 04:38 16° **€** 23'28 6.14772 AU evening set max. Earth dist. -4369 Apr 25 j 09:44 19° **₭** 10'28 morning rise -4375 Oct 16 j 22:41 21° m 37'33 0°59'44 -4369 Jun 15 j 18:11 $0^{\circ}\Upsilon$ conjunction -4375 Oct 16 j 22:45 21° m 37'35 0°59'46 minimum elong retrograde -4369 Aug 30 i 01:57 7°**Y**59'33 max. Earth dist. -4375 Oct 15 j 15:36 21° m 19'40 6.22703 AU opposition -4369 Oct 28 i 11:17 2°Υ56'54 -1°-8'-46 morning rise -4375 Oct 29 i 11:28 24° m 30'18 min. Earth dist. -4369 Oct 27 i 17:24 3°**Υ**02'59 4.20120 AU -4375 Nov 23 i 02:48 -4369 Nov 20 i 18:41 30°R € -4374 Mar 04 i 13:14 13° \alpha 02'04 -4369 Dec 27 j 00:16 27° **\f** 54'47 retrograde direct -4374 May 04 i 16:07 8°**♀**07'38 0°59'42 -4368 Feb 01 j 17:20 $0^{\circ}\Upsilon$ opposition min. Earth dist. -4374 May 05 j 08:25 8°**2**02'25 4.17294 AU -4368 May 02 j 10:23 16°**Υ**29'58 evening set -4374 Jul 04 j 10:56 3°**£**13'00 direct -4368 May 16 j 03:34 19°**Υ**'33'31 0°-24'-54 evening set -4374 Nov 05 j 22:28 21°**£**49'32 conjunction minimum elong -4368 May 16 j 03:36 19°**Υ**33'32 0°24'51 -4374 Nov 18 j 15:31 24°**£**48'25 0°17'30 conjunction max. Earth dist. -4368 May 16 j 19:05 19°**Υ**42'11 6.25418 AU minimum elong -4374 Nov 18 j 15:32 24°**△**48'25 0°17'25 morning rise -4368 May 29 j 19:20 22°**Y**36′09 -4374 Nov 18 j 03:34 24°**£**41'24 -4368 Jul 03 j 13:03 0°8 max. Earth dist. 6.12112 AU -4374 Dec 01 j 10:28 27°**△**48'25 -4368 Sep 30 j 04:13 10°**8**29'54 morning rise retrograde -4368 Nov 28 j 15:41 5°**8**31'01 0°-2'-52 -4374 Dec 10 j 21:28 0°M opposition -4368 Nov 28 j 13:33 5°**8**31'44 4.30183 AU -4373 Mar 02 j 04:20 15°M min. Earth dist. desc. node -4373 Apr 07 j 19:41 17° ML 14'44 asc. node -4368 Dec 15 j 07:20 3°**8**22'01 retrograde -4373 Apr 09 j 18:13 17° ML 15'06 direct -4367 Jan 28 j 12:50 0°**8**27'24 -4373 May 18 j 13:23 15°RM -4367 May 19 j 08:31 15°**8** opposition -4373 Jun 09 j 16:33 12°ML16'54 0°-11'-52 evening set -4367 Jun 05 j 09:25 18°**8**40'05 -4373 Jun 09 j 14:59 12°M 17'25 min. Earth dist. 4.07529 AU -4373 Aug 08 j 03:25 -4367 Jun 18 j 20:23 21°837'26 0°21'24 direct 7°M23'51 conjunction

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4367 in astronomical counting style is the year 4368 BCE in historical counting style. -4367 Jun 18 j 20:22 21°837'26 0°21'32 -4361 Jul 02 j 18:59 15°RM minimum elong -4367 Jun 18 j 12:08 21°**8**32'54 -4361 Aug 13 j 02:11 12° M22'44 max. Earth dist. 6.34179 AU direct -4361 Sep 22 j 14:00 15°M -4367 Jul 02 j 04:17 24°\begin{align*} 24°\begin{align*} 33'13 \end{align*} morning rise -4367 Jul 27 j 17:54 $\Pi^{\circ}0$ -4361 Dec 09 j 04:04 0°**∡**¹ -4367 Oct 31 j 04:48 11°**II**48'47 -4361 Dec 15 j 01:52 retrograde evening set 1°**∡**¹23'33 -4367 Dec 30 j 01:21 opposition 6°**Ⅱ**53'39 1°01'24 min. Earth dist. 0°-38'-36 -4367 Dec 30 j 13:39 6°**Ⅱ**49'37 4.37052 AU conjunction -4361 Dec 28 j 02:41 4°**҂**¹29'31 direct -4366 Mar 01 j 23:52 1°**Ⅲ**50′03 minimum elong -4361 Dec 28 j 02:38 4°**х** 29′30 0°38'47 evening set -4366 Jul 07 j 21:01 19°**Ⅲ**48'29 max. Earth dist. -4361 Dec 28 j 19:46 4°**∡**³39'42 6.03579 AU morning rise -4360 Jan 10 j 06:48 7°**∡**³37'17 conjunction -4366 Jul 20 j 22:38 22°**Ⅱ**40'10 1°00'23 retrograde -4360 May 21 j 01:54 27°**х** 47'37 -4366 Jul 20 j 22:34 22°**Ⅱ**40'08 -4360 Jul 20 j 11:27 22°**х** 45'05 minimum elong 1°00'35 opposition -1°-29'-30 -4360 Jul 19 j 14:42 22°**х** 52'01 max. Earth dist. -4366 Jul 19 j 17:42 22°**Ⅱ**24'16 6.38569 AU min. Earth dist. 4.01992 AU morning rise -4366 Aug 02 j 20:54 25°**Ⅱ**30'13 direct -4360 Sep 16 j 18:02 17°**尽** 51'23 -4366 Aug 23 j 21:27 0 \circ \odot -4360 Dec 19 j 03:56 0°정 retrograde -4366 Dec 01 j 04:00 12°532'07 evening set -4359 Jan 19 j 05:18 7°**る**06'13 opposition -4365 Jan 30 j 10:39 7°**©**39'44 1°47'11 min. Earth dist. -4365 Jan 31 j 11:43 7°531'40 4.38817 AU conjunction -4359 Feb 01 j 13:37 10°る16'05 -1°-14'-20 direct -4365 Apr 03 j 00:54 2°937'30 minimum elong -4359 Feb 01 j 13:34 10°る16'04 1°14'33 evening set -4365 Aug 08 j 07:44 20°532'12 max. Earth dist. -4359 Feb 03 j 04:36 10°₹39'15 6.01916 AU max. Earth dist. -4365 Aug 19 j 08:10 22°558'10 6.37440 AU morning rise -4359 Feb 15 j 01:05 13°る27'37 -4359 May 08 j 14:25 0°≈ conjunction -4365 Aug 21 i 00:53 23°520'44 1°22'01 retrograde -4359 Jun 26 j 21:05 3°≈40'50 minimum elong -4365 Aug 21 i 00:52 23°520'43 1°22'12 -4359 Aug 15 i 06:29 30°Rる morning rise -4365 Sep 02 j 15:22 26°508'00 opposition -4359 Aug 25 j 17:19 28°る35'53 -2°-3'-5 -4365 Sep 20 j 11:30 0°Ω min. Earth dist. -4359 Aug 24 j 13:16 28°る45'25 4 03697 AU -4364 Jan 01 j 18:26 13° Ω21'48 -4359 Oct 22 j 18:26 23°る39'34 retrograde direct -4364 Mar 02 j 12:23 -4359 Dec 26 j 08:40 8°**Ω**30'21 2°03'10 opposition 0°≈≈ -4364 Mar 03 j 18:08 -4358 Feb 25 j 05:07 12°≈52'54 min. Earth dist. 8°**Ω**20'53 4.34985 AU evening set -4364 May 04 j 00:50 3° Ω30'28 -4358 Mar 06 j 07:20 15°≈ direct -4364 Aug 08 j 02:04 15°**Ω** -4364 Sep 07 j 09:43 21°**Ω**32'02 -4358 Mar 10 j 19:56 16°≈03'24 -1°-22'-7 evening set conjunction -4364 Sep 18 j 06:50 23°Ω58'45 6.31137 AU -4358 Mar 10 j 19:58 16°≈03'25 1°22'17 max. Earth dist. minimum elong -4358 Mar 12 j 17:42 16°≈30'06 6.06704 AU max. Earth dist. -4364 Sep 19 j 22:25 $24^{\circ}\Omega 21'05$ $1^{\circ}20'27$ -4358 Mar 24 j 13:01 19°≈14'54 conjunction morning rise $-4364 \text{ Sep } 19 \text{ j } 22:27 \quad 24^{\circ} \Omega 21'06 \quad 1^{\circ} 20'34$ -4358 May 13 j 05:35 0°**光** minimum elong -4364 Oct 02 j 09:33 27° **Ω**09'34 morning rise retrograde -4358 Aug 01 j 04:15 8°**¥**52'55 -4364 Oct 15 j 04:46 0° M -4358 Sep 29 j 15:47 3°**)** 48'09 -1°-50'-27 opposition retrograde -4363 Feb 02 j 18:42 14° Mp 57'47 min. Earth dist. -4358 Sep 28 j 13:07 3°**升**57′16 4.11088 AU -4363 Apr 04 j 19:52 10° m 05'28 1°43'36 -4358 Oct 31 j 13:03 30°R≈ opposition min. Earth dist. -4363 Apr 05 j 22:30 9° m 57'01 4.26582 AU direct -4358 Nov 27 j 05:36 28°≈48'28 -4363 Jun 05 j 15:51 5° Mp 08'30 -4358 Dec 24 j 05:07 0°**光** direct -4363 Oct 08 j 21:52 23° m 25'49 -4357 Apr 02 j 20:57 17° **₭** 45'04 evening set evening set max. Earth dist. -4363 Oct 20 j 05:20 26° m 01'57 6.21354 AU -4357 Apr 16 j 15:17 20° **★**53'02 -1°00'-3 conjunction -4363 Oct 21 j 11:00 26° mp 19'04 0°54'45 conjunction minimum elong -4357 Apr 16 j 15:21 20° ¥ 53'04 1°00'06 minimum elong -4363 Oct 21 i 11:03 26° m 19'06 0°54'47 max. Earth dist. -4357 Apr 18 j 01:13 21° \(\) 12'22 6.16063 AU -4363 Nov 03 i 00:33 29° m 12'41 morning rise morning rise -4357 Apr 30 i 10:04 24° ★ 00'58 -4363 Nov 06 i 11:15 0°**♀** -4357 May 27 j 15:15 retrograde -4362 Mar 09 i 12:41 17° **2**51'27 $-4357 \text{ Sep } 03 \text{ j } 16:03 \quad 12^{\circ} \Upsilon 42'47$ retrograde -4362 May 09 j 15:40 12°**2**56'29 0°50'33 min. Earth dist. -4357 Nov 01 j 09:18 7°**Υ**45'42 4.21374 AU opposition min. Earth dist. -4362 May 10 j 05:20 12° -4252'06 4.16001 AU -4357 Nov 02 j 00:19 7°**Υ**'40'36 -1°00'-16 opposition -4362 Jul 09 j 06:26 8°**♀**02'08 direct -4357 Dec 31 j 18:20 2°**Υ**38'11 direct -4362 Nov 10 j 14:44 26°**2**41'02 evening set evening set -4356 May 07 j 06:10 21°**Υ**10'52 -4356 May 20 j 22:58 24° **Y** 13'47 0° -18'-29 conjunction -4362 Nov 23 j 08:46 29°**△**40'47 0°10'37 conjunction minimum elong -4362 Nov 23 j 08:47 29°**Ω**40'48 0°10'31 minimum elong -4356 May 20 j 23:00 24° **Y**13'48 0°18'25 -4362 Nov 23 j 02:27 29°**♀**37'05 -4356 May 21 j 12:11 24°**Υ**21'09 behind sun begin max. Earth dist. 6.26556 AU -4356 Jun 03 j 13:51 27°**Υ**15'37 behind sun end -4362 Nov 23 j 15:06 29°**Ω**44'30 morning rise -4356 Jun 16 j 02:03 max. Earth dist. -4362 Nov 23 j 01:42 29°**△**36'39 6.11001 AU 0° 8 -4362 Nov 24 j 17:24 0°M₊ -4356 Sep 28 j 09:12 15°**8** morning rise -4362 Dec 06 j 04:35 2°M41'42 retrograde -4356 Oct 04 j 13:10 15°**8**03'45 -4361 Feb 01 j 19:17 15°M -4356 Oct 10 j 16:40 15°R₩ desc. node -4361 Feb 15 j 21:41 17° ML22'26 asc. node -4356 Oct 25 j 09:31 14°**8**21'03 retrograde -4361 Apr 14 j 22:13 22°M14'24 opposition -4356 Dec 03 j 01:51 10°**8**05'26 0°06'41 -4361 Jun 14 j 18:54 17°ML15'42 0°-22'-24 min. Earth dist. -4356 Dec 03 j 00:52 10°**8**05'46 4.31121 AU opposition

direct

-4355 Feb 02 j 01:16 5°**8**01'47

min. Earth dist.

-4361 Jun 14 j 15:20 17°ML16'51 4.06692 AU

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 5

•	*		•	, , ,	4356 BCE in historical of	, .	
	-4355 May 01 j 12:37	-		morning rise	-4350 Dec 10 j 21:04	7°M30'28	
evening set	-4355 Jun 10 j 00:50	23° 8 12'53		desc. node	-4350 Dec 27 j 21:19	11°M26'00	
					-4349 Jan 13 j 02:21	15° ™	
conjunction	-4355 Jun 23 j 10:32	26° 8 09'29	0°27'35	retrograde	-4349 Apr 19 j 21:30	27°M08'11	
minimum elong	-4355 Jun 23 j 10:30	26° 8 09'28	0°27'46	opposition	-4349 Jun 19 j 18:11	22°M08'53	0°-32'-32
max. Earth dist.	-4355 Jun 22 j 22:17		6.34849 AU	min. Earth dist.	-4349 Jun 19 j 11:44		4.06020 AU
morning rise	-4355 Jul 06 j 17:18			direct	-4349 Aug 17 j 21:16		
	-4355 Jul 10 j 23:09	$\Pi^{\circ}0$			-4349 Nov 22 j 11:40	0° ∡	
retrograde	-4355 Nov 04 j 14:57			evening set	-4349 Dec 19 j 21:17	6° ≯ 18'18	
opposition	-4354 Jan 03 j 11:25				12.10.1	00 30 450	00 444 20
min. Earth dist.	-4354 Jan 04 j 02:20 -4354 Mar 06 j 13:18		4.37430 AU	conjunction	-4348 Jan 01 j 23:11	9°×724'53	0°-44'-38
direct evening set	-4354 Mar 06 j 13:18 -4354 Jul 12 j 08:49	6° Ⅱ 19'26		minimum elong max. Earth dist.	-4348 Jan 01 j 23:07 -4348 Jan 02 j 20:01	9° ₹ 24'51 9° ₹ 37'18	0°44'51 6.03153 AU
max. Earth dist.	-4354 Jul 24 j 02:54		6 38625 AU	morning rise	-4348 Jan 15 j 04:09	12° × 33'14	0.03133 AO
max. Larm dist.	-4354 Jul 24 J 02.54	20 1131 47	0.36023 AC	morning risc	-4348 Apr 13 j 12:45	0°る	
conjunction	-4354 Jul 25 j 09:15	27° I 108'27	1°04'40	retrograde	-4348 May 26 j 03:20	2° る 45'52	
minimum elong	-4354 Jul 25 j 09:12		1°04'52		-4348 Jul 07 j 16:51		
morning rise	-4354 Aug 07 j 06:13			opposition	-4348 Jul 25 j 10:25		-1°-36'-30
	-4354 Aug 07 j 09:57	0ಂತ		min. Earth dist.	-4348 Jul 24 j 13:29	27° ∡ ⁴49'54	4.01867 AU
retrograde	-4354 Dec 05 j 13:22	17° © 00'21		direct	-4348 Sep 21 j 16:02	22° ∡ ¹48'53	
opposition	-4353 Feb 03 j 22:15	12° 5 08'11	1°51'26		-4348 Nov 29 j 14:56	5°0	
min. Earth dist.	-4353 Feb 04 j 23:13	12° 5 00'09	4.38599 AU	evening set	-4347 Jan 24 j 04:49	12° る 04'37	
direct	-4353 Apr 07 j 11:56	7° 5 06'16					
evening set	-4353 Aug 12 j 17:36			conjunction	-4347 Feb 06 j 14:02		
max. Earth dist.	-4353 Aug 23 j 17:50	27°5527'21	6.36973 AU	minimum elong	-4347 Feb 06 j 14:00		1°17'25
. ,.	4252 4 25 : 00 40	2705 40122	1000116	max. Earth dist.	-4347 Feb 08 j 06:02		6.02086 AU
conjunction	-4353 Aug 25 j 09:49	27°549'33	1°23'16	morning rise	-4347 Feb 20 j 02:31		
minimum elong	-4353 Aug 25 j 09:48 -4353 Sep 04 j 05:04	27° © 49'32 0° Ω	1°23'27	retrograde	-4347 Apr 14 j 00:51 -4347 Jul 01 j 18:24	0° ≈ 8° ≈ 37'49	
morning rise	-4353 Sep 04 j 03:04 -4353 Sep 06 j 23:26	0° Ω 36'40		min. Earth dist.	-4347 Jul 01 j 18.24 -4347 Aug 29 j 08:27	3°≈42'36	4.04178 AU
morning risc	-4353 Nov 23 j 06:57			opposition	-4347 Aug 30 j 13:18	3°≈32'48	-2°-4'-5
retrograde	-4352 Jan 06 j 08:25	17° Ω 53'23		оррозион	-4347 Sep 28 j 18:41		2 1 3
	-4352 Feb 20 j 04:12			direct	-4347 Oct 27 j 13:56		
opposition	-4352 Mar 07 j 03:13		2°02'33		-4347 Nov 25 j 13:10	0° ≈	
min. Earth dist.	-4352 Mar 08 j 09:14		4.34302 AU		-4346 Feb 17 j 23:54	15° ≈	
direct	-4352 May 08 j 15:17	8° Ω 02'28		evening set	-4346 Mar 02 j 06:13	17° ≈ 49′00	
	-4352 Jul 19 j 16:31	15° Ω					
evening set	-4352 Sep 11 j 19:01			conjunction	-4346 Mar 15 j 21:44	20° ≈ 59'30	-1°-20'-42
max. Earth dist.	-4352 Sep 22 j 16:03	28° Ω 31'40	6.30287 AU	minimum elong	-4346 Mar 15 j 21:47		1°20'51
				max. Earth dist.	-4346 Mar 17 j 17:31		6.07450 AU
conjunction	-4352 Sep 24 j 07:23	28° Ω 53'54	1°18'13	morning rise	-4346 Mar 29 j 15:25		
minimum elong	-4352 Sep 24 j 07:25	28° Ω 53'55	1°18'19		-4346 Apr 24 j 11:40	0°) (
morning rise	-4352 Sep 29 j 04:21 -4352 Oct 06 j 18:36	0°Mp 1°Mp42'45		retrograde min. Earth dist.	-4346 Aug 05 j 21:56 -4346 Oct 03 j 07:04	13°) 43′28 8°) 47′24	4.12013 AU
retrograde	-4351 Feb 07 j 11:28	19° Mp 35'48		opposition	-4346 Oct 04 j 07:55	8° H 38'55	-1°-45'-22
opposition	-4351 Apr 09 j 14:25	14° m) 43'08	1°37'58	direct	-4346 Dec 02 j 01:18	3°) (38'46	1 43 22
min. Earth dist.	-4351 Apr 10 j 14:58	14° m) 35'19	4.25609 AU	evening set	-4345 Apr 07 j 20:11		
direct	-4351 Jun 10 j 06:58	9° m 46'31	-	5 · · ·	,j		
evening set	-4351 Oct 13 j 08:42	28° m) 04'52		conjunction	-4345 Apr 21 j 14:54	25°) (41'28	0°-55'-7
	-4351 Oct 21 j 16:45	0∘ ত		minimum elong	-4345 Apr 21 j 14:58	25°) √41'30	0°55'09
				max. Earth dist.	-4345 Apr 22 j 23:51		6.17125 AU
conjunction	-4351 Oct 25 j 22:19	0° £ 58'42	0°49'29	morning rise	-4345 May 05 j 09:27		
minimum elong	-4351 Oct 25 j 22:22	0° £ 58'44	0°49'30		-4345 May 10 j 16:05	0° Υ	
max. Earth dist.	-4351 Oct 24 j 20:35	0° £ 43'50	6.20354 AU	retrograde	-4345 Sep 08 j 04:43	17° Υ 24'05	00.511.25
morning rise	-4351 Nov 07 j 12:17	3° £ 52'59		opposition	-4345 Nov 06 j 12:54	12° Υ 22'25	0°-51'-26
retrograde	-4350 Mar 14 j 10:34	22° £ 37'29	09/11/10	min. Earth dist.	-4345 Nov 05 j 22:51	12° Y 27'10 7° Y 19'47	4.22472 AU
opposition min. Earth dist.	-4350 May 14 j 13:28 -4350 May 15 j 01:46	17° £ 42'03 17° £ 38'06	0°41'10 4.15029 AU	direct evening set	-4344 Jan 05 j 09:21 -4344 May 12 j 01:39		
direct	-4350 May 15 J 01:46	17° 22 38 06 12° 2 47'57	7.13047 AU	evening set	-4544 May 12 J 01.39	45 T 50 40	
uncet	-4350 Nov 08 j 21:52	0°M		conjunction	-4344 May 25 j 17:39	28° Ƴ 52'31	0°-11'-58
evening set	-4350 Nov 08 j 21:32	1°ML28'18		minimum elong	-4344 May 25 j 17:40	28° Υ 52'32	0°11'55
		- 110-20 10		behind sun begin	-4344 May 25 j 12:03	28° Υ 49'25	
conjunction	-4350 Nov 28 j 00:07	4°M28'43	0°03'48	behind sun end	-4344 May 25 j 23:17	28°Υ55'38	
minimum elong	-4350 Nov 28 j 00:08	4°M28'43	0°03'42	max. Earth dist.	-4344 May 26 j 02:30	28° Y 57'26	6.27614 AU
behind sun begin	-4350 Nov 27 j 16:09	4°M24'02			-4344 May 30 j 18:57	0°8	
behind sun end	-4350 Nov 28 j 08:07	4°M33'24		morning rise	-4344 Jun 08 j 07:50	1° 8 53'34	
max. Earth dist.	-4350 Nov 27 j 18:37	4°M25'30	6.10138 AU		-4344 Aug 14 j 07:47	15° 8	

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4344 in astronomical counting style is the year 4345 BCE in historical counting style. -4344 Sep 04 j 10:57 17°843'54 evening set -4338 Nov 19 j 22:25 6°M21'14 asc. node -4344 Oct 08 j 23:16 19°\(\alpha \) 36'22 retrograde -4344 Dec 04 j 19:36 15°R8 -4338 Dec 02 j 18:06 9°ML22'40 0°-3'-18 conjunction -4338 Dec 02 j 18:06 0°03'25 9°**M**22'40 opposition minimum elong -4344 Dec 07 j 13:48 14°\(\delta 38'00 \) -4338 Dec 02 j 10:05 min. Earth dist. 4.32057 AU behind sun begin 9°M17'57 direct -4343 Feb 06 j 16:17 9°**8**34'48 behind sun end -4338 Dec 03 j 02:07 9°**M**27′23 -4343 Apr 10 j 08:59 15°8 max. Earth dist. -4338 Dec 02 j 16:46 9°M21'55 6.08779 AU evening set -4343 Jun 14 j 15:38 27°**8**43'57 morning rise -4338 Dec 15 j 16:02 12°M25'30 -4343 Jun 24 j 23:58 $0^{\circ}\Pi$ -4338 Dec 26 j 17:37 15°M max. Earth dist. -4343 Jun 27 j 10:53 0°**Ⅲ**32'24 6.35589 AU -4337 Mar 18 j 07:28 0°×7 retrograde -4337 Apr 25 j 03:18 2°**х** 10′17 -4343 Jun 28 j 00:17 0°**Ц**39'46 0°33'36 -4337 Jun 01 j 22:52 conjunction 30°RML minimum elong -4343 Jun 28 j 00:14 0°**Ⅲ**39'45 0°33'47 opposition -4337 Jun 24 j 20:45 27° M 10'30 0°-42'-44 morning rise -4343 Jul 11 j 05:33 3°**I**I33'54 min. Earth dist. -4337 Jun 24 j 13:02 27°ML13'02 4.04918 AU retrograde -4343 Nov 08 j 21:44 20°**Д**43'56 direct -4337 Aug 22 j 20:31 22°M17'30 opposition -4342 Jan 07 j 20:48 15°**Ⅱ**49'41 1°16'45 -4337 Nov 02 j 23:13 0°**∡**¹ min. Earth dist. -4342 Jan 08 j 12:18 15°**Ⅱ**44'38 4.37931 AU evening set -4337 Dec 24 j 21:05 11° ₹23'19 direct -4342 Mar 11 j 00:03 10°**II**46'23 evening set -4342 Jul 16 j 19:39 28°**Ⅲ**43'02 conjunction -4336 Jan 06 j 23:59 14° ₹30'41 -4342 Jul 22 j 16:25 0ಂತಾ minimum elong -4336 Jan 06 j 23:55 14° ₹30'39 0°50'45 6.38813 AU max. Earth dist. -4342 Jul 28 j 09:48 1°9515'29 max. Earth dist. -4336 Jan 07 j 23:29 14° ₹ 44'42 6.02404 AU morning rise -4336 Jan 20 i 06:13 17° ₹39'52 conjunction -4342 Jul 29 i 18:37 1°533'32 1°08'33 -4336 Mar 17 i 00:15 0°정 minimum elong -4342 Jul 29 i 18:34 1°533'30 1°08'45 retrograde -4336 May 31 j 07:36 7°る55'34 morning rise -4342 Aug 11 j 14:28 4°9522'27 -4336 Jul 30 j 13:10 2°**ප**52'15 -1°-43'-1 opposition -4342 Dec 09 j 23:35 21°524'57 min. Earth dist. -4336 Jul 29 j 13:52 3°る00'05 4.01594 AU retrograde opposition -4341 Feb 08 j 09:03 16°532'58 1°55'00 -4336 Aug 22 j 10:41 30°R ✓ -4341 Feb 09 j 12:01 16°524'20 4.38445 AU -4336 Sep 26 j 15:34 27° ₹ 58'02 min. Earth dist. direct -4341 Apr 12 j 00:51 11°531'20 -4336 Oct 31 j 16:47 0°♂ direct -4341 Aug 17 j 01:39 29°\$26'12 -4335 Jan 29 j 09:37 17°る15'21 evening set evening set -4341 Aug 19 j 14:55 $0^{\circ}\Omega$ -4341 Aug 28 j 00:34 -4335 Feb 11 j 19:49 20°₹25'52 -1°-19'-35 max. Earth dist. 1°**Ω**51'50 6.36450 AU conjunction -4335 Feb 11 j 19:47 20°₹25'51 1°19'48 minimum elong -4341 Aug 29 j 17:06 2°Ω14'22 1°24'01 -4335 Feb 13 j 13:04 20°**궁**50'19 conjunction max. Earth dist. 6.02306 AU -4341 Aug 29 j 17:06 2°**Ω**14'21 -4335 Feb 25 j 09:13 23°る37'59 minimum elong 1°24'12 morning rise -4341 Sep 11 j 06:02 5°**Ω**01'24 -4335 Mar 25 j 06:35 morning rise 0°**≈** -4341 Oct 29 j 19:47 15°**Ω** -4335 Jul 06 j 20:28 13°≈46'28 retrograde retrograde -4340 Jan 10 j 19:31 22°**Ω**21'31 min. Earth dist. -4335 Sep 03 j 08:28 8°≈51'12 4.04891 AU -4340 Mar 11 j 16:57 17°Ω29'58 2°01'15 opposition -4335 Sep 04 j 13:18 8°**≈**41'21 -2°-4'-11 opposition min. Earth dist. -4340 Mar 12 j 22:03 17°Ω20'43 4.33436 AU direct -4335 Nov 01 j 15:56 3°≈44'09 -4340 Apr 01 j 07:50 15°RΩ -4334 Jan 30 j 20:09 15°≈ -4340 May 13 j 02:24 12°**Ω**30'53 -4334 Mar 07 j 11:24 22°≈55'39 direct evening set -4340 Jun 23 j 13:40 15°**Ω** -4340 Sep 13 j 13:50 -4334 Mar 21 j 03:47 26°≈05'59 -1°-18'-40 conjunction -4340 Sep 16 j 03:21 -4334 Mar 21 j 03:49 26°≈06'00 1°18'48 evening set 0° m 34'29 minimum elong max. Earth dist. -4340 Sep 27 i 01:54 3° m 02'48 6.29142 AU max. Earth dist. -4334 Mar 23 i 01:03 26°≈32'16 6.08634 AU morning rise -4334 Apr 03 j 21:46 29°≈17'00 conjunction -4340 Sep 28 i 15:34 3° m 24'09 1°15'33 -4334 Apr 07 i 00:40 0°**∀** -4340 Sep 28 i 15:36 3° m 24'10 1°15'38 retrograde -4334 Aug 10 j 17:29 18°\(\frac{1}{2}\)41'48 minimum elong -4340 Oct 11 j 02:47 6° m 13'30 -4334 Oct 08 j 02:16 13°\dagger445'54 4.13559 AU morning rise min Earth dist -4339 Feb 12 j 05:55 24° mp 12'42 -4334 Oct 09 j 02:44 13° ★ 37'33 -1°-39'-26 retrograde opposition -4339 Apr 14 j 08:38 19° mp 19'48 1°31'46 -4334 Dec 06 j 22:45 8° \(\)37'03 opposition direct -4339 Apr 15 j 09:04 19° **m** 12'01 -4333 Apr 12 j 21:30 27°**米**27'55 min. Earth dist. 4.24229 AU evening set direct -4339 Jun 14 j 23:05 14° m 23'34 -4333 Apr 24 j 02:38 $0^{\circ}\Upsilon$ -4339 Oct 05 j 18:36 0∘∙თ 0°**Υ**34'44 0°-49'-46 evening set -4339 Oct 17 j 20:07 2°**₽**44'44 conjunction -4333 Apr 26 j 15:58 -4333 Apr 26 j 16:02 max. Earth dist. -4339 Oct 29 j 09:21 5°**£**25'02 6.18864 AU minimum elong 0°**Υ**34'46 0°49'47 -4333 Apr 27 j 21:26 0°**Υ**51'25 6.18920 AU max. Earth dist. -4339 Oct 30 j 10:11 5°**2**39'25 0°43'53 -4333 May 10 j 10:19 3°**Y**41'14 conjunction morning rise -4339 Oct 30 j 10:14 -4333 Sep 12 j 16:12 22°**Υ**07'03 minimum elong 5°**£**39'27 0°43'52 retrograde -4333 Nov 11 j 01:49 17°**Υ**05'48 morning rise -4339 Nov 12 j 01:04 8°**£**34'43 opposition 0°-42'-18 -4338 Mar 19 j 09:10 27°**£**26'58 min. Earth dist. -4333 Nov 10 j 13:41 17°**Υ**09'54 4.24341 AU retrograde opposition -4338 May 19 j 12:24 22°**2**31'04 0°31'24 direct -4332 Jan 10 j 03:42 12°**Y**′02'52 min. Earth dist. -4338 May 19 j 21:41 22°**2**28'04 4.13532 AU -4332 May 14 j 16:29 0°8 direct -4338 Jul 18 j 18:51 17°**2**37'13 evening set -4332 May 16 j 20:04 0°**8**28'21 -4338 Oct 23 j 00:14 0°M

-4332 May 30 j 11:20 3°\begin{aligned} 3°\begin{aligned} 29'26 0°-5'-31 \end{aligned}

desc. node

-4338 Nov 06 j 19:41

3°M18'37

conjunction

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4332 in astronomical counting style is the year 4333 BCE in historical counting style. -4332 May 30 j 11:21 3°**8**29'26 0°05'26 -4326 May 02 j 17:52 30°R Ω minimum elong -4332 May 30 j 03:23 3°825'02 opposition -4326 May 24 j 12:00 27° **2**20'44 0°21'27 behind sun begin -4332 May 30 j 19:19 3°833'50 min. Earth dist. -4326 May 24 j 19:55 27° **2**18'11 4.11493 AU behind sun end -4326 Jul 23 j 14:08 22°**♀**27'06 max. Earth dist. -4332 May 30 j 18:24 3°**8**33'20 6.29431 AU direct -4332 Jun 13 j 00:13 -4326 Sep 17 j 01:25 27°**♀**06'52 morning rise 6°**8**29'13 desc. node -4332 Jul 16 j 03:39 13°**8**30'41 -4326 Oct 03 j 18:29 asc. node 0°M -4332 Jul 23 j 18:10 15°**8** -4326 Nov 24 j 16:59 11°ML16'50 evening set retrograde -4332 Oct 13 j 05:18 24°**8**04'14 opposition -4332 Dec 11 j 20:27 19°**8**06'55 0°25'16 conjunction -4326 Dec 07 j 13:43 14° ML19'32 0°-10'-16 -4326 Dec 07 j 13:42 14°M 19'31 min. Earth dist. -4332 Dec 11 j 23:43 19°**8**05'51 4.33668 AU minimum elong 0°10'24 -4331 Jan 17 j 11:07 15°R₩ behind sun begin -4326 Dec 07 j 07:17 14° ML 15'44 14°**8**03'09 -4326 Dec 07 j 20:07 14°ML23'18 direct -4331 Feb 11 j 04:37 behind sun end -4326 Dec 07 j 15:41 14°M20'41 -4331 Mar 08 j 06:16 15°**8** max. Earth dist. 6.06970 AU -4331 Jun 09 j 06:06 $0^{\circ}II$ -4326 Dec 10 j 09:57 15°M evening set -4331 Jun 19 j 03:07 2°II08'00 morning rise -4326 Dec 20 j 12:59 17°M23'43 -4325 Feb 17 j 05:24 0°**∡**¹ conjunction -4331 Jul 02 j 10:15 5°**II**02'42 0°39'12 retrograde -4325 Apr 30 j 08:50 7°**х¹**16'55 2°**х** 16′35 minimum elong -4331 Jul 02 j 10:12 5°**Ⅲ**02'41 0°39'23 opposition -4325 Jun 30 j 00:58 0°-52'-43 2°**∡**°20′18 max. Earth dist. -4331 Jul 01 j 16:08 4°**Ⅱ**52'46 6.36845 AU min. Earth dist. -4325 Jun 29 j 13:41 4.03549 AU morning rise -4331 Jul 15 j 14:17 7°**Ⅱ**55'47 -4325 Jul 18 j 00:17 30°RM retrograde -4331 Nov 13 j 02:39 25°**Ⅲ**01'41 direct -4325 Aug 27 j 19:10 27° M23'36 opposition -4330 Jan 12 i 03:06 20° **1**07'46 1°23'26 -4325 Oct 06 i 22:55 0°**∡**¹ min. Earth dist. -4330 Jan 12 j 21:32 20°**Ⅱ**01'47 4.38755 AU evening set -4325 Dec 29 j 23:40 16° ₹33'44 direct -4330 Mar 15 i 10:35 15°**Ⅱ**04'32 -4330 Jul 07 j 05:31 conjunction -4324 Jan 12 i 03:40 19° ₹ 41'58 0°-56'-7 0ಂತಾ -4330 Jul 21 j 01:47 2°958'54 -4324 Jan 12 j 03:36 19° **₹** 41'55 0°56'20 minimum elong evening set max. Earth dist. -4324 Jan 13 j 06:51 19° ₹ 58'11 6.01576 AU -4330 Aug 02 j 23:41 5°9548'46 1°11'53 -4324 Jan 25 j 11:04 22° ₹ 52'00 conjunction morning rise -4330 Aug 02 j 23:38 -4324 Feb 25 j 14:46 5°5948'44 1°12'05 0°る minimum elong -4330 Aug 01 j 13:36 -4324 Jun 05 j 14:45 13°る10'37 max. Earth dist. 5°€30'01 6.39116 AU retrograde -4330 Aug 15 j 18:10 8°937'03 -4324 Aug 04 j 18:11 morning rise opposition 8°**る**06'49 -1°-48'-47 -4330 Dec 14 j 03:14 25°539'41 -4324 Aug 03 j 17:08 8°정15'16 4.01408 AU min. Earth dist. retrograde -4329 Feb 12 j 15:52 20°547'50 1°57'47 -4324 Oct 01 j 20:00 opposition direct 3°**る**12'14 -4329 Feb 13 j 19:28 20°539'01 4.38221 AU -4323 Feb 03 j 16:35 22°る30'23 min. Earth dist. evening set -4329 Apr 16 j 07:23 15°5546'26 direct -4329 Aug 04 j 05:44 -4323 Feb 17 j 03:54 25° ₹ 41'10 -1°-21'-21 0 $^{\circ}\Omega$ conjunction -4323 Feb 17 j 03:53 25°정41'09 1°21'34 evening set -4329 Aug 21 j 05:53 3°**Ω**41'38 minimum elong max. Earth dist. -4329 Sep 01 j 02:09 $6^{\circ}\Omega 06'09$ 6.35693 AU max. Earth dist. -4323 Feb 19 j 01:01 26°**정**07'49 6.02753 AU morning rise -4323 Mar 02 j 18:04 28°중53'22 conjunction -4329 Sep 02 j 20:29 6°Ω29'45 1°24'17 -4323 Mar 07 j 12:12 -4329 Sep 02 j 20:29 6°**Ω**29'45 1°24'27 -4323 May 21 j 20:05 15°≈ minimum elong -4329 Sep 15 j 08:58 9°**Ω**16'53 -4323 Jul 11 j 23:26 18°≈57'31 morning rise retrograde -4329 Oct 11 j 22:07 15°**Ω** -4323 Sep 01 j 06:17 15°R≈ -4328 Jan 15 j 06:20 $26^{\circ}\Omega$ 41'25 min. Earth dist. -4323 Sep 08 j 09:12 14°≈02'16 4.05907 AU retrograde -4328 Mar 16 j 03:39 21° **Ω** 49'48 1°59'20 -4323 Sep 09 j 14:25 13°≈52'18 opposition opposition -4323 Nov 06 j 18:12 min. Earth dist. -4328 Mar 17 j 10:17 $21^{\circ}\Omega$ 40'04 4.32178 AU direct 8°≈54'38 direct -4328 May 17 j 12:30 16° Ω51'00 -4322 Jan 09 i 06:04 15°≈ -4328 Aug 28 j 20:19 0°m evening set -4322 Mar 12 j 17:45 28°≈03'23 evening set -4328 Sep 20 j 08:48 4° m 57'30 -4322 Mar 21 j 03:51 0°**∀** max. Earth dist. -4328 Oct 01 j 07:24 7° m 26'24 6.27480 AU -4322 Mar 26 i 10:30 1°¥13'16 -1°-16'00 conjunction -4328 Oct 02 j 21:08 7° m 47'52 1°12'31 minimum elong -4322 Mar 26 j 10:33 1°**¥**13'18 1°16'08 conjunction max. Earth dist. -4328 Oct 02 j 21:11 7° **m** 47'53 1°12'36 -4322 Mar 28 j 05:48 1°**)** 38'18 6.10076 AU minimum elong morning rise -4328 Oct 15 j 08:39 10° m 38'01 morning rise -4322 Apr 09 j 04:58 4°**)**€23'46 retrograde -4327 Feb 16 j 21:37 28° Mp 45'22 retrograde -4322 Aug 15 j 11:21 23° **∺** 39'48 -4322 Oct 13 j 21:29 18°**¥** 35'48 -1°-32'-45 opposition -4327 Apr 19 j 01:21 23° Mp 52'08 1°25'09 opposition min. Earth dist. -4327 Apr 19 j 23:44 23° Mp 45'00 4.22272 AU min. Earth dist. -4322 Oct 12 j 22:01 18°¥43'48 4.15237 AU -4327 Jun 19 j 10:18 18° m 56'15 -4322 Dec 11 j 21:16 13° ¥ 34'52 direct direct $0^{\circ}\Upsilon$ -4327 Sep 19 j 00:15 0∘ଫ -4321 Apr 07 j 08:37 -4327 Oct 22 j 06:43 -4321 Apr 17 j 22:40 2°**Y**21'21 evening set 7°**₽**22'21 evening set conjunction -4327 Nov 03 j 21:28 10°**£**18'12 0°38'05 conjunction -4321 May 01 j 17:07 5°**Y**27′23 0°-44'-3 minimum elong -4327 Nov 03 j 21:31 10°**£**18'14 0°38'02 minimum elong -4321 May 01 j 17:10 5°**Y**27'25 0°44'03 max. Earth dist. -4327 Nov 02 j 23:30 10°**♀**05'25 6.16789 AU max. Earth dist. -4321 May 02 j 20:39 5°**Y**42'55 6.20701 AU morning rise -4327 Nov 16 j 13:12 13°**△**14'47 morning rise -4321 May 15 j 10:50 8°**Y**32'52 -4326 Feb 13 j 11:24 -4321 Sep 17 j 05:19 26°**Υ**49'52 retrograde

-4321 Nov 15 j 15:07 21°**Υ**49'11 0°-32'-50

-4326 Mar 24 j 11:36

2°M17'07

opposition

retrograde

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4321 in astronomical counting style is the year 4322 BCE in historical counting style. -4321 Nov 15 j 05:20 21°**Υ**52'29 4.26036 AU min. Earth dist. direct -4315 Jun 24 j 05:06 23° m 42'49 -4320 Jan 14 j 21:52 16°**Υ**46'07 -4315 Aug 29 j 14:20 direct 0∘⊽ -4320 Apr 27 j 18:04 0°8 -4315 Oct 26 j 22:00 12°**2**12'38 evening set -4320 May 21 j 14:51 5°807'28 evening set asc. node -4320 May 25 j 10:28 conjunction -4315 Nov 08 j 13:33 15° **2**09'29 0°31'46 5°**8**57'53 -4315 Nov 08 j 13:35 15°**£**09'31 minimum elong 0°31'43 8°807'33 0°01'11 -4320 Jun 04 j 05:06 -4315 Nov 07 j 18:54 14°**♀**58'36 conjunction max. Earth dist. 6.15191 AU -4320 Jun 04 j 05:04 -4315 Nov 21 j 06:13 18°**♀**07'10 minimum elong 8°**8**07'32 0°01'18 morning rise -4320 Jun 03 j 20:48 behind sun begin 8°**8**02'59 -4314 Jan 16 j 03:06 0°M behind sun end -4320 Jun 04 j 13:21 8°**8**12'05 retrograde -4314 Mar 29 j 14:57 7° M $_{1}7'30$ max. Earth dist. -4320 Jun 04 j 07:31 8°**8**08'50 6.30899 AU opposition -4314 May 29 j 15:08 2°M20'37 0°10'58 -4320 Jun 17 j 16:58 11°**8**06'17 -4314 May 29 j 19:25 morning rise min. Earth dist. 2°M19'13 4.10130 AU -4314 Jun 17 j 12:15 30°R ₽ -4320 Jul 05 j 17:32 15°8 retrograde -4320 Oct 17 j 13:32 28°**8**35'20 desc. node -4314 Jul 27 j 06:06 27°**2**27'24 opposition direct -4314 Jul 28 j 11:13 27°**£**27'16 min. Earth dist. -4320 Dec 16 j 12:06 23°**8**36'40 4.34818 AU -4314 Sep 06 j 16:52 direct -4319 Feb 15 j 18:49 18°**8**34'46 -4314 Nov 23 j 22:06 15°M -4319 May 23 j 03:32 $0^{\circ}\Pi$ evening set -4314 Nov 29 j 14:28 16°M20'04 evening set -4319 Jun 23 j 16:20 6°**Ⅲ**37'09 conjunction -4314 Dec 12 j 12:06 19°M23'37 0°-17'-19 conjunction -4319 Jul 06 j 22:15 9°**I**31'01 0°44'45 minimum elong -4314 Dec 12 j 12:04 19°M23'36 0°17'30 minimum elong -4319 Jul 06 i 22:12 9°**Ⅱ**30′59 0°44'56 max. Earth dist. -4314 Dec 12 j 17:55 19°M27'04 6.05974 AU max. Earth dist. -4319 Jul 06 i 02:17 9°**Ⅱ**20′04 6.37592 AU morning rise -4314 Dec 25 i 12:30 22° M28'44 morning rise -4319 Jul 20 і 00:44 12°**Д**23'12 -4313 Jan 27 i 14:52 0°**√** retrograde -4319 Nov 17 j 09:40 29°**Ⅲ**26'55 retrograde -4313 May 05 j 15:09 12°**尽** 26'58 -4318 Jan 16 j 12:21 24°**Д**33'28 1°29'57 -4313 Jul 05 j 06:06 7°**∡**¹26′01 -1°-2'-23 opposition opposition -4318 Jan 17 j 08:19 24°**Д**27'00 4.39072 AU min. Earth dist. -4313 Jul 04 j 16:19 7°**∡**730'35 4.03031 AU min. Earth dist. -4318 Mar 19 j 21:52 19°**Д**30'28 -4313 Sep 01 j 21:58 direct direct 2° 🗷 32'53 -4318 Jun 20 j 00:05 -4312 Jan 04 j 02:20 21° ₹ 44'08 000 evening set -4318 Jul 25 j 11:31 evening set 7°9524'18 -4318 Aug 05 j 18:35 -4312 Jan 17 j 07:26 24° ₹ 52'48 -1°-1'-16 max. Earth dist. 9°**9**53'03 6.38955 AU conjunction -4312 Jan 17 j 07:23 24° ₹ 52'46 1°01'28 minimum elong -4318 Aug 07 j 08:04 10°5513'41 1°14'58 -4312 Jan 18 j 15:12 25° ₹ 11'44 6.01577 AU conjunction max. Earth dist. -4318 Aug 07 j 08:01 10°5513'40 -4312 Jan 30 j 15:45 28° **₹** 03'13 1°15'10 minimum elong morning rise -4318 Aug 20 j 01:38 13°501'37 -4312 Feb 07 j 22:33 0°る morning rise -4318 Dec 10 j 15:01 -4312 Jun 10 j 19:44 18°る20'58 $0^{\circ}\Omega$ retrograde -4318 Dec 18 j 14:22 0°Ω06'04 -4312 Aug 09 j 20:45 13°♂16'50 -1°-53'-34 retrograde opposition -4318 Dec 26 j 13:51 30°RS min. Earth dist. -4312 Aug 08 j 18:36 13°**궁**25'39 4.01957 AU opposition -4317 Feb 17 j 03:40 25°5014'24 2°00'06 direct -4312 Oct 06 j 21:54 8°**る**21'51 min. Earth dist. -4317 Feb 18 j 08:58 25°\$05'02 4.37611 AU evening set -4311 Feb 08 j 21:14 27°♂38'25 direct -4317 Apr 20 j 19:56 20°513'18 -4311 Feb 18 j 21:59 -4317 Jul 17 j 17:39 $0^{\circ}\Omega$ -4317 Aug 25 j 14:20 8°**Ω**09'51 -4311 Feb 22 j 09:13 0°≈49'02 -1°-22'-28 evening set conjunction max. Earth dist. -4317 Sep 05 j 10:45 10° Ω34'48 -4311 Feb 22 j 09:12 0°≈49'02 1°22'39 6.34676 AU minimum elong max. Earth dist. -4311 Feb 24 j 05:49 1°≈15'19 6.03754 AU conjunction $-4317 \text{ Sep } 07 \text{ i } 04:30 \quad 10^{\circ} \Omega 58'08 \quad 1^{\circ} 24'06$ morning rise -4311 Mar 08 i 00:15 4°≈01'04 -4317 Sep 07 i 04:31 10° Ω58'08 -4311 Apr 27 i 08:40 15°≈ minimum elong 1°24'15 -4317 Sep 19 i 16:24 13° Ω 45'29 morning rise retrograde -4311 Jul 16 j 19:44 23°≈58'48 -4317 Sep 25 i 07:05 15° Ω min. Earth dist. -4311 Sep 13 j 05:56 19°≈03'34 4.07253 AU -4317 Dec 22 j 05:50 -4311 Sep 14 j 11:14 18°≈53'33 -2°-1'-24 0°m opposition -4316 Jan 19 j 20:34 1° m 15'22 -4311 Oct 17 j 11:33 15°R≈ retrograde -4316 Feb 17 j 16:20 30°RΩ direct -4311 Nov 11 j 16:55 13°≈55'21 -4316 Mar 20 j 19:56 26° **Ω**23'40 1°56'38 -4311 Dec 07 j 03:33 15°≈ opposition min. Earth dist. -4316 Mar 22 j 01:19 26°Ω14'21 4.30828 AU -4310 Mar 04 j 13:37 0°**∀** direct -4316 May 22 j 01:16 21°**Ω**25'20 evening set -4310 Mar 17 j 19:43 3°**₩**00'31 -4316 Aug 10 j 12:48 0° m evening set -4316 Sep 24 j 19:28 9° m 34'44 conjunction -4310 Mar 31 j 13:04 6°**)** 6°**)** 6°10′55 −1°-12′-53 max. Earth dist. -4316 Oct 05 j 19:15 12° m 04'53 6.25920 AU -4310 Mar 31 j 13:08 6°¥09'57 1°13'00 minimum elong -4310 Apr 02 j 07:18 6°**)** 34′15 6.11652 AU max. Earth dist. -4316 Oct 07 j 07:47 12° m 25'45 1°08'53 -4310 Apr 14 j 07:34 9°**)** 19'44 conjunction morning rise -4316 Oct 07 j 07:50 12° m 25'46 minimum elong 1°08'57 retrograde -4310 Aug 20 j 03:15 28° ★27'01 morning rise -4316 Oct 19 j 19:41 15° Mp 16'43 opposition -4310 Oct 18 j 12:16 23° ★23'24 -1°-25'-41 -4315 Jan 03 j 19:01 0∘**⊽** min. Earth dist. -4310 Oct 17 j 15:19 23° **★** 30'32 4.16857 AU retrograde -4315 Feb 21 j 21:15 3°**£**31'53 direct -4310 Dec 16 j 16:56 18° ¥22'04 -4315 Apr 13 j 03:54 30°R M -4309 Mar 21 j 01:24 $0^{\circ}\Upsilon$ -4315 Apr 23 j 23:32 28° m 38'20 1°17'37 -4309 Apr 22 j 19:44 7°**Y**′04'35 opposition evening set

-4315 Apr 24 j 20:53 28° m 31'30 4.20599 AU

min. Earth dist.

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4309 in astronomical counting style is the year 4310 BCE in historical counting style. -4309 May 06 i 13:53 10°**Υ**'09'51 0°-38'-14 -4304 Jul 18 j 08:21 0° m conjunction -4309 May 06 j 13:56 10°**Υ**'09'53 -4304 Sep 29 j 06:54 14° mp 13'57 minimum elong 0°38'14 evening set -4309 May 07 j 13:29 10°**Υ**23'07 6.22236 AU -4304 Oct 10 j 10:17 16° Mp 46'36 max. Earth dist. max. Earth dist. 6.24518 AU -4309 May 20 j 07:10 13°**Υ**14'29 morning rise -4309 Aug 23 j 00:44 -4304 Oct 11 j 19:34 17° m 05'40 1°04'47 0°X conjunction -4309 Sep 21 j 13:50 -4304 Oct 11 j 19:38 17° m 05'42 1°04'49 retrograde 1°**8**23'56 minimum elong -4304 Oct 24 j 07:47 19° **m** 57'23 -4309 Oct 20 j 23:00 30°R**Y** morning rise -4304 Dec 10 j 12:56 opposition -4309 Nov 20 j 01:05 26°**Υ**23'48 0°-23'-30 0∘Σ -4303 Feb 26 j 19:23 min. Earth dist. -4309 Nov 19 j 17:11 26°**Y**26′27 4.27361 AU retrograde 8°**₽**19'38 direct -4308 Jan 19 j 11:39 21°**Y**20'30 opposition -4303 Apr 28 j 22:26 3°**£**25'41 1°09'29 29°**Y**09'45 asc. node -4308 Apr 04 j 19:52 min. Earth dist. -4303 Apr 29 j 17:06 3°**♀**19'43 4.19220 AU -4303 May 28 j 16:15 -4308 Apr 09 j 10:05 0°8 30°R, Mp -4303 Jun 28 j 22:46 evening set -4308 May 26 j 06:45 9°**8**39'11 direct 28° m/30'37 -4303 Jul 29 j 23:55 0∘**⊽** conjunction -4308 Jun 08 j 20:04 12°**8**38'27 0°07'37 evening set -4303 Oct 31 j 13:34 17°**2**02'57 minimum elong 0°07'45 behind sun begin -4308 Jun 08 j 12:40 12°**8**34'23 conjunction -4303 Nov 13 j 05:39 20°**⊆**00'37 0°25'13 behind sun end -4308 Jun 09 j 03:28 12°842'31 minimum elong -4303 Nov 13 j 05:41 20°**೨**00'38 0°25'10 max. Earth dist. -4308 Jun 08 j 18:59 12°**8**37'52 6.31930 AU max. Earth dist. -4303 Nov 12 j 13:47 19°**£**51'19 6.13947 AU -4308 Jun 19 j 12:38 15°8 morning rise -4303 Nov 25 j 23:20 22°**£**59'16 morning rise -4308 Jun 22 j 06:47 15°**8**36'18 -4303 Dec 27 j 04:06 0°M -4308 Sep 07 i 10:42 Π °0 retrograde -4302 Apr 03 j 18:04 12° ML16'21 retrograde -4308 Oct 21 i 21:35 3°**Ⅱ**01'03 opposition -4302 Jun 03 i 17:35 7°**ጤ**18'52 0°00'25 -4308 Dec 05 i 15:11 30°R8 min. Earth dist. -4302 Jun 03 j 19:21 7°**M**₁8′18 4.09101 AU opposition -4308 Dec 20 j 14:36 28°804'51 0°43'10 desc. node -4302 Jun 05 j 23:28 7°**ጤ**01'22 min. Earth dist. -4308 Dec 20 j 23:03 28°802'04 4.35491 AU direct -4302 Aug 02 j 10:07 2°M25'39 -4307 Feb 20 j 06:53 23°801'07 -4302 Nov 06 j 19:05 15°M direct -4307 May 03 j 20:37 0°**Ⅱ** -4302 Dec 04 j 11:11 21°M20'38 evening set -4307 Jun 28 j 04:06 11°**Ⅲ**02'33 evening set max. Earth dist. -4307 Jul 10 j 08:55 13°**II**42'44 -4302 Dec 17 j 09:54 24°M24'55 0°-24'-14 6.37839 AU conjunction -4302 Dec 17 j 09:52 24°M24'54 0°24'24 minimum elong -4307 Jul 11 j 08:44 13°**I**55'49 -4302 Dec 17 j 20:28 24°M31'12 conjunction 0°49'57 max. Earth dist. 6.05256 AU -4307 Jul 11 j 08:41 13°**Ⅲ**55'47 0°50'08 -4302 Dec 30 j 11:17 27°M30'48 minimum elong morning rise -4307 Jul 24 j 10:03 16°**Ⅲ**47'23 -4301 Jan 10 j 02:16 0° **尽** morning rise -4307 Oct 01 j 21:53 0°9 -4301 May 10 j 20:20 17° ₹32'51 retrograde -4307 Nov 21 j 17:57 -4301 Jul 10 j 09:05 12° ₹31'27 -1°-11'-30 retrograde 3°**9**50'41 opposition -4306 Jan 12 j 19:11 30°RⅡ -4301 Jul 09 j 17:31 12° ₹36'37 4.02717 AU min. Earth dist. opposition -4306 Jan 20 j 21:45 28°**Ц**57'34 1°35'53 direct -4301 Sep 06 j 22:14 7° ₹38'14 min. Earth dist. -4306 Jan 21 j 19:17 28°**Д**50'36 4.38921 AU evening set -4300 Jan 09 j 03:49 26° ₹ 50'25 direct -4306 Mar 24 j 08:30 23°**I**54'45 -4306 May 30 j 22:51 conjunction -4300 Jan 22 j 09:43 29°**х** 59'25 -1°-5'-53 -4306 Jul 29 j 21:01 11°549'23 -4300 Jan 22 j 09:40 29° **₹** 59'23 1°06'06 evening set minimum elong max. Earth dist. -4306 Aug 10 j 03:14 14°517'56 -4300 Jan 22 j 10:42 0°る max. Earth dist. -4300 Jan 23 j 18:30 0°**ප**18'56 6.01659 AU -4306 Aug 11 j 16:36 14°538'33 1°17'36 -4300 Feb 04 j 19:10 3°**る**10'13 conjunction morning rise -4300 Jun 15 j 20:19 23°る27'02 minimum elong -4306 Aug 11 i 16:34 14°538'32 1°17'47 retrograde morning rise -4306 Aug 24 i 09:01 17°526'16 opposition -4300 Aug 14 i 21:04 18° ₹322'34 -1°-57'-28 -4306 Oct 28 i 01:18 $0^{\circ}\Omega$ min. Earth dist. -4300 Aug 13 j 17:26 18°る31'56 4.02452 AU retrograde -4306 Dec 23 i 01:32 4°**Ω**33'43 direct -4300 Oct 11 j 21:17 13°る27'12 -4305 Feb 19 i 08:39 30°R 5 -4299 Feb 02 j 07:21 0°≈≈ -4305 Feb 21 j 16:27 29°542'13 2°01'43 -4299 Feb 14 j 00:16 opposition evening set 2°≈42'50 min. Earth dist. -4305 Feb 22 j 21:49 29°532'51 4 36742 AU direct -4305 Apr 25 j 07:34 24°541'32 -4299 Feb 27 j 13:15 conjunction 5°≈53'28 -1°-22'-58 -4305 Jun 26 j 17:24 0 $^{\circ}\Omega$ minimum elong -4299 Feb 27 j 13:15 5°≈53'28 1°23'08 -4305 Aug 29 j 23:58 12°**Ω**40'02 max. Earth dist. -4299 Mar 01 j 11:02 6°≈20'23 6.04613 AU evening set -4305 Sep 09 j 10:34 15°**Ω** morning rise -4299 Mar 13 j 04:49 9°≈05'21 -4305 Sep 09 j 18:59 15°**Ω**04'43 6.33538 AU max. Earth dist. -4299 Apr 08 j 05:38 15°≈ -4299 Jul 21 j 17:26 28°≈57'31 retrograde -4305 Sep 11 j 13:27 15° Ω 28'32 1°23'23 -4299 Sep 18 j 03:09 24°≈01'49 conjunction min. Earth dist. 4.08375 AU -4305 Sep 11 j 13:28 15°Ω28'32 -4299 Sep 19 j 06:50 23°≈52'22 minimum elong 1°23'32 opposition -1°-58'-46 -4299 Nov 16 j 15:28 18°≈53'43 morning rise -4305 Sep 24 j 01:13 $18^{\circ}\Omega$ 16'14 direct -4305 Nov 21 j 04:40 0° m -4298 Feb 14 j 18:10 0°**∀** retrograde -4304 Jan 24 j 14:36 5° m 51'48 evening set -4298 Mar 22 j 21:13 7°**¥**56′22 opposition -4304 Mar 25 j 13:46 0° **m** 59'57 1°53'09 min. Earth dist. -4304 Mar 26 j 18:35 0° m 50'47 4.29495 AU conjunction -4298 Apr 05 j 14:58 11°**米**05'24 -1°-9'-18 -4304 Apr 02 j 11:30 30°RΩ -4298 Apr 05 j 15:02 11°**米**05'27 minimum elong direct -4304 May 26 j 16:43 26°**Ω**02'00 max. Earth dist. -4298 Apr 07 j 07:05 11°¥28'26 6.12942 AU

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4298 in astronomical counting style is the year 4299 BCE in historical counting style. conjunction -4298 Apr 19 i 09:43 14°\ 14'44 $-4293 \text{ Sep } 15 \text{ j } 22:45 \quad 20^{\circ} \Omega 00'35 \quad 1^{\circ} 22'12$ morning rise -4298 Jul 09 j 21:54 $0^{\circ}\Upsilon$ -4293 Sep 15 j 22:46 $20^{\circ}\Omega00'35$ $1^{\circ}22'21$ minimum elong -4293 Sep 28 j 10:03 22°**Ω**48'29 -4298 Aug 24 j 17:07 3°**Y**14'21 morning rise retrograde -4298 Oct 09 j 11:14 30°**R 光** -4293 Oct 31 j 22:22 0° m -4298 Oct 22 j 06:32 28°**升** 17'57 4.18185 AU -4292 Jan 29 j 07:11 min. Earth dist. retrograde 10° m 28'37 -4292 Mar 30 j 07:48 opposition -4298 Oct 23 j 02:33 28° **∺**11'09 -1°-18'-6 opposition 5° Mp 36'34 1°48'58 direct -4298 Dec 21 j 10:15 23° **★** 09'27 min. Earth dist. -4292 Mar 31 j 11:24 5° m 27'48 4.28514 AU 0° Υ -4297 Feb 28 j 22:55 direct -4292 May 31 j 08:06 0° m 39'04 evening set -4297 Apr 27 j 17:11 11°**Υ**49'12 evening set -4292 Oct 03 j 17:57 18° m 52'07 max. Earth dist. -4292 Oct 14 j 22:25 21° m 25'48 6.23479 AU conjunction -4297 May 11 j 11:00 14°**Υ**53'49 0°-32'-9 -4297 May 11 j 11:03 14°**Υ**53'50 -4292 Oct 16 j 06:37 21° m/44'17 minimum elong 0°32'08 conjunction 1°00'19 -4297 May 12 j 06:39 15°**Υ**'04'50 -4292 Oct 16 j 06:40 21° m 44'19 max. Earth dist. 6.23511 AU minimum elong 1°00'20 morning rise -4297 May 25 j 03:44 17° Υ 57'40 morning rise -4292 Oct 28 j 19:24 24° m 36'40 -4297 Jul 23 j 17:45 0° 8 -4292 Nov 21 j 23:59 0∘<u>ଫ</u> retrograde -4297 Sep 26 j 01:47 6°800'37 retrograde -4291 Mar 03 j 16:34 13°**♀**04'41 opposition -4297 Nov 24 j 12:07 1°**8**01'02 0°-13'-58 opposition -4291 May 03 j 20:05 8°**£**10'15 1°00'58 min. Earth dist. -4297 Nov 24 j 07:19 1°**8**02'38 4.28458 AU min. Earth dist. -4291 May 04 j 12:33 8°**₽**04'58 4.18170 AU -4297 Dec 02 j 03:27 30°RY direct -4291 Jul 03 j 16:58 3°**₽**15′26 direct -4296 Jan 24 j 03:44 25° Υ 57'34 evening set -4291 Nov 05 j 03:43 21°**£**49'14 asc. node $-4296 \text{ Feb} \ 13 \text{ j} \ 12:15 \ 26^{\circ} \Upsilon 36'23$ -4296 Mar 17 i 03:35 0°8 conjunction -4291 Nov 17 j 20:39 24°**2**47'38 0°18'37 -4296 May 30 j 23:22 14°814'10 minimum elong -4291 Nov 17 j 20:40 24°**£**47'39 0°18'32 evening set -4296 Jun 03 j 10:55 15°8 max. Earth dist. -4291 Nov 17 i 09:05 24°**2**40'52 6.12999 AU morning rise -4291 Nov 30 j 15:04 27°**£**47'04 -4296 Jun 13 j 11:48 17°**8**12'43 0°14'03 -4291 Dec 10 j 04:55 conjunction o∘m. -4296 Jun 13 j 11:46 17°**8**12'42 -4290 Mar 01 j 23:30 15°M 0°14'11 minimum elong -4296 Jun 13 j 08:00 17°**8**10'38 -4290 Apr 08 j 18:59 17°**M**-09'34 behind sun begin retrograde -4296 Jun 13 j 15:33 17°**8**14'46 -4290 Apr 16 j 21:14 17° ML03'23 behind sun end desc. node -4296 Jun 13 j 07:41 17°**8**10'27 -4290 May 16 j 18:01 15°RM max. Earth dist. 6.32766 AU -4296 Jun 26 j 21:20 20°**8**09'45 -4290 Jun 08 j 17:38 12°ML11'35 0°-9'-55 opposition morning rise -4296 Aug 14 j 00:35 0°**Ⅱ** -4290 Jun 08 j 17:33 12°M 11'36 4.08330 AU min. Earth dist. -4296 Oct 26 j 05:39 -4290 Aug 07 j 06:37 7°**Ⅲ**30′54 direct 7°**M**18′29 retrograde -4296 Dec 25 j 00:22 2°**Д**35'10 0°51'48 -4290 Oct 18 j 18:42 15°M opposition -4296 Dec 25 j 10:01 2°**Д**31'59 4.36034 AU -4290 Dec 09 j 06:01 26°M14'55 min. Earth dist. evening set -4295 Jan 14 j 17:23 30°R**႘** -4295 Feb 24 j 18:35 27°**8**31'29 -4290 Dec 22 j 05:27 29°M 19'47 0°-30'-49 direct conjunction -4295 Apr 07 j 05:40 0°**Ⅱ** minimum elong -4290 Dec 22 j 05:24 29°M 19'46 0°30'59 evening set -4295 Jul 02 j 17:05 15°**Ⅲ**32'09 max. Earth dist. -4290 Dec 22 j 17:32 29°M26'58 6.04711 AU -4290 Dec 25 j 01:04 0°**尽** conjunction -4295 Jul 15 j 20:24 18°**Ц**24'46 0°54'57 morning rise -4289 Jan 04 j 08:02 2°**∡**¹26′24 -4295 Jul 15 j 20:20 18°**Д**24'44 0°55'09 -4289 May 15 j 20:57 22° ₹31'36 minimum elong retrograde -4295 Jul 14 j 18:38 18°**Ⅲ**10'37 -4289 Jul 15 j 09:04 17° ₹29'41 -1°-19'-51 max. Earth dist. 6.38055 AU opposition -4295 Jul 28 j 20:21 21°**Д**15'43 min. Earth dist. -4289 Jul 14 j 15:08 17° ₹ 35'39 4.02466 AU morning rise -4295 Sep 09 j 06:56 -4289 Sep 11 j 19:08 12° ₹36'14 direct retrograde -4295 Nov 26 i 04:16 8°9518'36 -4288 Jan 06 i 08:50 0°정 evening set opposition -4294 Jan 25 i 08:43 3°525'51 1°41'24 -4288 Jan 14 i 02:52 1°る49'25 min. Earth dist. -4294 Jan 26 i 07:52 3°€18'23 4.38827 AU -4288 Jan 27 i 09:53 4°る58'49 -1°-9'-55 -4294 Feb 23 i 17:36 30°RⅡ conjunction direct -4294 Mar 28 j 21:15 28°**Ⅲ**23'20 minimum elong -4288 Jan 27 j 09:50 4°る58'47 1°10'08 -4294 May 01 j 05:11 max. Earth dist. -4288 Jan 28 i 21:33 5°る20'02 6.01718 AU 0ಂತಾ -4288 Feb 09 j 20:05 8°る09'56 evening set -4294 Aug 03 j 07:35 16°518'10 morning rise -4294 Aug 14 j 10:55 18°545'25 6.38013 AU max. Earth dist. -4288 Jun 20 j 20:34 28°₹25'51 retrograde opposition -4288 Aug 19 j 18:36 23°**궁**21'12 -2°00'-25 conjunction -4294 Aug 16 j 02:03 19°507'02 1°19'51 min. Earth dist. -4288 Aug 18 j 15:37 23°₹30'21 4.02828 AU minimum elong -4294 Aug 16 j 02:01 19°507'01 1°20'01 direct -4288 Oct 16 j 19:19 18°중25'26 morning rise -4294 Aug 28 j 17:38 21°554'32 -4287 Jan 15 j 22:40 0°≈ -4294 Oct 06 j 11:03 -4287 Feb 19 j 01:34 0 $^{\circ}\Omega$ evening set 7°≈40'53 retrograde -4294 Dec 27 j 14:20 9°**Ω**04'28 -4287 Mar 04 j 15:21 10°≈51'36 -1°-22'-51 opposition -4293 Feb 26 j 06:34 4°**Ω**12'59 2°02'39 conjunction min. Earth dist. -4293 Feb 27 j 11:41 4°**Ω**03'41 4.36089 AU minimum elong -4287 Mar 04 j 15:22 10°≈51'36 1°23'02 -4293 Apr 06 j 20:40 30° Rூ max. Earth dist. -4287 Mar 06 j 12:37 11°≈18'08 6.05264 AU direct -4293 Apr 29 j 20:25 29°512'38 morning rise -4287 Mar 18 j 07:43 14°≈03'29 -4293 May 22 j 22:38 0 $^{\circ}$ Ω -4287 Mar 22 j 09:14 15°≈ -4293 Aug 24 j 10:35 15°**Ω** -4287 Jun 06 j 05:52 0°**)**€ -4293 Sep 03 j 09:36 17° **Ω**11'57 -4287 Jul 26 j 11:35 3°\ 50'45 evening set retrograde max. Earth dist. -4293 Sep 14 j 06:48 19° Ω38'08 6.32700 AU -4287 Sep 14 j 20:58 30°R≈

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4287 in astronomical counting style is the year 4288 BCE in historical counting style. -4287 Sep 22 j 20:31 28°≈55'16 4.09251 AU conjunction -4281 Sep 20 j 06:45 $24^{\circ}\Omega 30'05$ $1^{\circ}20'34$ min. Earth dist. -4281 Sep 20 j 06:47 24°**Ω**30'06 1°20'41 -4287 Sep 24 j 00:14 28°≈45'48 -1°-55'-22 minimum elong opposition -4287 Nov 21 j 10:03 23°≈46'43 -4281 Oct 02 j 18:02 27° **Ω**18'22 direct morning rise -4286 Jan 25 j 03:25 -4281 Oct 14 j 21:31 0°**)**€ 0° m -4280 Feb 02 j 23:07 15° m 03'51 evening set retrograde opposition -4280 Apr 04 j 00:58 10° Mp 11'31 1°44'10 conjunction -4286 Apr 10 j 15:32 15° **★** 56'47 -1°-5'-16 min. Earth dist. -4280 Apr 05 j 03:17 10° Mp 03'09 4.27262 AU -4286 Apr 10 j 15:36 15°**米** 56'49 5° Mp 14'22 minimum elong 1°05'20 direct -4280 Jun 04 j 21:40 -4280 Oct 08 j 04:21 23° Mp 29'47 max. Earth dist. -4286 Apr 12 j 04:34 16° **∺** 18'00 6.13984 AU evening set morning rise -4286 Apr 24 j 10:27 19°**米** 05'43 $0^{\circ}\Upsilon$ -4286 Jun 15 j 02:08 conjunction -4280 Oct 20 j 17:30 26° Mp 22'42 0°55'28 -4286 Aug 29 j 08:17 7°Υ58'51 -4280 Oct 20 j 17:33 26° m 22'44 retrograde minimum elong 0°55'30 -4286 Oct 27 j 16:17 -4280 Oct 19 j 12:30 26° m 06'00 opposition 2°Υ56'05 -1°-10'-6 max. Earth dist. 6.22068 AU min. Earth dist. -4286 Oct 26 j 22:48 3°**Υ**02'02 4.19276 AU morning rise -4280 Nov 02 j 06:41 29° m 15'55 -4286 Nov 19 j 20:19 30°**₹**₩ -4280 Nov 05 j 11:54 0∘**⊽** direct -4286 Dec 26 j 04:40 27° **€** 54'05 retrograde -4279 Mar 08 j 15:10 17°**♀**51'19 -4285 Jan 31 j 21:59 $0^{\circ}\Upsilon$ opposition -4279 May 08 j 18:13 12°**≏**56'29 0°52'01 evening set -4285 May 02 j 13:52 16°**Y**31'49 min. Earth dist. -4279 May 09 j 09:31 12°**♀**51'35 4.16682 AU 8°**ഫ**02'00 direct -4279 Jul 08 j 11:33 conjunction -4285 May 16 j 07:27 19°**Υ**35'52 0°-25'-54 evening set -4279 Nov 09 j 19:04 26°**2**39'05 minimum elong -4285 May 16 j 07:29 19°**Υ**35'54 0°25'51 max. Earth dist. -4285 May 17 j 01:16 19°**Υ**45'51 6.24594 AU conjunction -4279 Nov 22 j 12:40 29°**2**38'26 0°11'49 morning rise -4285 May 29 j 23:26 22° Υ 38'59 minimum elong -4279 Nov 22 j 12:41 29°**2**38'26 0°11'43 -4285 Jul 03 i 09:54 0°8 behind sun begin -4279 Nov 22 i 06:56 29°**2**35'04 retrograde -4285 Sep 30 j 11:22 10°836'08 behind sun end -4279 Nov 22 j 18:26 29°**£**41'48 -4285 Nov 28 j 22:52 5°**8**37'06 0°-4'-23 max. Earth dist. -4279 Nov 22 j 02:38 29° **△**32'33 6.11562 AU opposition min. Earth dist. -4285 Nov 28 j 18:55 5°**8**38'25 4.29454 AU -4279 Nov 24 j 01:21 o°m. -4285 Dec 24 j 09:05 2°**8**28'55 -4279 Dec 05 j 08:18 2°MJ38'59 asc node morning rise -4278 Feb 01 j 07:08 15°M direct -4284 Jan 28 j 16:56 0°**8**33'34 -4284 May 17 j 23:52 15°**8** -4278 Feb 25 j 01:42 18° ML45'26 desc. node -4284 Jun 04 j 15:55 18°**8**48'19 -4278 Apr 13 j 21:26 22° ML08'58 evening set retrograde -4278 Jun 13 j 19:33 17°ML10'24 0°-20'-25 opposition -4284 Jun 18 j 03:06 21°846'03 0°20'24 conjunction min. Earth dist. -4278 Jun 13 j 16:21 17°ML11'26 4.07073 AU -4284 Jun 18 j 03:04 21°**8**46'02 0°20'32 -4278 Jul 01 j 01:58 15°RML minimum elong -4284 Jun 17 j 19:15 21°**8**41'43 6.33604 AU -4278 Aug 12 j 03:41 12°M17'20 max. Earth dist. direct -4284 Jul 01 j 11:30 24°842'14 -4278 Sep 22 j 10:05 15°M morning rise -4284 Jul 26 j 06:53 0°**Ⅱ** -4278 Dec 08 j 16:45 0°**∡** retrograde -4284 Oct 30 j 15:28 11°**Ц**59'47 evening set -4278 Dec 14 j 03:53 1°×17'16 opposition -4284 Dec 29 j 10:10 7°**I**104'32 1°00'05 min. Earth dist. -4284 Dec 29 j 22:25 7°**Д**00'31 4.36659 AU conjunction -4278 Dec 27 j 04:31 4°**х** 23'02 0°-37'-20 direct -4283 Mar 01 j 08:23 2°**Ⅱ**00'55 minimum elong -4278 Dec 27 j 04:28 4°**҂**23'01 0°37'31 -4283 Jul 07 j 05:10 20°**Д**00'15 max. Earth dist. -4278 Dec 27 j 21:12 4°**∡**32'59 evening set 6.03749 AU max. Earth dist. -4283 Jul 19 j 03:52 22°**Ⅲ**37'09 -4277 Jan 09 j 08:04 7°**∡**³30'31 6.38387 AU morning rise -4277 May 21 j 03:27 27° ₹ 40'18 retrograde -4283 Jul 20 j 07:16 22°**Д**52'12 0°59'37 -4277 Jul 20 j 12:24 22° ₹37'54 -1°-27'-54 conjunction opposition -4283 Jul 20 j 07:12 22°**I**52'10 -4277 Jul 19 j 17:37 22° ₹ 44'10 4.01915 AU minimum elong 0°59'49 min. Earth dist. -4277 Sep 16 j 20:28 17° ₹ 44'14 morning rise -4283 Aug 02 i 05:51 25°**Ⅱ**42'28 direct -4283 Aug 22 i 06:56 0 \circ \odot -4277 Dec 19 j 18:04 0°정 evening set retrograde -4283 Nov 30 i 12:21 12°5544'40 -4276 Jan 19 i 06:33 6°る59'35 -4282 Jan 29 j 19:15 7°952'08 1°46'18 opposition min. Earth dist. -4282 Jan 30 j 18:43 7°**©**44'34 4.38854 AU conjunction -4276 Feb 01 i 14:33 10° ₹ 09'28 -1°-13'-34 direct -4282 Apr 02 j 07:46 2°549'50 minimum elong -4276 Feb 01 j 14:30 10°**ठ**09'27 1°13'46 -4276 Feb 03 j 04:11 10°る31'51 6.01612 AU evening set -4282 Aug 07 j 16:43 20°5044'19 max. Earth dist. max. Earth dist. -4282 Aug 18 j 18:52 23°5511'07 6.37699 AU morning rise -4276 Feb 15 j 01:55 13°る21'05 -4276 May 08 j 06:53 0°≈ conjunction -4282 Aug 20 j 10:06 23°532'51 1°21'37 retrograde -4276 Jun 25 j 23:11 3°**≈**36′04 -4282 Aug 20 j 10:04 23°532'50 1°21'48 -4276 Aug 13 j 18:57 30°R♂ minimum elong -4282 Sep 02 j 00:43 26°520'05 -4276 Aug 24 j 20:00 28°₹31'15 -2°-2'-34 morning rise opposition -4282 Sep 18 j 22:28 min. Earth dist. -4276 Aug 23 j 15:17 28°정41'00 4.03221 AU 0 $^{\circ}\Omega$ -4281 Jan 01 j 02:43 13° **Ω**32'25 -4276 Oct 21 j 19:33 23°**궁**35'06 retrograde direct opposition -4281 Mar 02 j 19:44 8°**Ω**40'59 2°02'53 -4276 Dec 25 j 19:51 0°≈ min. Earth dist. -4281 Mar 04 j 01:50 8°**£**31′24 4.35430 AU evening set -4275 Feb 24 j 07:19 12°≈50'05 direct -4281 May 04 j 09:32 3°**Ω**41′00 -4275 Mar 05 j 14:01 15°≈ -4281 Aug 07 j 15:14 15°**Ω** evening set -4281 Sep 07 j 18:04 21°Ω41'15 conjunction -4275 Mar 09 j 21:55 16°≈00'47 -1°-22'-7 max. Earth dist. -4281 Sep 18 j 14:03 24° Ω07'10 6.31720 AU minimum elong -4275 Mar 09 j 21:56 16°≈00'48 1°22'17

max. Earth dist.

-4275 Mar 11 j 19:00 16°≈27'09

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 12

•	nical year style is used: Tl		•	/ /			ige 12
morning rise	-4275 Mar 23 j 14:55	-	in astronomicai cot	min. Earth dist.	-4269 Mar 08 j 10:58		
morning rise	-4275 May 12 j 10:10	19 ≈ 12 32			-4269 May 08 j 16:26	7° Ω 58'39	4.34376 AU
	, ,			direct	, ,		
retrograde	-4275 Jul 31 j 10:01	8°¥53'36	10.511.2	. ,	-4269 Jul 20 j 04:20		
opposition	-4275 Sep 28 j 21:15	3°) 48'47	-1°-51'-2	evening set	-4269 Sep 11 j 22:34		C 20411 ATT
min. Earth dist.	-4275 Sep 27 j 18:35		4.10512 AU	max. Earth dist.	-4269 Sep 22 j 18:56	28° 3(2/18	6.30411 AU
1.	-4275 Oct 30 j 21:20				4260.0 24:11.04	200 0 40150	1010121
direct	-4275 Nov 26 j 10:53	28°≈49'16		conjunction	-4269 Sep 24 j 11:04		1°18'31
	-4275 Dec 23 j 05:09	0° ∀		minimum elong	-4269 Sep 24 j 11:06		1°18'36
evening set	-4274 Apr 02 j 00:41	1/° # 4/'18			-4269 Sep 29 j 14:57	0° m	
				morning rise	-4269 Oct 06 j 22:16	1° Mp 38'47	
conjunction	-4274 Apr 15 j 19:11	20° ₩ 55'31	-1°00'-42	retrograde	-4268 Feb 07 j 14:10	19° m 31'08	
minimum elong	-4274 Apr 15 j 19:15	20°) ₹55'33	1°00'46	opposition	-4268 Apr 08 j 15:29	14° m 38'37	1°38'55
max. Earth dist.	-4274 Apr 17 j 08:12		6.15582 AU	min. Earth dist.	-4268 Apr 09 j 18:18	14° m 30'05	4.25551 AU
morning rise	-4274 Apr 29 j 13:53			direct	-4268 Jun 09 j 09:49	9° ™ 41'50	
	-4274 May 26 j 13:15	0° Υ		evening set	-4268 Oct 12 j 12:43	28° Mp 01'26	
retrograde	-4274 Sep 02 j 22:47	12° Y 47'41			-4268 Oct 21 j 02:31	0∘ ⊽	
opposition	-4274 Nov 01 j 07:29	7° Ƴ 45'22	-1°-1'-33	max. Earth dist.	-4268 Oct 23 j 21:27	0° ჲ 38'42	6.20106 AU
min. Earth dist.	-4274 Oct 31 j 14:33	7° Ƴ 51'07	4.21062 AU				
direct	-4274 Dec 30 j 23:10	2° Y 43'06		conjunction	-4268 Oct 25 j 02:17	0° £ 55'23	0°50'25
evening set	-4273 May 07 j 11:21	21° Y 16'00		minimum elong	-4268 Oct 25 j 02:21	0° £ 55'25	0°50'26
				morning rise	-4268 Nov 06 j 16:22	3° ≏ 49'47	
conjunction	-4273 May 21 j 04:06	24° Y 18'58	0°-19'-30	retrograde	-4267 Mar 13 j 12:07	22° ₽ 34'48	
minimum elong	-4273 May 21 j 04:08	24° Ƴ 18'59	0°19'27	opposition	-4267 May 13 j 15:06	17° ≏ 39'32	0°42'53
max. Earth dist.	-4273 May 21 j 17:41	24° Y 26'33	6.26439 AU	min. Earth dist.	-4267 May 14 j 03:38	17° ≏ 35'31	4.14610 AU
morning rise	-4273 Jun 03 j 19:20	27° Y 20′57		direct	-4267 Jul 13 j 02:27	12° ≏ 45'20	
	-4273 Jun 15 j 21:35	$8^{\circ 0}$			-4267 Nov 08 j 03:22	0° M	
	-4273 Sep 24 j 23:37	15° 8		evening set	-4267 Nov 14 j 10:35	1°M28'11	
retrograde	-4273 Oct 04 j 20:47				•		
-	-4273 Oct 14 j 16:21	15° ₹ 8		conjunction	-4267 Nov 27 j 05:17	4°M28'51	0°05'01
asc. node	-4273 Nov 03 j 22:32	13° 8 42'15		minimum elong	-4267 Nov 27 j 05:17	4°M28'50	0°04'55
opposition	-4273 Dec 03 j 09:16		0°05'04	behind sun begin	-4267 Nov 26 j 21:26	4°M24'14	
min. Earth dist.	-4273 Dec 03 j 08:02		4.31196 AU	behind sun end	-4267 Nov 27 j 13:08	4°M33'27	
direct	-4272 Feb 02 j 09:04	5° 8 07'25		max. Earth dist.	-4267 Nov 26 j 23:32	4°M25'28	6.09586 AU
	-4272 Apr 30 j 07:37	15° 8		morning rise	-4267 Dec 10 j 01:57	7°M30'45	
evening set	-4272 Jun 09 j 05:56			desc. node	-4266 Jan 05 j 20:04	13°M37'05	
844					-4266 Jan 12 j 05:27		
conjunction	-4272 Jun 22 j 16:02	26° 8 14'02	0°26'28	retrograde	-4266 Apr 19 j 04:07		
minimum elong	-4272 Jun 22 j 16:00			opposition	-4266 Jun 18 j 22:27		0°-30'-46
max. Earth dist.	-4272 Jun 22 j 06:26			min. Earth dist.	-4266 Jun 18 j 17:36		
morning rise	-4272 Jul 05 j 22:53			direct	-4266 Aug 17 j 02:22	17°M18'17	
	-4272 Jul 09 j 20:32	0°II			-4266 Nov 21 j 10:07	0° ∡ 7	
retrograde	-4272 Nov 03 j 19:23			evening set	-4266 Dec 19 j 03:54	6° ₹ 23'30	
opposition	-4271 Jan 02 j 17:20		1°07'43	evening sec	.200 Bee 17 J 00.0 .	0 7. 2550	
min. Earth dist.	-4271 Jan 03 j 06:42		4.37821 AU	conjunction	-4265 Jan 01 j 05:37	9° ∡ ³30′21	0°-43'-35
direct	-4271 Mar 05 j 17:51	6° Ⅱ 22'44	1.57021710	minimum elong	-4265 Jan 01 j 05:33	9° × 30'19	0°43'47
evening set	-4271 Jul 11 j 13:24			max. Earth dist.	-4265 Jan 02 j 01:38	9° ∡ ¹42'17	6.02477 AU
max. Earth dist.	-4271 Jul 23 j 07:00		6.39096 AU	morning rise	-4265 Jan 14 j 10:35	12°×38'58	0.024// AC
mun. Darm Ulət.	72/13u1 23 j 07.00	20 11 3231	0.57070 AU	morning 1150	-4265 Apr 12 j 18:26	12 x 38 38	
conjunction	-4271 Jul 24 j 13:57	27°π09'56	1°03'44	retrograde	-4265 May 26 j 10:10	2°る54'05	
minimum elong	-4271 Jul 24 j 13:54		1°03'55	10110grade	-4265 Jul 09 i 04:09		
morning rise	-4271 Aug 06 j 11:19		1 03 33	opposition	-4265 Jul 25 j 17:39	•	-1°-35'-18
morning risc	-4271 Aug 06 j 12:29	0°9		min. Earth dist.	-4265 Jul 24 j 19:36		4.01241 AU
ratragrada					-4265 Sep 21 j 21:35		4.01241 AU
retrograde	-4270 Feb 03 j 02:03		1°50'21	direct	-4265 Nov 29 j 02:34	22 メ ・37 22	
opposition	,				-		
min. Earth dist.	-4270 Feb 04 j 04:18		4.39065 AU	evening set	-4264 Jan 24 j 12:57	12 013 14	
direct	-4270 Apr 06 j 17:26	7°505'41		:	4264 E-L 06 : 22.00	150725126	10 171 20
evening set	-4270 Aug 11 j 21:18		()72(7 433	conjunction	-4264 Feb 06 j 22:00		
max. Earth dist.	-4270 Aug 22 j 20:50	21-2024'52	6.37367 AU	minimum elong	-4264 Feb 06 j 21:57		1°16'50
	4070 4 04:12 ==	2706 4712 5	1922/51	max. Earth dist.	-4264 Feb 08 j 14:21		6.01567 AU
conjunction	-4270 Aug 24 j 13:53		1°22'51	morning rise	-4264 Feb 20 j 10:20		
minimum elong	-4270 Aug 24 j 13:51		1°23'02		-4264 Apr 12 j 07:53	0° ≈	
	-4270 Sep 03 j 12:55	0° Ω		retrograde	-4264 Jul 01 j 04:13	8°≈50'52	20.61.15
morning rise	-4270 Sep 06 j 03:42	0° £ 34'39		opposition	-4264 Aug 29 j 22:59	3°≈45'48	-2°-3'-42
	,			min. Earth dist.	-4264 Aug 28 j 17:48	3°≈55'44	4.03801 AU
retrograde	-4269 Jan 05 j 09:29				-4264 Sep 30 j 14:13	30°Rる	
	-4269 Feb 18 j 17:41		200215	direct	-4264 Oct 27 j 00:23	28° る 49'09	
opposition	-4269 Mar 07 j 04:54	12~ 81 58'20	2°02'24		-4264 Nov 22 j 12:01	0° ≈	

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 13 Attention, astronomical year style is used: The year -4263 in astronomical counting style is the year 4264 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	ne year -4263	in astronomical cou	nting style is the year	4264 BCE in historical of	counting style.	
	-4263 Feb 16 j 08:41	15° ≈		minimum elong	-4258 Aug 28 j 21:54	2° Ω 14'51	1°23'53
evening set	-4263 Mar 01 j 14:53	18° ≈ 02'44		morning rise	-4258 Sep 10 j 11:10	5° Ω 01'57	
					-4258 Oct 29 j 00:14		
conjunction	-4263 Mar 15 j 06:22		-1°-20'-43	retrograde	-4257 Jan 10 j 00:20		
minimum elong	-4263 Mar 15 j 06:24		1°20'51	opposition	-4257 Mar 11 j 20:00		2°01'16
max. Earth dist.	-4263 Mar 17 j 05:20		6.07258 AU	min. Earth dist.	-4257 Mar 13 j 03:13		4.33431 AU
morning rise	-4263 Mar 28 j 23:47	24°≈24'41			-4257 Apr 01 j 09:53		
	-4263 Apr 22 j 18:26	0°) {		direct	-4257 May 13 j 07:13		
retrograde	-4263 Aug 05 j 08:08	13° ¥ 58′01	10 451 47		-4257 Jun 23 j 18:19		
opposition	-4263 Oct 03 j 18:32	8°) 53'22			-4257 Sep 13 j 18:10	0° Т р 0° Тр 34'59	
min. Earth dist. direct	-4263 Oct 02 j 16:14 -4263 Dec 01 j 10:40	9°) €02'21 3°) €53'24	4.12025 AU	evening set max. Earth dist.	-4257 Sep 16 j 08:32 -4257 Sep 27 j 05:21	3°My 02'20	6.28964 AU
evening set	-4262 Apr 07 j 04:25			max. Earth dist.	-4237 Sep 27 J 03.21	3 HJ 02 20	0.28904 AU
evening set	4202 11pi 07 j 04.23	22 /(4/22		conjunction	-4257 Sep 28 j 21:00	3° m 24'48	1°15'53
conjunction	-4262 Apr 20 j 22:49	25°) 54'51	0°-55'-40	minimum elong	-4257 Sep 28 j 21:00		1°15'59
minimum elong	-4262 Apr 20 j 22:54	25°) 54'53	0°55'42	morning rise	-4257 Oct 11 j 08:20	6° Mp 14'15	1 100)
max. Earth dist.	-4262 Apr 22 j 08:02		6.17314 AU	retrograde	-4256 Feb 12 j 09:03	24° m) 13'45	
morning rise	-4262 May 04 j 17:30	29°) €02'11		opposition	-4256 Apr 13 j 11:55	19° m) 20'55	1°32'44
C	-4262 May 09 j 00:25	0° Y		min. Earth dist.	-4256 Apr 14 j 12:21	19° m 13'09	4.23912 AU
retrograde	-4262 Sep 07 j 13:13	17° Y '36'59		direct	-4256 Jun 14 j 01:21	14° m 24'33	
opposition	-4262 Nov 05 j 22:51	12° Y ′35′05	0°-52'-33		-4256 Oct 04 j 19:58	0∘ ⊽	
min. Earth dist.	-4262 Nov 05 j 08:09	12° Y ′40'04	4.22811 AU	evening set	-4256 Oct 17 j 02:39	2° ≏ 47'46	
direct	-4261 Jan 04 j 19:35	7° Y ′32'29					
evening set	-4261 May 12 j 08:36	26° Y ′00′59		conjunction	-4256 Oct 29 j 16:47	5° ≏ 42'39	0°44'46
				minimum elong	-4256 Oct 29 j 16:50	5° ≏ 42'41	0°44'45
conjunction	-4261 May 26 j 00:48	29° Y ′03′00	0°-12'-55	max. Earth dist.	-4256 Oct 28 j 15:24	5° ≏ 27'55	6.18438 AU
minimum elong	-4261 May 26 j 00:49	29° Y ′03′01	0°12'51	morning rise	-4256 Nov 11 j 07:35	8° 亞 38′06	
behind sun begin	-4261 May 25 j 19:51	29° Y ′00′16		retrograde	-4255 Mar 18 j 16:34	27° ≏ 31'32	
behind sun end	-4261 May 26 j 05:47	29° Y °05'45		opposition	-4255 May 18 j 17:28		0°32'57
max. Earth dist.	-4261 May 26 j 12:10	29° Y 09'19	6.28076 AU	min. Earth dist.	-4255 May 19 j 04:20		4.13046 AU
	-4261 May 30 j 07:19	0°8		direct	-4255 Jul 18 j 01:04		
morning rise	-4261 Jun 08 j 14:52	2° 8 03'51		JJ.	-4255 Oct 21 j 20:10	0°M	
1-	-4261 Aug 13 j 14:41	15° 8		desc. node	-4255 Nov 14 j 18:20	5°M24'58 6°M28'17	
asc. node retrograde	-4261 Sep 13 j 07:45 -4261 Oct 09 j 06:06	18° 8 40'41 19° 8 45'20		evening set	-4255 Nov 19 j 06:26	0-1162817	
retrograde	-4261 Dec 06 j 06:16			conjunction	-4255 Dec 02 j 02:03	9°M29'55	0°-2'-13
opposition	-4261 Dec 07 j 20:16		0°14'37	minimum elong	-4255 Dec 02 j 02:02	9°M29'54	0°02'20
min. Earth dist.	-4261 Dec 07 j 20:56			behind sun begin	-4255 Dec 01 j 17:57	9°M25'09	0 02 20
direct	-4260 Feb 06 j 23:50		1.52507 110	behind sun end	-4255 Dec 02 j 10:06	9° ™ 34'40	
	-4260 Apr 08 j 18:51	15° 8		max. Earth dist.	-4255 Dec 01 j 23:49	9° ™ 28'39	6.08293 AU
evening set	-4260 Jun 13 j 21:24	27° 8 50'30		morning rise	-4255 Dec 14 j 23:56	12°M32'55	
•	-4260 Jun 23 j 18:01	Π°		-	-4255 Dec 25 j 12:14	15°M	
					-4254 Mar 16 j 08:19	0° ∡ ¹	
conjunction	-4260 Jun 27 j 06:03	0°Ⅱ46′08	0°32'31	retrograde	-4254 Apr 24 j 09:48	2° ∡ 18'57	
minimum elong	-4260 Jun 27 j 06:00	0° Ⅱ 46′07	0°32'42		-4254 Jun 02 j 14:23	30°RM	
max. Earth dist.	-4260 Jun 26 j 15:27	0°Ⅱ38′08	6.36130 AU	opposition	-4254 Jun 24 j 03:51	27° ™ 19'18	0°-41'-11
morning rise	-4260 Jul 10 j 11:42	3° Ⅱ 40′10		min. Earth dist.	-4254 Jun 23 j 19:11		4.04515 AU
retrograde	-4260 Nov 08 j 04:06	20° Ⅱ 48'41		direct	-4254 Aug 22 j 02:38		
opposition	-4259 Jan 07 j 02:55	15° Ⅱ 54'17	1°15'14		-4254 Nov 01 j 11:43	0° ∡	
min. Earth dist.	-4259 Jan 07 j 19:17	15° Ⅱ 48'56	4.38436 AU	evening set	-4254 Dec 24 j 05:55	11° ∡ ′33'37	
direct	-4259 Mar 10 j 07:30	10° ∏ 50′50			4252 I 06:00.00	140 741100	00 401 27
evening set	-4259 Jul 16 j 00:14	28° ∏ 45'44		conjunction	-4253 Jan 06 j 08:36		0°-49'-37
	-4259 Jul 21 j 16:16	0ං ව		minimum elong	-4253 Jan 06 j 08:33		0°49'49
agnismation	4250 Iul 20 : 22:41	196326112	1007142	max. Earth dist.	-4253 Jan 07 j 08:25		6.02121 AU
conjunction minimum elong	-4259 Jul 28 j 23:41 -4259 Jul 28 j 23:38	1° © 36'13 1° © 36'11	1°07'42 1°07'53	morning rise	-4253 Jan 19 j 14:36 -4253 Mar 16 j 09:23	0°る。	
max. Earth dist.	-4259 Jul 27 j 15:35	1°93611	6.39240 AU	retrograde	-4253 Mar 16 J 09.23 -4253 May 31 j 16:03	8° る 06'39	
morning rise	-4259 Aug 10 j 19:40	4°925'04	J.J/240/110	opposition	-4253 Jul 30 j 21:59	3°る039	-1°-41'-55
retrograde	-4259 Dec 09 j 02:20	21°526'14		min. Earth dist.	-4253 Jul 29 j 22:31	3°る11'11	4.01442 AU
opposition	-4258 Feb 07 j 13:00	16°934'10	1°54'04		-4253 Aug 24 j 13:29	30°R. ✓	
min. Earth dist.	-4258 Feb 08 j 15:42	16°525'37	4.38759 AU	direct	-4253 Sep 27 j 01:40	28° ₹ 09'06	
direct	-4258 Apr 11 j 04:09	11° ©3 2'21			-4253 Oct 30 j 09:23	0°ਰ	
evening set	-4258 Aug 16 j 06:20	29° © 26'41		evening set	-4252 Jan 29 j 18:00	17° ♂ 26′18	
-	-4258 Aug 18 j 18:45	$0^{\circ}\Omega$		-	, , , , , , , , , , , , , , , , , , ,		
max. Earth dist.	-4258 Aug 27 j 03:32	1° Ω 51′18	6.36616 AU	conjunction	-4252 Feb 12 j 04:05		-1°-19'-5
				minimum elong	-4252 Feb 12 j 04:03	20° る 36'44	1°19'17
conjunction	-4258 Aug 28 j 21:55	2° Ω 14'51	1°23'42	max. Earth dist.	-4252 Feb 13 j 23:40	21° る 02'34	6.02287 AU

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 14 Attention, astronomical year style is used: The year -4252 in astronomical counting style is the year 4253 BCE in historical counting style.

Attention, astronom	ical year style is used: The	he year -4252	in astronomical co	unting style is the year	4253 BCE in historical of	counting style	
morning rise	-4252 Feb 25 j 17:11	23° る 48'44		direct	-4246 Apr 15 j 16:46	15° © 59'45	
	-4252 Mar 23 j 18:53	0° ≈			-4246 Aug 02 j 12:55	$0^{\circ}\Omega$	
retrograde	-4252 Jul 06 j 05:30	13° ≈ 57′03		evening set	-4246 Aug 20 j 15:51	3° Ω 55'55	
opposition	-4252 Sep 03 j 22:31	8° ≈ 51'53	-2°-3'-50	max. Earth dist.	-4246 Aug 31 j 13:24	6° Ω 21′07	6.35581 AU
min. Earth dist.	-4252 Sep 02 j 17:09	9° ≈ 01'53	4.04973 AU				
direct	-4252 Nov 01 j 00:51	3° ≈ 54'47		conjunction	-4246 Sep 02 j 06:54	6° Ω 44'14	
	-4251 Jan 29 j 09:05			minimum elong	-4246 Sep 02 j 06:54		1°24'11
evening set	-4251 Mar 06 j 18:43	23° ≈ 05′08		morning rise	-4246 Sep 14 j 19:28	9° Ω 31'30	
					-4246 Oct 10 j 04:19		
conjunction	-4251 Mar 20 j 10:39		-1°-18'-45	retrograde	-4245 Jan 14 j 14:42		
minimum elong	-4251 Mar 20 j 10:42		1°18'53	opposition	-4245 Mar 16 j 12:27		1°59'19
max. Earth dist.	-4251 Mar 22 j 07:12	26° ≈ 41′06	6.08746 AU	min. Earth dist.	-4245 Mar 17 j 18:10		4.32152 AU
morning rise	-4251 Apr 03 j 04:38	29° ≈ 26′09		direct			
	-4251 Apr 05 j 15:35	0° ∀			-4245 Aug 28 j 02:23	0° m	
retrograde	-4251 Aug 10 j 00:35	18° ¥ 50′56		evening set	-4245 Sep 20 j 19:39	5° Mp 12'45	
min. Earth dist.	-4251 Oct 07 j 10:36	13° ¥ 55′04	4.13658 AU	max. Earth dist.	-4245 Oct 01 j 17:51	7° m 41'25	6.27550 AU
opposition	-4251 Oct 08 j 11:37		-1°-39'-59				
direct	-4251 Dec 06 j 07:15	8°) 46′05		conjunction	-4245 Oct 03 j 07:58	8° Mp 03'06	1°12'45
evening set	-4250 Apr 12 j 03:39			minimum elong	-4245 Oct 03 j 08:00	8° mp 03'08	1°12'50
	-4250 Apr 22 j 18:44	0 ° $\mathbf{\Upsilon}$		morning rise	-4245 Oct 15 j 19:34	-	
				retrograde	-4244 Feb 17 j 08:06	-	
conjunction	-4250 Apr 25 j 22:13	0° Y 42'45		opposition	-4244 Apr 18 j 10:05		1°25'50
minimum elong	-4250 Apr 25 j 22:16	0° Ƴ 42'47	0°50'26	min. Earth dist.	-4244 Apr 19 j 09:21		4.22437 AU
max. Earth dist.	-4250 Apr 27 j 05:15	1° Y 00′20	6.18979 AU	direct	-4244 Jun 18 j 20:37		
morning rise	-4250 May 09 j 16:24	3° Ƴ 49'12			-4244 Sep 17 j 06:47	0∘ ⊽	
retrograde	-4250 Sep 12 j 01:03	22° Y 15′35		evening set	-4244 Oct 21 j 17:20	7° ≏ 36'42	
opposition	-4250 Nov 10 j 10:27	17° Ƴ 14'16	0°-43'-32	max. Earth dist.	-4244 Nov 02 j 09:58	10° ≏ 19'33	6.17048 AU
min. Earth dist.	-4250 Nov 09 j 22:19	17° Ƴ 18′22	4.24336 AU				
direct	-4249 Jan 09 j 11:43	12° Ƴ 11'27		conjunction	-4244 Nov 03 j 08:05		0°38'45
	-4249 May 14 j 07:49	9° 8		minimum elong	-4244 Nov 03 j 08:08	10° ≏ 32'27	0°38'43
evening set	-4249 May 17 j 02:28	0° 8 36'38		morning rise	-4244 Nov 15 j 23:41	13° ≏ 28'50	
					-4243 Feb 11 j 00:01	0° M	
conjunction	-4249 May 30 j 17:48	3° 8 37'48	0°-6'-28	retrograde	-4243 Mar 23 j 18:25	2°M29'24	
minimum elong	-4249 May 30 j 17:49	3° 8 37'49	0°06'24		-4243 May 03 j 22:45	30° ₹ Ω	
behind sun begin	-4249 May 30 j 10:02	3° 8 33'31		opposition	-4243 May 23 j 19:42	27° ₽ 33'09	0°22'44
behind sun end	-4249 May 31 j 01:36	3° 8 42'06		min. Earth dist.	-4243 May 24 j 03:02	27° ≏ 30'47	4.11846 AU
max. Earth dist.	-4249 May 31 j 00:07	3° 8 41'17	6.29342 AU	direct	-4243 Jul 22 j 21:30	22° ₽ 39'31	
morning rise	-4249 Jun 13 j 07:05	6° 8 37'46		desc. node	-4243 Sep 23 j 20:20	28° ≏ 31'46	
	-4249 Jul 23 j 06:58	15° 8			-4243 Oct 02 j 02:10	0° M	
asc. node	-4249 Jul 24 j 19:54	15° 8 17'41		evening set	-4243 Nov 24 j 02:24	11°ML28'17	
retrograde	-4249 Oct 13 j 13:46	24° 8 13'47					
opposition	-4249 Dec 12 j 05:04	19° 8 16'22	0°23'49	conjunction	-4243 Dec 06 j 22:48	14°MJ30'40	0°-9'-18
min. Earth dist.	-4249 Dec 12 j 08:20	19° 8 15'17	4.33515 AU	minimum elong	-4243 Dec 06 j 22:47	14°M30'40	0°09'27
	-4248 Jan 19 j 23:34	15° ₹ 8		behind sun begin	-4243 Dec 06 j 16:01	14°M26'40	
direct	-4248 Feb 11 j 12:32	14° 8 12'37		behind sun end	-4243 Dec 07 j 05:34	14°M34'39	
	-4248 Mar 05 j 08:05	15° 8		max. Earth dist.	-4243 Dec 07 j 00:08	14°M31'27	6.07378 AU
	-4248 Jun 07 j 18:53	Π °0			-4243 Dec 09 j 00:16	15° M ₊	
evening set	-4248 Jun 18 j 10:22	2° Ⅱ 17'55		morning rise	-4243 Dec 19 j 21:45	17°M34'32	
					-4242 Feb 15 j 16:00	0° ₹ ¹	
conjunction	-4248 Jul 01 j 17:57	5° Ⅱ 12'52	0°38'15	retrograde	-4242 Apr 29 j 14:51	7° ∡ ¹25'34	
minimum elong	-4248 Jul 01 j 17:54	5° Ⅱ 12'51	0°38'25	opposition	-4242 Jun 29 j 07:49	2° ∡ ¹25'18	0°-51'-13
max. Earth dist.	-4248 Jul 01 j 01:20	5° Ⅱ 03'45	6.36657 AU	min. Earth dist.	-4242 Jun 28 j 21:03	2° ҂ 28'51	4.03963 AU
morning rise	-4248 Jul 14 j 22:10	8° Ⅱ 06'09			-4242 Jul 18 j 13:59	30°RM	
retrograde	-4248 Nov 12 j 11:20	25° Ⅱ 13'03		direct	-4242 Aug 27 j 04:07	27°M32'18	
opposition	-4247 Jan 11 j 11:49	20° Ⅱ 19'08	1°22'13		-4242 Oct 05 j 03:08	0° ∡ ¹	
min. Earth dist.	-4247 Jan 12 j 05:42	20° Ⅱ 13'19	4.38551 AU	evening set	-4242 Dec 29 j 06:41	16° ∡ 740'49	
direct	-4247 Mar 14 j 18:15	15° Ⅱ 15'56					
	-4247 Jul 05 j 15:07	0°€		conjunction	-4241 Jan 11 j 10:28	19° ∡ ⁴48'44	0°-55'-13
evening set	-4247 Jul 20 j 10:33	3° 5 11'09		minimum elong	-4241 Jan 11 j 10:24		0°55'25
max. Earth dist.	-4247 Jul 31 j 21:11	5°5541'43	6.38917 AU	max. Earth dist.	-4241 Jan 12 j 14:19	20° ₹ 05'20	6.01971 AU
	-			morning rise	-4241 Jan 24 j 17:25		
conjunction	-4247 Aug 02 j 08:39	6°≌01'14	1°11'12		-4241 Feb 24 j 09:55	ರ°0	
minimum elong	-4247 Aug 02 j 08:36	6°≌01'12	1°11'24	retrograde	-4241 Jun 05 j 20:46	13° る 15'13	
morning rise	-4247 Aug 15 j 03:41	8°9549'47		min. Earth dist.	-4241 Aug 03 j 23:34	8° る 19'49	4.01743 AU
retrograde	-4247 Dec 13 j 13:45	25°\$53'04		opposition	-4241 Aug 05 j 00:13	8° ට 11'32	-1°-47'-40
opposition	-4246 Feb 12 j 00:49	21° © 01'14	1°57'06	direct	-4241 Oct 02 j 02:36	3° ⋜ 17'01	
min. Earth dist.	-4246 Feb 13 j 05:04		4.38051 AU	evening set	-4240 Feb 03 j 21:39		
	, and the second se			-	•		

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 15

,	1		•	//	4241 BCE in historical of	/ 1	ige 13
conjunction	-4240 Feb 17 j 08:26			inting style is the year	-4235 Dec 02 j 15:26	$0^{\circ}\Omega$	
minimum elong	-4240 Feb 17 j 08:25		1°21'07	retrograde	-4235 Dec 18 j 01:03	0° Ω 22'26	
max. Earth dist.	-4240 Feb 19 j 03:32		6.02974 AU	renograde	-4234 Jan 02 j 11:26		
morning rise	-4240 Mar 01 j 22:27		0.02774710	opposition	-4234 Feb 16 j 14:00		1°59'32
morning rise	-4240 Mar 06 j 11:58	0°≈		min. Earth dist.	-4234 Feb 17 j 18:20		4.37492 AU
	-4240 May 20 j 18:07			direct	-4234 Apr 20 j 05:30		4.57472710
retrograde	-4240 Jul 11 j 02:50			direct	-4234 Jul 15 j 17:47	0°Ω	
ronogrado	-4240 Aug 31 j 18:32			evening set	-4234 Aug 25 j 02:02	8° Ω 26'47	
opposition	-4240 Sep 08 j 19:58	13°≈54'29	-2°-3'-6	max. Earth dist.	-4234 Sep 04 j 21:59		6.34776 AU
min. Earth dist.	-4240 Sep 07 j 14:28	14°≈04'33	4.05988 AU		p vj		
direct	-4240 Nov 05 j 23:38	8°≈56'51		conjunction	-4234 Sep 06 j 16:14	11°Ω15'06	1°23'55
	-4239 Jan 08 j 06:17	15° ≈		minimum elong	-4234 Sep 06 j 16:14		1°24'04
evening set	-4239 Mar 11 j 21:24	28°≈04'54		morning rise		14° Ω 02'30	
	-4239 Mar 20 j 04:56	0°) €			-4234 Sep 23 j 12:18		
	,, , ,	• / (-4234 Dec 18 j 16:43	0° mp	
conjunction	-4239 Mar 25 j 14:05	1°){ 14'44	-1°-16'-16	retrograde	-4233 Jan 19 j 07:37	1° mp 31'23	
minimum elong	-4239 Mar 25 j 14:08	1°) 14'46	1°16'23		-4233 Feb 20 j 03:27		
max. Earth dist.	-4239 Mar 27 j 10:08	1°) (40′13	6.10012 AU	opposition	-4233 Mar 21 j 05:49		1°56'41
morning rise	-4239 Apr 08 j 08:13	4°) €25'09	0.10012710	min. Earth dist.	-4233 Mar 22 j 11:09	26° Ω 30'23	4.31156 AU
retrograde	-4239 Aug 14 j 18:12	23°) (42'18		direct	-4233 May 22 j 12:11		1.51150710
min. Earth dist.	-4239 Oct 12 j 04:58	18°) (45'59	4.15028 AU	direct	-4233 Aug 09 j 14:34	0°m)	
opposition	-4239 Oct 13 j 03:44	18°) (433)		evening set	-4233 Sep 25 j 06:35	9° Mp 49'44	
direct	-4239 Dec 11 j 03:40	13° X 37'22	-1 -33-30	max. Earth dist.	-4233 Oct 06 j 07:57	-	6.26462 AU
direct	-4238 Apr 06 j 07:41	13 γ (3/22		max. Earth dist.	-4233 Oct 00 j 07.37	12 11/2033	0.20402 AU
evening set	-4238 Apr 00 j 07.41	2° Υ 24'08		conjunction	-4233 Oct 07 j 19:03	12° m 40'34	1°09'11
evening set	-4238 Apr 17 J 02.37	2 12400		minimum elong	-4233 Oct 07 j 19:06		1°09'15
conjunction	-4238 Apr 30 j 21:02	5° Ƴ 30'19	0°-44'-52	morning rise	-4233 Oct 07 j 19.00 -4233 Oct 20 j 06:45	15°My31'15	1 0913
minimum elong	-4238 Apr 30 j 21:06	5° Υ 30'21	0°44'52	morning rise	-4232 Jan 02 j 16:08	0₀ ʊ 12 ⊪31 12	
max. Earth dist.		5° Υ 45'45	6.20343 AU	ratragrada		0 == 3° ჲ 43'36	
	-4238 May 02 j 00:24	3 γ 43 43 8° γ 36'03	0.20343 AU	retrograde	-4232 Feb 22 j 04:00		
morning rise	-4238 May 14 j 15:00 -4238 Sep 16 j 11:41	8° γ 36 03 26° γ 55'09		opposition	-4232 Apr 14 j 01:58 -4232 Apr 23 j 07:21	30° ዪ ጥ 28° ሙ 50'07	1°18'25
retrograde		20 γ 53 09 21° γ 54'18	0°-34'-15	* *			
opposition min. Earth dist.	-4238 Nov 14 j 22:16	21° Y 54 18 21° Y 57'50	4.25574 AU	min. Earth dist.	-4232 Apr 24 j 04:11		4.21325 AU
	-4238 Nov 14 j 11:48	16° Υ 51'13	4.23374 AU	direct	-4232 Jun 23 j 13:22		
direct	-4237 Jan 14 j 03:19			. ,	-4232 Aug 27 j 22:09	0° <u>ი</u>	
	-4237 Apr 27 j 12:04	0°8		evening set	-4232 Oct 26 j 07:12	12-22/07	
evening set	-4237 May 21 j 20:35	5° 8 13'55			4222 NI 07 : 22-22	150 0 10121	0022125
asc. node	-4237 Jun 03 j 12:10	8° 8 01'36		conjunction	-4232 Nov 07 j 22:23		0°32'35
. ,.	4227 1 04:11.00	00 14110	0000107	minimum elong	-4232 Nov 07 j 22:25		
conjunction	-4237 Jun 04 j 11:08	8° 8 14'19	0°00'07	max. Earth dist.	-4232 Nov 07 j 02:41		6.16008 AU
minimum elong	-4237 Jun 04 j 11:08	8° 8 14'19	0°00'15	morning rise	-4232 Nov 20 j 14:51	18° Ω 15'44	
behind sun begin	-4237 Jun 04 j 02:55	8° 8 09'48			-4231 Jan 14 j 19:56	0°M.	
behind sun end	-4237 Jun 04 j 19:20	8° 8 18'50	C 20252 1 1 1	retrograde	-4231 Mar 28 j 19:32	7°M22'17	0010101
max. Earth dist.	-4237 Jun 04 j 14:15	8° 8 15'59	6.30373 AU	opposition	-4231 May 28 j 20:10	2°M25'28	0°12'31
morning rise	-4237 Jun 17 j 23:17			min. Earth dist.	-4231 May 29 j 01:22	2°M23'47	4.10936 AU
	-4237 Jul 05 j 09:57				-4231 Jun 17 j 11:05		
retrograde	-4237 Oct 17 j 23:30	28° 8 44'43	0000150	direct	-4231 Jul 27 j 18:42		
opposition	-4237 Dec 16 j 14:56	23° 8 47'52		desc. node	-4231 Aug 04 j 03:09	27° Ω 37'20	
min. Earth dist.	-4237 Dec 16 j 20:47	23° 8 45'56	4.34264 AU		-4231 Sep 05 j 08:55	0°M	
direct	-4236 Feb 16 j 02:37	18° 8 44'06			-4231 Nov 23 j 00:01	15°M	
	-4236 May 21 j 14:17	0°II		evening set	-4231 Nov 28 j 20:20	16°M22'19	
evening set	-4236 Jun 23 j 00:27	6° Ⅱ 48'12	6 2 7 0 72 1 7 7		1001 5	100***	00.1011
max. Earth dist.	-4236 Jul 05 j 10:22	9° Ⅱ 31'18	6.37053 AU	conjunction	-4231 Dec 11 j 17:44		0°-16'-11
				minimum elong	-4231 Dec 11 j 17:42		0°16'20
conjunction	-4236 Jul 06 j 06:43	9° ∏ 42'28	0°43'51	max. Earth dist.	-4231 Dec 11 j 23:21		6.06689 AU
minimum elong	-4236 Jul 06 j 06:40	9° ∏ 42'26	0°44'01	morning rise	-4231 Dec 24 j 17:37		
morning rise	-4236 Jul 19 j 09:43	12° Ⅲ 35′03			-4230 Jan 26 j 18:46	0° ∡ 7	
retrograde	-4236 Nov 16 j 20:25	29° Ⅱ 40'38		retrograde	-4230 May 04 j 17:39	12° ∡ 25′04	
opposition	-4235 Jan 15 j 22:11	24° Ⅱ 47'05	1°28'51	opposition	-4230 Jul 04 j 08:57	7° ∡ ¹24'21	-1°00'-39
min. Earth dist.	-4235 Jan 16 j 17:37	24° ∏ 40'46	4.38613 AU	min. Earth dist.	-4230 Jul 03 j 20:25	7° ∡ ¹28'30	4.03577 AU
direct	-4235 Mar 19 j 06:23	19° ∏ 44'01		direct	-4230 Sep 01 j 02:08	2° ∡ 31'18	
	-4235 Jun 18 j 03:46	0ಂತಾ		evening set	-4229 Jan 03 j 05:25	21° ∡ ¹40'51	
evening set	-4235 Jul 24 j 21:45	7° © 39'25					
max. Earth dist.	-4235 Aug 05 j 07:26	10° 5 09'38	6.38644 AU	conjunction	-4229 Jan 16 j 09:57		-1°00'-16
				minimum elong	-4229 Jan 16 j 09:54		1°00'28
conjunction	-4235 Aug 06 j 18:48	10° 5 29'07	1°14'23	max. Earth dist.	-4229 Jan 17 j 14:39		6.01891 AU
minimum elong	-4235 Aug 06 j 18:45	10° 5 29'06	1°14'35	morning rise	-4229 Jan 29 j 18:02		
morning rise	-4235 Aug 19 j 12:34	13° © 17'18			-4229 Feb 07 j 07:32	0°ප	

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4229 in astronomical counting style is the year 4230 BCE in historical counting style. retrograde -4229 Jun 10 j 20:21 18°쥥16'19 retrograde -4224 Nov 21 j 06:03 4°9508'05 -4229 Aug 09 j 23:06 13°る12'18 -1°-52'-30 -4223 Jan 14 j 12:35 30°R **Ⅱ** opposition min. Earth dist. -4229 Aug 08 j 21:06 13°る21'04 4.01998 AU opposition -4223 Jan 20 j 08:41 29°**I**I14'53 1°34'56 8°**る**17'25 -4229 Oct 07 j 00:14 -4223 Jan 21 j 05:49 29°**Д**08'03 4.38809 AU direct min. Earth dist. -4228 Feb 08 j 22:52 27°る34'00 -4223 Mar 23 j 19:15 24°**Ⅲ**12'03 evening set direct -4228 Feb 19 j 07:03 -4223 May 28 j 14:24 0ಂತಾ -4223 Jul 29 j 07:53 12°506'44 evening set -4228 Feb 22 j 10:45 max. Earth dist. 6.38501 AU conjunction 0°**≈**44'39 -1°-22'-7 -4223 Aug 09 j 14:07 14°535'15 -4228 Feb 22 j 10:45 minimum elong 0°≈44'39 1°22'17 max. Earth dist. -4228 Feb 24 j 07:18 1°≈10'55 6.03544 AU conjunction -4223 Aug 11 j 03:42 14°555'59 1°17'06 -4223 Aug 11 j 03:40 14°555'57 morning rise -4228 Mar 07 j 01:24 3°≈56'40 minimum elong 1°17'17 -4228 Apr 26 j 17:40 -4223 Aug 23 j 20:30 17°5543'47 15°**≈** morning rise -4223 Oct 25 j 15:49 retrograde -4228 Jul 16 j 00:36 23°≈56'18 $0^{\circ}\Omega$ min. Earth dist. -4228 Sep 12 j 11:04 19°≈00'44 4.06809 AU retrograde -4223 Dec 22 j 12:02 4°**Ω**50′26 opposition -4228 Sep 13 j 15:09 18°≈51'08 -2°-1'-31 -4222 Feb 20 j 22:46 30°Rூ -4228 Oct 16 j 04:14 15°R≈ opposition -4222 Feb 21 j 02:30 29°558'48 2°01'14 direct -4228 Nov 10 j 20:41 13°≈53'07 min. Earth dist. -4222 Feb 22 j 07:11 29°549'38 4.37015 AU -4228 Dec 06 j 16:52 15°≈ direct -4222 Apr 24 j 17:16 24°557'58 -4227 Mar 03 j 17:54 0°\ -4222 Jun 24 j 09:51 $0^{\circ}\Omega$ evening set -4227 Mar 16 j 22:15 2°**)** 59'47 evening set -4222 Aug 29 j 10:39 $12^{\circ}\Omega 55'34$ -4222 Sep 07 j 17:53 15°**Ω** conjunction -4227 Mar 30 j 15:28 6°**)**€09'27 -1°-13'-17 max. Earth dist. -4222 Sep 09 i 07:40 15° Ω 21'09 6.33983 AU minimum elong -4227 Mar 30 i 15:32 6°¥09'29 1°13'23 max. Earth dist. -4227 Apr 01 i 09:33 6°**)** €33'43 6.11020 AU conjunction -4222 Sep 11 j 00:24 15° Ω 43'58 1°23'18 morning rise -4227 Apr 13 j 10:05 9°**¥**19'36 minimum elong -4222 Sep 11 j 00:25 15°Ω43'58 1°23'27 -4227 Aug 19 j 08:54 28° ¥ 30'18 -4222 Sep 23 j 12:04 18°Ω31'29 retrograde morning rise opposition -4227 Oct 17 j 18:31 23°**米**26'37 -1°-26'-42 -4222 Nov 19 j 05:15 0°m -4227 Oct 16 j 20:22 23°\dagger34'10 4.16126 AU retrograde -4221 Jan 23 j 22:36 6° 1004'48 min. Earth dist. -4227 Dec 15 j 20:54 18°₩25'26 -4221 Mar 25 j 22:01 1° m 12'58 1°53'21 direct opposition -4226 Mar 19 j 20:43 $0^{\circ}\Upsilon$ min. Earth dist. -4221 Mar 27 j 02:51 1° mp 03'49 4.30071 AU -4226 Apr 22 j 00:38 7°Υ10'14 -4221 Apr 04 j 14:00 30°R**Ω** evening set -4221 May 27 j 01:51 $26^{\circ}\Omega$ 14'55 direct -4226 May 05 j 18:56 10° **Y** 15'54 0°-39'-4 -4221 Jul 17 j 05:51 conjunction 0° M -4226 May 05 j 18:59 10°**Υ**15'56 0°39'04 -4221 Sep 29 j 16:25 14° m 25'09 minimum elong evening set -4226 May 06 j 18:57 10°**Υ**29'25 max. Earth dist. -4221 Oct 10 j 17:57 16° m 56'33 6.25163 AU max. Earth dist. 6.21476 AU -4226 May 19 j 12:29 13°**Υ**20'59 morning rise -4226 Aug 20 j 16:24 0°**8** -4221 Oct 12 j 04:51 17° m 16'31 1°05'14 conjunction retrograde -4226 Sep 21 j 00:29 1°**8**33'50 minimum elong -4221 Oct 12 j 04:54 17° m 16'33 1°05'16 -4226 Oct 22 j 02:06 30°R℃ morning rise -4221 Oct 24 j 17:06 20° m 07'57 opposition -4226 Nov 19 j 09:53 26°**Υ**33'35 0°-24'-51 -4221 Dec 10 j 01:51 0∘<u>ଫ</u> min. Earth dist. -4226 Nov 19 j 02:10 26°**Υ**36'11 4.26633 AU retrograde -4220 Feb 27 j 01:04 8°**£**27'11 direct -4225 Jan 18 j 19:55 21°**Υ**30'21 -4220 Apr 28 j 04:24 3°**△**33'14 1°10'31 opposition -4225 Apr 08 j 17:47 0° 8 min. Earth dist. -4220 Apr 28 j 23:36 3°**2**27'06 4.19870 AU -4225 Apr 13 j 03:04 0°849'12 -4220 May 29 j 08:09 30°R M asc. node -4225 May 26 j 14:24 9°**8**51'05 direct -4220 Jun 28 j 06:29 28° M 37'57 evening set -4220 Jul 28 i 00:06 0∘**⊽** -4225 Jun 09 i 04:09 12°**8**50'47 0°06'41 conjunction evening set -4220 Oct 30 j 20:56 17° \(\Omega\) 08'28 -4225 Jun 09 j 04:08 12°**8**50'47 minimum elong 0°06'49 -4225 Jun 08 j 20:28 12°846'34 -4220 Nov 12 j 12:59 20°**£**05'48 0°26'10 behind sun begin conjunction behind sun end -4225 Jun 09 j 11:47 12°854'59 minimum elong -4220 Nov 12 i 13:01 20° **2**05'49 0°26'07 max. Earth dist. -4225 Jun 09 j 04:37 12°851'02 6.31290 AU max. Earth dist. -4220 Nov 11 j 21:10 19°**£**56'34 6.14543 AU -4225 Jun 18 j 22:02 15°8 -4220 Nov 25 j 06:14 23°**£**04'02 morning rise -4225 Jun 22 j 15:12 15°**8**49'03 -4220 Dec 26 j 03:03 morning rise o°m. -4225 Sep 06 j 00:07 $0^{\circ}\Pi$ retrograde -4219 Apr 02 j 21:45 12°ML18'11 retrograde -4225 Oct 22 j 07:50 3°**Ⅱ**16′07 opposition -4219 Jun 02 j 21:29 7°M₂20'52 0°02'06 -4225 Dec 08 j 02:40 30°R₩ min. Earth dist. -4219 Jun 03 j 00:42 7°**IL**19'49 4.09581 AU -4225 Dec 21 j 00:57 28°**8**19'44 0°41'55 opposition desc. node -4219 Jun 14 j 02:49 5°M54'45 min. Earth dist. -4225 Dec 21 j 07:45 28°**8**17'30 4.34991 AU -4219 Aug 01 j 15:40 2°M27'33 direct -4224 Feb 20 j 14:52 23°**8**15'59 -4219 Nov 05 j 22:49 15°M direct -4224 May 01 j 17:37 -4219 Dec 03 j 16:34 21°M21'17 Π $^{\circ}$ 0 evening set -4224 Jun 27 j 13:56 11°**Ⅲ**18'41 evening set conjunction -4219 Dec 16 j 14:47 24° ML 25'15 0°-23'-4 conjunction -4224 Jul 10 j 18:53 14°**Ⅲ**12'11 0°49'10 minimum elong -4219 Dec 16 j 14:45 24°M25'14 0°23'14 minimum elong -4224 Jul 10 j 18:49 14°**Ⅱ**12'09 0°49'21 max. Earth dist. -4219 Dec 16 j 22:18 24°M29'43 6.05553 AU max. Earth dist. -4224 Jul 09 j 20:39 13°**I**I59'59 6.37532 AU morning rise -4219 Dec 29 j 15:58 27°M30'53 -4224 Jul 23 j 20:31 17°**Д**04'01 -4218 Jan 09 j 06:51 morning rise -4224 Sep 29 j 08:49 -4218 May 09 j 22:17 17° ₹31'37 retrograde

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4218 in astronomical counting style is the year 4219 BCE in historical counting style. -4218 Jul 09 j 12:23 12° ₹ 30'19 -1°-9'-51 -4212 Jan 16 j 18:53 30°R8 opposition -4218 Jul 08 j 21:04 12° ₹35'24 4.02785 AU -4212 Feb 25 j 04:39 27°**8**42'39 min. Earth dist. direct -4218 Sep 06 j 01:50 -4212 Apr 04 j 22:47 direct 7°**∡**³37'05 Π $^{\circ}0$ -4217 Jan 08 j 07:38 26°**х** 49'18 evening set -4212 Jul 02 j 00:25 15°**Ⅲ**41'34 evening set -4212 Jul 14 j 03:21 18°**Ⅲ**20'33 max. Earth dist. 6.38555 AU -4217 Jan 21 j 13:26 29° ₹ 58'17 -1°-5'00 conjunction -4212 Jul 15 j 04:02 18° \mathbf{II} 34'05 0° 54'01 -4217 Jan 21 j 13:22 29°**∡**¹58'14 minimum elong 1°05'13 conjunction -4212 Jul 15 j 03:59 -4217 Jan 21 j 16:20 0°ರ minimum elong 18°**Ⅲ**34′03 0°54'13 -4212 Jul 28 j 04:11 21°**Ⅲ**24'55 max. Earth dist. -4217 Jan 22 j 22:16 0°る17'50 6.01510 AU morning rise morning rise -4217 Feb 03 j 22:26 3°**ろ**09'00 -4212 Sep 07 j 20:43 0ಂಣ retrograde -4217 Jun 16 j 02:00 23°**궁**26'58 retrograde -4212 Nov 25 j 10:07 8°926'03 -4211 Jan 24 j 15:38 min. Earth dist. -4217 Aug 13 j 23:37 18°₹31'30 4.02090 AU opposition 3°**9**33'08 1°40'12 -4211 Jan 25 j 13:51 opposition -4217 Aug 15 j 01:51 18°₹22'38 -1°-56'-39 min. Earth dist. 3°**©**25'58 4.39402 AU direct -4217 Oct 12 j 02:34 13°る27'24 -4211 Feb 24 j 07:55 30°RⅡ -4216 Feb 02 j 09:25 0°≈ direct -4211 Mar 28 j 03:10 28°**Ⅲ**30′28 evening set -4216 Feb 14 j 04:40 2°≈44'24 -4211 Apr 29 j 05:26 0ಂತಾ evening set -4211 Aug 02 j 13:49 16°923'25 conjunction -4216 Feb 27 j 17:25 5°≈55'12 -1°-22'-44 max. Earth dist. -4211 Aug 13 j 17:33 18°550'39 6.38596 AU minimum elong -4216 Feb 27 j 17:24 5°≈55'12 1°22'54 max. Earth dist. -4216 Feb 29 j 14:39 6°**≈**21'49 6.04089 AU conjunction -4211 Aug 15 j 08:29 19°512'09 1°19'16 morning rise -4216 Mar 12 j 08:59 9°≈07'19 minimum elong -4211 Aug 15 j 08:27 19°5512'08 1°19'26 -4216 Apr 07 i 05:15 15°≈ morning rise -4211 Aug 28 i 00:14 21°\$59'29 retrograde -4216 Jul 20 j 23:43 29°≈02'16 -4211 Oct 05 i 08:58 $0^{\circ}\Omega$ min. Earth dist. -4216 Sep 17 j 08:50 24°≈07'06 4.07788 AU retrograde -4211 Dec 26 i 19:42 9°**Ω**07'19 opposition -4216 Sep 18 j 13:51 23°≈57'11 -1°-58'-59 opposition -4210 Feb 25 j 11:00 4°Ω15'50 2°02'10 -4216 Nov 15 j 20:28 18°≈58'45 min. Earth dist. -4210 Feb 26 j 17:33 direct 4°**Ω**06'06 4.36594 AU -4215 Feb 13 j 12:15 -4210 Apr 06 j 17:33 30°RS 0°¥ -4215 Mar 22 j 03:14 8°\(\)03'15 -4210 Apr 29 j 02:16 29°5015'19 direct evening set -4210 May 21 j 11:47 $0^{\circ}\Omega$ -4215 Apr 04 j 20:53 11°**光** 12'31 -1°-9'-42 -4210 Aug 23 j 12:46 15°**Ω** conjunction -4215 Apr 04 j 20:57 11°**米** 12'33 1°09'46 -4210 Sep 02 j 14:59 $17^{\circ}\Omega 13'33$ evening set minimum elong -4215 Apr 06 j 13:22 11°**米** 35'48 6.12383 AU -4210 Sep 13 j 09:31 19°**Ω**38'08 max. Earth dist. max. Earth dist. 6.33055 AU -4215 Apr 18 j 15:40 14°**米**22'07 morning rise -4215 Jul 08 j 01:05 0°**Υ** -4210 Sep 15 j 04:12 20° Ω 02'06 1°22'14 conjunction -4215 Aug 24 j 03:23 3°**Y**′24'33 -4210 Sep 15 j 04:13 20° Ω 02'07 1°22'23 retrograde minimum elong -4215 Oct 10 j 04:12 30°R € -4210 Sep 27 j 15:45 $22^{\circ}\Omega 49'56$ morning rise -4215 Oct 22 j 12:01 28° ¥21'15 -1°-19'-3 -4210 Oct 31 j 01:51 0° Mg opposition min. Earth dist. -4215 Oct 21 j 15:49 28° \(\)28'07 4.17741 AU retrograde -4209 Jan 28 j 10:14 10° Mp 28'37 direct -4215 Dec 20 j 19:38 23° **∺** 19'43 opposition -4209 Mar 30 j 10:32 5° Mp 36'36 1°49'30 -4214 Feb 27 j 06:10 0°**Υ** min. Earth dist. -4209 Mar 31 j 15:01 5° Mp 27'32 4.28682 AU evening set -4214 Apr 27 j 00:36 12°**Υ**00'16 direct -4209 May 31 j 10:53 0° m/38'52 -4209 Oct 03 j 23:04 18° m 52'23 evening set -4214 May 10 j 18:38 15°**Υ**05'04 0°-32'-57 max. Earth dist. -4209 Oct 15 j 03:10 21° m 25'48 conjunction 6.23440 AU -4214 May 10 j 18:41 15° **Y** 05'06 0° 32'56 minimum elong -4214 May 11 j 17:23 15°**Υ**17'50 6.23248 AU -4209 Oct 16 j 11:55 21° Mp 44'36 1°01'00 max. Earth dist. conjunction -4214 May 24 j 11:26 18°**Υ**'09'06 -4209 Oct 16 j 11:58 21° mp 44'38 morning rise minimum elong -4214 Jul 21 i 21:30 0°8 morning rise -4209 Oct 29 i 00:30 24° m 36'57 retrograde -4214 Sep 25 i 10:44 6°813'13 -4209 Nov 22 i 04:28 0∘**⊽** opposition -4214 Nov 23 j 22:08 1°**8**13'29 0°-15'-18 retrograde -4208 Mar 02 j 20:35 13°**2**04'49 min. Earth dist. -4214 Nov 23 j 15:07 1°**8**15'50 4.28415 AU opposition -4208 May 02 i 22:52 8° \(\Omega\) 10'35 1°02'24 -4214 Dec 03 j 03:46 30°R℃ min. Earth dist. -4208 May 03 i 17:26 8°**ഫ**04'39 4 17917 AU direct -4213 Jan 23 j 11:37 26° Υ 10'07 direct -4208 Jul 02 j 20:54 3°**£**15'40 -4213 Feb 21 j 00:16 27°**Υ**24'45 -4208 Nov 04 j 09:41 21°**£**51'24 asc node evening set -4213 Mar 16 j 00:34 0°႘ max. Earth dist. -4208 Nov 16 j 11:39 24° **2**41'17 6.12536 AU -4213 May 31 j 07:31 14°**8**26'07 evening set -4208 Nov 17 j 02:26 24°**♀**49'58 0°19'43 -4213 Jun 02 j 21:21 15°**8** conjunction -4208 Nov 17 j 02:28 24°**♀**49'58 minimum elong 0°19'39 -4213 Jun 13 j 19:57 17°**8**24'37 0°13'04 -4208 Nov 29 j 20:57 27°**£**49'35 conjunction morning rise -4213 Jun 13 j 19:56 17°**8**24'37 -4208 Dec 09 j 06:04 minimum elong 0°13'12 0° M -4213 Jun 13 j 15:15 17°**8**22'02 behind sun begin -4207 Feb 28 j 15:18 15°M behind sun end -4213 Jun 14 j 00:38 17°**8**27'11 retrograde -4207 Apr 07 j 23:38 17° ML13'36 max. Earth dist. -4213 Jun 13 j 16:31 17°**8**22'44 6.32945 AU desc. node -4207 Apr 25 j 07:47 16° ML 45'21 morning rise -4213 Jun 27 j 05:48 20°**8**21'40 -4207 May 16 j 14:02 15°RML -4213 Aug 13 j 07:30 Π °0 opposition -4207 Jun 07 j 22:08 12°ML15'45 0°-8'-11 retrograde -4213 Oct 26 j 15:41 7°**Ⅱ**42'14 min. Earth dist. -4207 Jun 07 j 22:18 12°ML15'42 4.07692 AU -4213 Dec 25 j 09:35 2°**Ⅱ**46′22 direct -4207 Aug 06 j 10:44 opposition 0°50'21 7°M22'35 min. Earth dist. -4213 Dec 25 j 19:19 2°**耳**43'10 4.36397 AU -4207 Oct 17 j 13:47 15°M

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 18

Attention, astronomical year style is used: The year -4207 in astronomical counting style is the year 4208 BCE in historical counting style.							
evening set	-4207 Dec 08 j 13:24	•		max. Earth dist.	-4201 Jun 18 j 06:43		
8				morning rise	-4201 Jul 01 j 20:53		
conjunction	-4207 Dec 21 j 12:56	29°M27'16	0°-29'-44	8 3	-4201 Jul 25 j 13:34	0°Щ	
minimum elong	-4207 Dec 21 j 12:53	29°M27'14	0°29'53	retrograde	-4201 Oct 30 j 23:03	12° Ⅱ 12'10	
max. Earth dist.	-4207 Dec 22 j 01:35	29°M34'48	6.03969 AU	opposition	-4201 Dec 29 j 19:34	7° Ⅱ 16'46	0°58'42
	-4207 Dec 23 j 19:52	0° ∡ ¹		min. Earth dist.	-4201 Dec 30 j 06:40	7° Ⅱ 13′08	4.37302 AU
morning rise	-4206 Jan 03 j 15:14	2° ∡ ³34′07		direct	-4200 Feb 29 j 16:47	2° Ⅱ 13′07	
retrograde	-4206 May 15 j 06:54	22° ∡ ¹42'10		evening set	-4200 Jul 06 j 12:52	20° Ⅱ 10′02	
opposition	-4206 Jul 14 j 17:02	17° ∡ ¹40′22	-1°-18'-32	max. Earth dist.	-4200 Jul 18 j 10:33	22° Ⅱ 46′11	6.39012 AU
min. Earth dist.	-4206 Jul 14 j 00:13	17° ∡ ¹45'58	4.01682 AU				
direct	-4206 Sep 11 j 03:23	12° ∡ ¹47′00		conjunction	-4200 Jul 19 j 15:00		0°58'44
	-4205 Jan 04 j 19:20	0°ප		minimum elong	-4200 Jul 19 j 14:57		0°58'56
evening set	-4205 Jan 13 j 12:19	2° る 03'04		morning rise	-4200 Aug 01 j 13:56		
		_			-4200 Aug 20 j 21:38	0	
conjunction	-4205 Jan 26 j 19:10	5° る 12'47		retrograde	-4200 Nov 29 j 20:22		
minimum elong	-4205 Jan 26 j 19:06	5° る 12'45	1°09'26	opposition	-4199 Jan 29 j 02:23	7° © 59'34	1°45'12
max. Earth dist.	-4205 Jan 28 j 06:51	5° る 34'02	6.00972 AU	min. Earth dist.	-4199 Jan 30 j 03:17	7° © 51'32	4.39400 AU
morning rise	-4205 Feb 09 j 05:27	8° る 24'15		direct	-4199 Apr 01 j 16:39	2°957'06	
retrograde	-4205 Jun 21 j 07:03	28°る42'58	4.00000 477	evening set	-4199 Aug 06 j 23:18		6 20112 1XX
min. Earth dist.	-4205 Aug 19 j 01:01	23° る 48'03		max. Earth dist.	-4199 Aug 18 j 00:39	23°9916'11	6.38112 AU
opposition	-4205 Aug 20 j 05:41	23° る 38'20	-1°-59'-49		4100 4 10 17 02	220520121	1021107
direct	-4205 Oct 17 j 04:37	18° る 42'41		conjunction	-4199 Aug 19 j 17:03		1°21'07
	-4204 Jan 14 j 23:03	0°≈ 7°≈ ≈50!52		minimum elong	-4199 Aug 19 j 17:01		1°21'18
evening set	-4204 Feb 19 j 12:41	7° ≈ 59'52		morning rise	-4199 Sep 01 j 07:53	26° © 2341 0° Ω	
agnismation	4204 Mar. 04 : 02:21	1190010144	19 221 20	notro ano do	-4199 Sep 17 j 19:36 -4199 Dec 31 j 06:59		
conjunction minimum elong	-4204 Mar 04 j 02:21 -4204 Mar 04 j 02:21	11°≈10'44 11°≈10'45	-1°-22'-39 1°22'49	retrograde opposition	-4199 Dec 31 j 00:39	8° Ω 45'06	2°02'32
max. Earth dist.	-4204 Mar 06 j 00:27	11 ≈10 43 11°≈37'48	6.04814 AU	min. Earth dist.	-4198 Mar 02 j 00:40	8° Ω 35'28	4.35684 AU
morning rise	-4204 Mar 17 j 18:38	11 ≈37 48 14°≈22'48	0.04814 AU	direct	-4198 May 03 j 13:53	3° Ω 44'55	4.33064 AU
morning rise	-4204 Mar 20 j 10:44	15° ≈		direct	-4198 Aug 06 j 13:46		
	-4204 Jun 03 j 08:35	0° ∀		evening set	-4198 Sep 07 j 00:38		
retrograde	-4204 Jul 26 j 00:55	4°){ 11'47		max. Earth dist.	-4198 Sep 17 j 19:54		6.31792 AU
roundgrade	-4204 Sep 17 j 00:37	30°R≈		man. Barur diot.	1190 Sep 17 j 19.0 .	2.00100.	0.517,72110
min. Earth dist.	-4204 Sep 22 j 09:15	29° ≈ 16'18	4.09001 AU	conjunction	-4198 Sep 19 j 13:30	24° Ω 34'00	1°20'40
opposition	-4204 Sep 23 j 13:24	29° ≈ 06'40	-1°-55'-28	minimum elong	-4198 Sep 19 j 13:32		1°20'46
direct	-4204 Nov 20 j 23:49	24°≈07'40		morning rise	-4198 Oct 02 j 00:50		
	-4203 Jan 22 j 14:22	0°)		_	-4198 Oct 13 j 21:18	0° m	
evening set	-4203 Mar 27 j 08:47	13°) €08'49		retrograde	-4197 Feb 02 j 05:21	15° Mp 07'20	
				opposition	-4197 Apr 04 j 05:34	10° m 15'09	1°44'47
conjunction	-4203 Apr 10 j 02:56	16° ¥ 17'35	-1°-5'-32	min. Earth dist.	-4197 Apr 05 j 10:02	10°M/06'06	4.27137 AU
minimum elong	-4203 Apr 10 j 03:00	16° ¥ 17'37	1°05'36	direct	-4197 Jun 05 j 03:47	5°Mp17'51	
max. Earth dist.	-4203 Apr 11 j 19:18	16°) 40′42	6.13958 AU	evening set	-4197 Oct 08 j 11:40	23° Mp 34'42	
morning rise	-4203 Apr 23 j 21:41	19° ∺ 26′28		max. Earth dist.	-4197 Oct 19 j 16:54	26° Mp 09'24	6.21755 AU
	-4203 Jun 12 j 17:11	0° Y					
retrograde	-4203 Aug 28 j 20:21	8° Y 19'39		conjunction	-4197 Oct 21 j 00:49	26° Mp 27′47	0°56'09
min. Earth dist.	-4203 Oct 26 j 10:03	3° Y 23′19	4.19472 AU	minimum elong	-4197 Oct 21 j 00:52	26° m 27'49	0°56'10
opposition	-4203 Oct 27 j 05:28	3° Y 16'43	-1°-10'-48	morning rise	-4197 Nov 02 j 14:10	29° Tp 21'09	
1.	-4203 Nov 22 j 15:57	30° ₹			-4197 Nov 05 j 10:06	0∘ ⊽	
direct	-4203 Dec 25 j 16:18	28°) 14'48		retrograde	-4196 Mar 07 j 20:44	17° £ 57'27	0053131
. ,	-4202 Jan 28 j 03:47	0°Υ 160 % 50150		opposition	-4196 May 07 j 23:47		0°53'21
evening set	-4202 May 02 j 00:37	16° Ƴ 50'50		min. Earth dist.	-4196 May 08 j 15:06	12° £ 57'51	4.16226 AU
	4202 M 15 : 10.00	19° Y ′54'40	09 261 25	direct	-4196 Jul 07 j 16:18	8° £ 08'12	
conjunction	-4202 May 15 j 18:00		0°-26'-35	evening set	-4196 Nov 09 j 03:52	26° £ 47'52	
minimum elong	-4202 May 15 j 18:02	19° Υ 54'41 20° Υ 04'40	0°26'31		4106 N 21 : 21-24	200 0 47120	0012140
max. Earth dist. morning rise	-4202 May 16 j 11:53 -4202 May 29 j 10:11	20°Y57'39	6.24977 AU	conjunction minimum elong	-4196 Nov 21 j 21:34 -4196 Nov 21 j 21:35		0°12'48 0°12'42
morning rise	-4202 May 29 J 10:11 -4202 Jul 01 j 08:32	0° 8		behind sun begin	-4196 Nov 21 j 16:24	29° £ 44'26	0 1242
retrograde	-4202 Jul 01 j 08.32 -4202 Sep 29 j 22:50	10° 8 53'35		behind sun begin	-4196 Nov 21 j 16.24 -4196 Nov 22 j 02:46		
opposition	-4202 Sep 29 j 22.30 -4202 Nov 28 j 10:42	5° 8 54'20	0°-5'-34	max. Earth dist.	-4196 Nov 22 j 02.46 -4196 Nov 21 j 11:45		6.11024 AU
min. Earth dist.	-4202 Nov 28 j 10:42 -4202 Nov 28 j 06:47	5° 8 55'38	4.29973 AU	muz. Darui dist.	-4196 Nov 22 j 18:51	0°M	5.11027 AU
asc. node	-4202 Nov 28 j 00:47	2° 8 05'55		morning rise	-4196 Nov 22 j 18:51 -4196 Dec 04 j 16:59	2°M48'12	
direct	-4201 Jan 28 j 05:46	0° 8 50'45			-4195 Jan 30 j 16:58		
	-4201 May 17 j 04:24	15° 8		desc. node	-4195 Mar 04 j 10:20		
evening set	-4201 Jun 05 j 01:02	19° 8 03'02		retrograde	-4195 Apr 13 j 07:39		
<i>5</i>		÷ · · · · ·		opposition	-4195 Jun 13 j 03:32		0°-18'-55
conjunction	-4201 Jun 18 j 12:31	22° 8 00'34	0°19'29	min. Earth dist.	-4195 Jun 13 j 01:39		4.06515 AU
minimum elong	-4201 Jun 18 j 12:29				-4195 Jul 02 j 00:33		
-	ž.				ž		

direct 4195 Augul 13123 211243 12 months 4190 Sec 201348 12 months 4195 Dec 131448 42 months 4195 Dec 231448 42 months 4195 Dec 231448 42 months 4195 Dec 231448 42 months 42 months 4195 Dec 231448 42 months 61 months 4195 Dec 231448 42 months 62 months 4195 Dec 231448 42 months 42 months 4195 Dec 231448 42 months 42 months 4195 Dec 231448 42 months 42 months <th>-</th> <th>ical year style is used: Th</th> <th></th> <th>•</th> <th>, , , , , , , , , , , , , , , , , , ,</th> <th></th> <th>, .</th> <th></th>	-	ical year style is used: Th		•	, , , , , , , , , , , , , , , , , , ,		, .	
1-918 1-91			-					
coring set 419 S De 13 j 141 12 9 5052 S 52 9 5052 S 18 9 1 10 10 10 10 10 10 10 10 10 10 10 10 1						, and the second		
1989 1987 1988 1989		-4195 Dec 07 j 04:06	0° ∡ ¹		conjunction	-4189 Jun 23 j 01:42	26° 8 29'58	0°25'37
conjunction -195 Dec 26 1441 47,9562 0 93,0523 97,9563 0 90,9525 -1189 Iul 69,0050 97,8528 OTT max. Earth dat. -195 Dec 27 96,41 47,9562 0 92,95554 60,3240 AU ectograde 41,98 Nov 61,072 2 167,17575 10,910 1 10,910 2 10,910 2 10,910 2 10,910 2 10,910 2 10,910 2 10,900 common Earth dat. -194 Mun 92,102 5 22,95555 5 12,624 3 10,910 2 10,910 2 10,92 48 24,910 0 10,910 2 10,900 common Earth dat. -194 Nov 10,910 2 10,910 2 10,92 48 24,910 0 10,910 2 10,910 2 10,900 common Earth dat. -194 Nov 10,910 2 10,92 48 12,910 2 12,910 2 10,900 common Earth dat. -194 Nov 10,910 2 10,92 48 12,900 2 12,910 2 10,900 common Earth dat. -194 Nov 10,910 1 10,900 2 12,900 2 12,900 2 10,900 common Earth dat. -194 Nov 10,910 1 10,900 2 12,900 2 12,900 2 10,900 common Earth dat. -194 Nov 10,910 1 10,900 2 12,900 2 12,900 2 10,900 common Earth dat. -194 Nov 10,910 2 10,900 2 12,900 2 12,900 2 10,900 common Earth dat. -194 Nov 10,910 2 10,900 2 12,900 2 12,900 2 12,900 2 10,900 common Earth dat. -194 Nov 10,910 2 10,900 2 12,900 2 12,900 2 12,900 2 10,900 common Earth dat. -194 Nov 10,910 2 10,900 2 12,900 2 12,900 2 10,900 common Earth dat. -194 Nov 10,910 2 10,900 2 12,900 2 12,900 2 12,900 2 10,900 common Earth dat. -194 Nov 10,910 2 12,900 2 12,900 2 12,900 2 10,900 common Earth dat. -194 Nov 10,910 2 12,900 2 12,900 2 10,900 common Earth dat. -194 Nov 10,910	evening set	-4195 Dec 13 j 14:15	1° ∡ ³30′54		minimum elong	-4189 Jun 23 j 01:39	26° 8 29'57	0°25'46
minimoding					max. Earth dist.	-4189 Jun 22 j 14:41	26° 8 23'55	6.35018 AU
max Farth dist 4194 Law 6 [8]145 79-2447 s.] 67-245 s.] 67-245 s.] 67-245 s.] 79-245 s.]	conjunction	-4195 Dec 26 j 14:41	4° ∡ ³36′52	0°-36'-24	morning rise			
mommers 4194 May 50 j1815 7°94433 opposition 4198 May 50 j1612 27°94834 opposition 4198 May 50 j1612 27°868 VA opposition 4198 May 10 j16224 22°96335 1"2 cwl direct 4198 May 10 j16224 22°96335 1"2 cwl circle of certification 4188 May 10 j1621 27°1700 6.880 May 10 j1620 27°1700 6.880 May 10 j1610 7"1700 6.880 May 10 j1610 7"17000 6.880 May 10 j1610 6.880 May 10 j1610 6.880 May 10 j1610 6.980 May 10 j1610	· ·	3	4° ∡ ³36′50			-		
retrograde 4194 km 20 j.25 27-8559 b. min. Earth dist. 4188 km 20 j.023 27-107-20 4.77-20		3		6.03240 AU	•	•		
opposition 4.194 Lal 19/2-24 22-85335 17-207 direct 4.188 Lal 10/2-25 22-9010 2-8-2001 4.188 Lal 10/2-25 22-7011 6.3894 AU direct 4.194 Lal 19/2-25 18/9-2003 18/9-2003 conjunction 4.188 Lal 12/2-10.05 27-211.724 19/303 evening set 4.193 Lal 19/1-25 17-216.03 18/1-256 minimum cong 4.188 Lal 24/1-250 27-217-272 19/31 conjunction 4.193 Feb 0 19/11 107-2582 18/1-256 minimum cong 4.188 Land 19/10 27-217-25 19/31 minimum cong 4.193 Feb 0 19/11 19/32-25 18/13/2-25 18/13/2-25 18/13/2-25 18/13/2-25 18/13/2-25 18/13/2-25 18/13/2-25 18/13/2-25 18/13/2-25 18/13/2-25 18/13/2-25 18/13/2-25 18/13/2-25 418/13/2-25 18/13/2-25 418/13/2-25 18/13/2-25 418/13/2-25 18/13/2-25 418/13/2-25 18/13/2-25 418/13/2-25 418/13/2-25 18/13/2-25 418/13/2-25 18/13/2-25 418/13/2-25 418/13/2-25 418/13/2-25 418/13/2-25	•	-						
min fandissed 4.194 kg big jolds 505 8.29%019 kg big side of control of con	-			10.041.40				4.37688 AU
direct 4194 Sep 16 j 05.28 l 8°8'00'03 ora was Land bads 24 j 1913 m 18 j 17.31 l 7°8'16'00 coming set 4193 Jan 18 j 17.31 l 7°8'16'00 companies 4193 Jan 18 j 17.31 l 7°8'16'00 companies 4193 Jan 18 j 17.31 l 7°8'16'00 companies 4188 Jal 24 j 00.51 l 27°12'22'1 l 70'03'3 minimum clong 4188 Jal 24 j 00.51 l 27°12'22'1 l 70'03'3 minimum clong 4188 Jal 24 j 00.51 l 27°12'22'1 l 70'03'3 minimum clong 4188 Jal 24 j 00.51 l 27°12'22'1 l 70'03'3 minimum clong 4189 Jal 24 j 00.51 l 27°12'22'1 l 70'03'3 minimum clong 4189 Jal 24 j 00.51 l 27°12'1 l 70'03'3 minimum clong 4189 Jal 26 j 10.10 l 70'23'1 l 70'03'3 minimum clong 4189 Jal 26 j 10.10 l 70'23'1 l 70'23'1 l 70'03'3 minimum clong 4193 Jal 26 j 10.10 l 70'23'3 l 70'23'1 l 70'23'3 l 7		3				3		
1499 1499		-		4.01526 AU	=	-		6 29042 ATT
evening set 4,193 Jan 18 j 1,731 7-50 Feb conjunction 4183 Ja 24 j 00.51 27 T2722 1070 30 conjunction 4193 Feb 0 j 0 j 10 j 10 j 10 j 10 j 10 j 10 j	direct				max. Earth dist.	-4100 Jul 22 J 19.13	27 Д1106	0.36943 AU
conjunction 4.493 Feb 01 jol.19 10°E3025 1-12.56 4.188 Aug 14 jol.48 2°T12720 10°B3025 1-12.56 4.188 Aug 05 jol.22 0°T070 10°B3025 1-12.56 4.188 Aug 05 jol.22 0°T0710 1<	evening set	3			conjunction	-4188 Iul - 24 i 00:51	27° ∏ 27'24	1°03'03
conjunction -4193 Feb (1) [0119] 10*Zecccccccccccccccccccccccccccccccccccc	evening set	-41/5 Jan 10 J 17.51	7 01030		-			
minum clong 4193 Feb 0, j0.116 0 ™Z56923 1°1308 menoming rise 4188 Reg 0, j1.223 0°251701 7°25171 7°25171 7°25171 7°25171 7°25171 7°25171 8°2518 1°25170 4188 Dec 0, j1.253 0°25171 2°25181 1°25170 4188 Dec 0, j1.253 0°25171 2°25181 2°25181 2°25181 2°25181 2°25181 2°25181 2°25181 2°25181 2°25181 2°25181 2°25181 2°25181 2°25181 2°25181 2°25181 2°25181 2°25181 2°25181 2°2718 3°2752 4°187 Cuc plant 2°271873 3°2752 4°187 Cuc plant 2°271873 3°2752 4°187 Cuc plant 2°271873 3°2718 3°2718 3°2718 4°187 Cuc plant 2°271873 3°2718	conjunction	-4193 Feb 01 i 01:19	10°る26'25	-1°-12'-56	minimum ciong	-		1 03 13
max Earth dist 4193 Feb 0.515.59 10°549/14 6.01370 AU retrograde 4188 Feb 0.312.55 12°92575 1493 May retrograde 4193 Jan 2.610-40 3°858783 december 1.818 Feb 0.312.55 12°82757 4.38918 AU min. Earth dist 4193 Aug 24 (02.57) 28°55841 4.0118 Aug 4.187 Aug 21.008.00 27°52815 3.034 AU gropposition 4193 Aug 24 (02.57) 28°55841 4.0118 Aug 4.187 Aug 22 (10.40) 28°50841 5.034 AU direct 4193 Oct 22 (10.83) 3°55274 28°15845 28°1199 4.187 Aug 24 (10.40) 28°20641 12°228 direct 4193 Cet 24 (17.48) 13°80723 3°75274 18°2179 4.187 Aug 24 (10.40) 28°20641 12°2278 evening set 4192 Feb 24 (17.48) 13°80723 18°21788 4.187 Aug 4.10) 28°20641 12°2278 conjanction 4192 Feb 24 (17.48) 16°84759 12°2188 18°2188 4.188 Aug 4.10) 28°20641 12°2278 conjanction 4192 Mar 0.9) 68.2 16°8459 12°2188 4.188 Aug 4	-				morning rise	• •		
morning ring morning ring ring ring ring ring ring ring	· ·				-			
retrograde	morning rise	3			-			1°49'33
Min. Earth dist.			0° ≈			-		4.38918 AU
min Earth dist 4193 Aug 24 j 0.25 2 28°58/84 1 4031 SA max. Earth dist 4187 Aug 22 j 0.80 2 2°€04/35 2 6.3724 (A D D D D D D D D D D D D D D D D D D	retrograde	-4193 Jun 26 j 10:40	3° ≈ 53'48		direct	-4187 Apr 06 j 02:55	7° © 23'51	
opposition 4.193 Aug 2.5 j.07.4 28°-548'S4 2°-1.59 conjunction 4.187 Aug 24 j.01.48 28°-2606'Al 1°2220'Al evening set 4.192 Feb 24 j.17.49 1°3-3072'S minimum clong 4.187 Sep 0.1 j.01.48 28°-2606'Al 1°2220'Al conjunction 4.192 Mar 0.9 j.08.19 1°8-307'S9 1°-21'-58 retrograde 4.187 Sep 0.1 j.01.41 8°.0 4.00 conjunction 4.192 Mar 0.9 j.08.20 1°8-38'79 1°-21'-58 retrograde 4.188 Town 1.9 j.1.94 15°-20' 4.188 Town 1.9 j.1.94 15°-20' 0°20' 4.188 Fabor 0.4 j.1.20 15°-20' 4.188 Mar 0.6 j.1.55 15°-21' 0°20' 4.188 Mar 0.6 j.1.55 15°-21' 0°20' 4.188 Mar 0.6 j.1.55 15°-21' 0°20' 0°20' 4.188 Mar 0.6 j.1.55 15°-21' 0°20'<		-4193 Aug 16 j 12:30	30°Ŗ₹		evening set	-4187 Aug 11 j 09:06	25° © 18'17	
direct 4193 Oct 22 j 08:39 29 d 52:41 conjunction 4187 Aug 24 j 01:49 28 d 50:64 12228 evening set 4192 Feb 24 j 17:49 39 sabor 23 j 15:89 respective per a 4187 Sep 0 j 16:48 60 2239 42249 42239 42249 42249 42249 42249 42249 42249 42249 42249 42249 42249 42249 42249 42249	min. Earth dist.	-4193 Aug 24 j 02:57	28° る 58'41	4.03115 AU	max. Earth dist.	-4187 Aug 22 j 08:08	27°5643'35	6.37246 AU
evening set 4.193 Dec 24 j 17.549 18°-86° 124 j 17.449 18°-280° 124 j 17.449 18°-281° 124 j 17.4499 18°-281° 124 j 17.449 18°-	opposition	-4193 Aug 25 j 07:44	28° る 48'54	-2°-1'-59				
Part	direct	-4193 Oct 22 j 08:39			3			1°22'28
Alga Nari 03 j 18:55 5°se moming rise 4187 Se 05 j 1600 0°Ω3356 Face Conjunction 4192 Mari 09 j 08:19 16°sel 1759 7-21'-58 retrograde 4186 Jan 04 j 12:08 18°α Dorl 12:08 18°α Do					minimum elong			1°22'39
conjunction 4192 Mar 09 j 08.19 16%81759 1°21/58 retrograde 4186 No 19 j 19.30 15% Q09 l 1 470 Mar 09 j 08.20 16%81709 1°21/58 retrograde 4186 Reb 20 j 23.11 15% Q0 470 Mar 11 j 07.49 16%81800 1°2207 minimum commoning rise 4192 Mar 12 j 01.02 16%84784 606142 AU opposition 4186 Mar 05 j 15.56 13% Q1752 3.43 Q1752 4.34 APA 7A retrograde 4192 Mar 13 j 01.215 9°H 104 4186 Mar 05 j 15.6 13°Q 1748 4.348 APA 7A opposition 4192 Sep 27 j 05.26 4°H 5110 4.0599 AU evening set 4186 Mar 01 j 11 26°Q 2046 direct 4192 Nov 02 j 21.41 9°M 10°H 1.0599 AU evening set 4186 Sep 2 j 23 j 23.54 29°Q 1008 18'18'38 direct 4192 Nov 02 j 21.41 9°% 60°21 minimum clong 4186 Sep 2 j 23 j 23.55 29°Q 1009 18'18'38 evening set 4191 Apr 15 j 04.26 12°H 112 1°11/44 1°11/44 1°11/44 1°11/44 1°11/44 1°11/44 1°11/44 1°11/44 1°11/44 1°11/44	evening set	-						
conjunction 4192 Mar 09 j 08:19 16% 1759 1°-21°-58 retrograde 4186 Feb 20 j 23:11 18° 60° 2 2 18° 60° 2 2 18° 60° 2 2 2 2 2 18° 60° 2 3 0 2 2 2 3 2 3 2 3 4		-4192 Mar 03 j 18:55	15° ≈		morning rise			
minimum elong 4192 Mar 09j 0820 16%81800 19207 4186 Feb 20j 23:11 15%Q 20209 max. Earth dist. 4192 Mar 11 j 0749 16%84545 6.06142 AU opposition 4186 Mar 06 j 13:50 13°QU782 20209 morning rise 4192 May 10 j 09;12 9°×2973 direct 4186 May 08 j 04:53 8°QU892 4348 May 08 j 04:53 8°QU892 min. Earth dist. 4192 Sep 27j 05:26 49*H519 410599 AU evening set 4186 Sup 117 j 18:40 15°Q 40 direct 4192 Sep 28j 08:58 49*H519 410599 AU evening set 4186 Sep 23j 23:56 29°QU109 18'838 AU direct 4192 Nov 25j 21:48 29%80f21 conjunction 4186 Sep 23j 23:56 29°QU09 18'838 AU evening set 4191 Apr 10 j 10:17 18°9302 18°2403 18'843 AU 18'8592 23j 23:56 29°QU09 18'838 conjunction 4191 Apr 15 j 04:25 12°H1124 12°14 retrograde 4185 Oet 05 j 10:11 19°8522 19'8162 conjunction 4191 Apr 15 j 04:25 12°H124<						•		
max. Earth dist. 4.192 Mar 1 j 07.49 9°84545 9°84575 0.60142 AU opposition of morning rise (4192 Mar 2 j 010-2) 19°8257 10°84574 0°8474 0°84074	-	3			retrograde			
moming rise 4.192 Mar 23 j 0.02 19% ≈29.37 min. Earth dist 4.186 Mar 07 j 23.07 23 Q0752 4.349 YN U retrograde 4192 May 10 j 0.121 0°H drect 4186 May 08 j 0.153 8°Q1800 10°C min. Earth dist 4192 Sep 27 j 0.526 4°H 510 4.10599 AU evening set 4186 Sep 1 j 11:11 6°Q2046 6°Q3046 direct 4192 Nov 25 j 21:47 30°8 × 6°Q1000 enjunction 4186 Sep 2 j 23:35:6 2°Q1008 18°83 direct 4192 Nov 25 j 21:47 2°%40621 6°M 6°M 6°M 6°M 8°M 30°M 8°M 30°M 9°M	Č				.,.	-		2002100
retrograde -4192 May 10 j 09:12 0°H direct -4186 May 08 j 04:53 8°Ω 18°02 retrograde -4192 Sep 27 j 05:26 4°H 51°10 4.10599 AU evening set -4186 Sep 1 j 11:11 26°Ω 20°0 - opposition -4192 Sep 28 j 08:58 4°H 55°40 -1°-51·11 max. Earth dist. -4186 Sep 2 j 21:35 28°Ω 47°11 6.0388 AU direct -4192 Nov 02 j 21:04 29°∞ 80°21 conjunction -4186 Sep 2 j 23:25 29°Ω 1009 1°8'33 evening set -4191 Apr 01 j 10:17 18°H03'20 minimum elong -4186 Sep 2 j 23:25 29°Ω 1009 1°8'38 evening set -4191 Apr 15 j 04:26 1°8'H124 -1°-1'-4 retrograde -4186 Sep 2 j 25:35 29°Ω 1009 1°8'38 evening set -4191 Apr 15 j 04:30 21°H1124 -1°-1'-4 retrograde -4186 Sep 2 j 10:40 1°9'0'0 2°9'1'0 max. Earth dist. -4191 Apr 15 j 04:30 21°H1124 1°-1'-1'-4 retrograde -4185 Apr 10 j 04:01 1°#0'5'1 42°8'1'10 42°8'1'10 42°8'1'10 42°8'1'10 42°8'1'10 42°8'1'10 </td <td></td> <td>-</td> <td></td> <td>6.06142 AU</td> <td></td> <td>-</td> <td></td> <td></td>		-		6.06142 AU		-		
retrograde 4192 Jul 30 j 21:15 9*M1040 evening set 4186 Jul 17 j 18:40 15° Ω min. Earth dist. 4.4192 Sep 27 j 05:26 4*M5101 4.10599 AU evening set 4.4186 Sep 11 j 11:11 26° Ω2046 3.0384 AU opposition 4.4192 Nov 02 j 21:07 30°Rss 4*960512 conjunction 4.186 Sep 21 j 23:56 29° Ω1008 1°833 direct 4.192 Nov 02 j 21:04 29°%0621 conjunction 4.186 Sep 23 j 23:56 29° Ω1008 1°18'33 evening set 4.191 Apr 0 j j 10:17 18°8'03'20 minimum elong 4.186 Sep 27 j 16:09 0°% 1°18'33 minimum elong 4.191 Apr 15 j 04:26 21°*H1124 1°1-14 retrograde 4.185 Feb 07 j 00:00 0°90 1°39'16 max. Earth dist. 4.191 Apr 15 j 04:30 21°*H124 1°1-14 retrograde 4.185 Apr 0 j 00:218 1°39'16 4°39'16 max. Earth dist. 4.191 Apr 18 j 16:16:33 21°*M19'13 1°2-14 min. Earth dist. 4.185 Apr 10 j 04:07 1°39'16 4°2-11 Au retrograde 4.191 Apr 18 j 16:16:33	morning rise					3		4.34497 AU
min. Earth dist. 4.192 Sep 27 j 05:26 4°% 15'10 4.0599 AU evening set 4.186 Sep 1 j 1:11 26° Ω204 1 0.0338 AU 0.0338 AU 0.0338 AU 0.0384 AU 0.0384 AU 0.0384 AU 0.0384 AU 0.0384 AU 0.0388 AU 0.03	retrograde				direct			
opposition 4.92 Sep 2g 9c 8c 9c	-			4 10599 AU	evening set			
direct 4192 Nov 2j 21:77 30°R≈4					=			6 30384 AU
direct 4192 Nov 25 j 21:44 (49) ∞ 20 j 30:49 (79) (79) (79) (79) (79) (79) (79) (79	оррозиюн	1 3		1 21 11	max. Darm dist.	1100 Sep 22 j 07.10	20 0017 11	0.50501710
evening set	direct				conjunction	-4186 Sep 23 j 23:54	29° Ω 10′08	1°18'33
conjunction -4191 Apr 15 j 04:26 21°H 11'24 -1°-1'-4 retrograde -4186 Feb 07 j 00:09 19° m 50'52 -1° 39'16 minimum elong -4191 Apr 15 j 04:30 21°H 11'24 1°01'08 opposition -4185 Apr 09 j 02:18 14° m 58'24 1°39'16 max. Earth dist. -4191 Apr 16 j 16:33 21°H 21'31 opposition -4185 Apr 09 j 02:18 14° m 58'24 425611 AU morning rise -4191 Apr 16 j 16:33 21°H 21'31 opposition -4185 Apr 10 j 04:07 14° m 58'21 425611 AU retrograde -4191 May 24 j 16:54 0°°V cevening set -4185 Oct 20 j 05:01 0°°£ -22'24 max. Earth dist. -4185 Oct 20 j 05:01 0°°£ 620255 AU opposition -4191 Oct 31 j 01:59 8°°Y0'116 -1°-2'-24 max. Earth dist. -4185 Oct 25 j 15:13 1°°£ 11'5 0°2055 AU direct -4191 Oct 31 j 01:59 8°°Y0'10 -1°-2'-24 max. Earth dist. -4185 Oct 25 j 15:13 1°°£ 15'15 0°5051 direct -4190 May 20 j 13:15 22°°Y5'02 conjunction -4185 Oct 25 j 15:16		-	0° ∀		-	-4186 Sep 23 j 23:56		1°18'38
conjunction -4191 Apr 15 j 04:26 21° χ 11'24 1° 01'08 opposition -4185 Apr 0 j 0:028 19° χ 50'25 14° χ 58'24 1° 39'16 max. Earth dist. -4191 Apr 16 j 16:33 21° χ 12° χ	evening set	-4191 Apr 01 j 10:17	18° ¥ 03′20			-4186 Sep 27 j 16:09	0° m	
minimum elong					morning rise	-4186 Oct 06 j 11:13	1° m 59'00	
max. Earth dist. 4.919 Apr 16 j 16:33 21° χ32'00 6.15676 AU min. Earth dist. 4.418 S Apr 10 j 04:07 10 j 04:07 4.25611 AU moming rise 4.419 Apr 28 j 23:15 24° χ19'31 direct -4185 Jun 09 j 20:02 10° φ01'33 28° φ21'23 retrograde 4.191 Sep 02 j 09:16 13° γ03'45 evening set -4185 Oct 20 j 05:01 0° Φ opposition 4.491 Oct 31 j 18:53 8° γ07'00 4.21131 AU max. Earth dist. -4185 Oct 20 j 05:01 0° Φ58'57 6.20255 AU min. Earth dist. 4.191 Oct 31 j 18:53 8° γ07'00 4.21131 AU max. Earth dist. -4185 Oct 25 j 15:13 1° Φ15'15 0° 50'51 direct -4191 Dec 30 j 10:26 2° γ7'59'02 conjunction -4185 Oct 25 j 15:13 1° Φ15'15 0° 50'51 evening set 4190 May 20 j 13:15 24° γ31'14 minimum elong -4185 Nov 07 j 05:08 4° £09'32 0° 50'52 evening set -4190 May 20 j 13:15 24° γ34'16 0° 20'15 retrograde -4184 May 13 j 01:40 17° £5'81 0° 43'88 max. Earth dist. -4190 May 20 j	conjunction			-1°-1'-4	retrograde	-4185 Feb 07 j 00:09	19° m 50'52	
morning rise -4191 Apr 28 j 23:15 24°H1931 direct -4185 Jun 09 j 20:02 10° t0133 -4191 May 24 j 16:54 0° V evening set -4185 Oct 13 j 01:39 28° t0123 -4185 Oct 13 j 01:39 28° t0123 -4185 Oct 20 j 05:01 0° 2 -4185 Oct 20 j 05:01 4185 Oct 20 j 15:01 0° 2 -4185 Oct 20 j 05:01 4185 Oct 20 j 05:01 4185 Oct 20 j 05:01 0° 2 -4185 Oct 20 j 05:01 0° 2 -4185 Oct 20 j 05:01 4185 Oct 20 j 15:01 0° 2 -4185 Oct 20 j 05:01 4185 Oct 20 j 15:01 0° 2 -4185 Oct 20 j 15:01 4185 Oct 20 j 15:01 4184 Oct 20 j 05:01 4184 Oct 20 j 05:01 4184 Oct 20 j 05:01 0° 2 -4184 Oct 20 j 05:02	minimum elong		21° 米 11′26	1°01'08	opposition		14° m 58'24	1°39'16
Conjunction A191 May 24 j 16:54 O°Ψ Conjunction A185 Oct 13 j 01:39 28°¶21'23 Conjunction A191 Oct 31 j 18:50 8°Ψ01'16 A191 AU A191 Oct 31 j 01:59 8°Ψ01'16 A191 AU A191 AU A191 Oct 31 j 01:59 A191 AU A191 Oct 31 j 01:59 A191 Oct 31 j 01				6.15676 AU	min. Earth dist.			4.25611 AU
retrograde	morning rise					-		
opposition -4191 Oct 31 j 18:50 8° γ01'16 -1°-2'-24 max. Earth dist. -4185 Oct 24 j 11:01 0° £58'57 6.20255 AU min. Earth dist. -4191 Oct 31 j 01:59 8° γ07'00 4.21131 AU conjunction -4185 Oct 25 j 15:13 1° £15'15 0°50'51 evening set -4190 May 06 j 20:14 21° γ31'14 conjunction -4185 Nov 07 j 05:08 4° £09'32 conjunction -4180 May 20 j 13:15 24° γ34'16 0° -20'-15 retrograde -4184 Mar 13 j 00:08 22° £53'20 conjunction -4190 May 20 j 13:17 24° γ34'17 0° 20'12 opposition -4184 May 13 j 01:40 1° £05'11 0° 43'48 max. Earth dist. -4190 May 20 j 13:15 24° γ34'17 0° 20'12 opposition -4184 May 13 j 01:40 1° £05'11 0° 43'48 max. Earth dist. -4190 May 21 j 04:34 24° γ34'18 6.26466 AU min. Earth dist. -4184 May 13 j 01:40 1° £05'31 4.14842 AU morning rise -4190 Jun 14 j 02:37 0° 8 evening set -4184 Nov 13 j 22:46 1° £06'12 1° £06'12 4184 Nov 13 j 22:46 1° £06'12 1° £06'12 <td></td> <td></td> <td></td> <td></td> <td>evening set</td> <td>-</td> <td></td> <td></td>					evening set	-		
min. Earth dist.	•			10.01.04	P 4 P	-		6 000 5 5 A X X
direct -4191 Dec 30 j 10:26 2°Y59'02 conjunction -4185 Oct 25 j 15:13 1° £15'15 0°50'51 evening set -4190 May 06 j 20:14 21°Y31'14 minimum elong -4185 Oct 25 j 15:16 1° £15'17 0°50'52 conjunction -4190 May 20 j 13:15 24°Y34'16 0°-20'-15 retrograde -4184 Mar 13 j 00:08 22° £3'20 - minimum elong -4190 May 20 j 13:17 24°Y34'17 0°20'12 opposition -4184 May 13 j 01:40 17° £5'11 0°43'48 max. Earth dist. -4190 May 21 j 04:34 24°Y42'48 6.26466 AU min. Earth dist. -4184 May 13 j 15:19 17° £5'11 0°43'48 morning rise -4190 Jun 13 j 04:27 27°Y36'15 direct -4184 May 13 j 15:19 17° £5'31 4.1842 AU retrograde -4190 Jun 14 j 02:37 0°8 evening set -4184 Nov 06 j 08:23 0°M retrograde -4190 Oct 104 j 07:15 15°825'30 evening set -4184 Nov 26 j 17:15 4° M46'39 0°05'46 ass. node -4190 Nov 10 j 08:44 13° 825'34 conjunction -4184					max. Earth dist.	-4185 Oct 24 J 11:01	0° <u>11.</u> 58′57	6.20255 AU
evening set -4190 May 06 j 20:14 21°°Y31'14 minimum elong morning rise -4185 Oct 25 j 15:16 1°Δ15'17 0°50'52 conjunction -4190 May 20 j 13:15 24°°Y34'16 0°-20'-15 retrograde -4184 Mar 13 j 00:08 22°Δ53'20 minimum elong -4190 May 20 j 13:17 24°°Y34'17 0°20'12 opposition -4184 May 13 j 01:40 17°Δ58'11 0°43'48 max. Earth dist. -4190 May 21 j 04:34 24°°Y42'48 6.26466 AU min. Earth dist. -4184 May 13 j 15:19 17°Δ53'47 4.14842 AU morning rise -4190 Jun 03 j 04:27 27°°Y36'15 direct -4184 Jul 12 j 14:59 13°Δ03'54 -4190 Sep 18 j 03:49 15°8 evening set -4184 Nov 06 j 08:23 0°1L retrograde -4190 Oct 04 j 07:15 15°825'30 asc. node -4190 Nov 10 j 08:44 13°815'44 conjunction -4184 Nov 26 j 17:15 4°1L46'39 0°05'46 asc. node -4190 Nov 10 j 08:44 13°815'44 minimum elong -4184 Nov 26 j 09:32 4°1L42'07 min. Earth dist. -4190 Dec 02 j 20:12 10°826'53 0°03'51 behind sun begin -4184 Nov 26 j 09:32 4°1L42'07 min. Earth dist. -4190 Dec 02 j 18:24 10°827'29 4.31169 AU behind sun end -4184 Nov 26 j 10:37 4°1L42'46 6.09882 AU direct -4189 Feb 01 j 18:37 5°823'16 max. Earth dist. -4184 Nov 26 j 10:37 4°1L42'46 6.09882 AU				4.21131 AU		4105 0-4 25 : 15.12	10 0 15115	0050151
morning rise						·		
conjunction	evening set	-4190 May 00 J 20.14	21 31 14		_			0 30 32
minimum elong -4190 May 20 j 13:17 24°Υ34'17 0°20'12 opposition -4184 May 13 j 01:40 17° £58'11 0°43'48 max. Earth dist. -4190 May 21 j 04:34 24° Υ42'48 6.26466 AU min. Earth dist. -4184 May 13 j 01:40 17° £58'11 0°43'48 morning rise -4190 Jun 03 j 04:27 27° Υ36'15 direct -4184 May 13 j 15:19 13° £03'54 4.1484 AU -4190 Jun 14 j 02:37 0°8 evening set -4184 Nov 06 j 08:23 0° ħ -4184 Nov 13 j 22:46 1° ħ46'12 1° ħ46'12 retrograde -4190 Oct 04 j 07:15 15° 825'30 evening set -4184 Nov 26 j 17:15 4° ħ46'39 0°05'46 asc. node -4190 Nov 10 j 08:44 13° 815'44 minimum elong -4184 Nov 26 j 17:16 4° ħ46'39 0°05'40 opposition -4190 Dec 02 j 20:12 10° 826'53 0°03'51 behind sun begin -4184 Nov 26 j 09:32 4° ħ46'39 0°05'40 min. Earth dist. -4190 Dec 02 j 18:24 10° 827'29 4.31169 AU behind sun end -4184 Nov 26 j 10:37 4° ħ42'07 6.09882 AU	conjunction	-4190 May 20 i 13:15	24° ℃ 34'16	0°-20'-15	-	,		
max. Earth dist.					-	-		0°43'48
morning rise -4190 Jun 03 j 04:27 27°Υ36'15 direct -4184 Jul 12 j 14:59 13°Ω0'54 12 j 14:59	· ·							
-4190 Jun 14 j 02:37 0°8 evening set -4184 Nov 06 j 08:23 0°M evening set -4184 Nov 13 j 22:46 1°M 46'12 retrograde -4190 Oct 04 j 07:15 15°825'30 evening set -4184 Nov 26 j 17:15 4°M 46'39 0°05'46 asc. node -4190 Nov 10 j 08:44 13°815'44 minimum elong -4184 Nov 26 j 17:16 4°M 46'39 0°05'40 opposition -4190 Dec 02 j 20:12 10°826'53 0°03'51 behind sun begin -4184 Nov 26 j 09:32 4°M 42'07 min. Earth dist4190 Dec 02 j 18:24 10°827'29 4.31169 AU behind sun end -4184 Nov 26 j 10:37 4°M 45'12 direct -4189 Feb 01 j 18:37 5°823'16 max. Earth dist4184 Nov 26 j 10:37 4°M 42'46 6.09882 AU								
evening set -4184 Nov 13 j 22:46 1°M.46'12 retrograde -4190 Oct 04 j 07:15 15°825'30 -4190 Oct 04 j 07:15 15°825'30 -4190 Oct 20 j 08:39 15°82 conjunction -4184 Nov 26 j 17:15 4°M.46'39 0°05'46 asc. node -4190 Nov 10 j 08:44 13°815'44 minimum elong -4184 Nov 26 j 17:16 4°M.46'39 0°05'40 opposition -4190 Dec 02 j 20:12 10°826'53 0°03'51 behind sun begin -4184 Nov 26 j 09:32 4°M.42'07 min. Earth dist4190 Dec 02 j 18:24 10°827'29 4.31169 AU behind sun end -4184 Nov 26 j 10:37 4°M.42'46 6.09882 AU direct -4189 Feb 01 j 18:37 5°823'16 max. Earth dist4184 Nov 26 j 10:37 4°M.42'46 6.09882 AU	<i>3</i> - <i>,</i>					-		
retrograde		3			evening set	-		
-4190 Oct 20 j 08:39 15°R\to conjunction -4184 Nov 26 j 17:15 4°\tau4'39 0°05'46 asc. node -4190 Nov 10 j 08:44 13°\to 15'44 minimum elong -4184 Nov 26 j 17:16 4°\tau4'39 0°05'40 opposition -4190 Dec 02 j 20:12 10°\to 26'53 0°03'51 behind sun begin -4184 Nov 26 j 09:32 4°\tau4'07 min. Earth dist. -4190 Dec 02 j 18:24 10°\to 27'29 4.31169 AU behind sun end -4184 Nov 26 j 10:37 4°\tau4'16 6.09882 AU direct -4189 Feb 01 j 18:37 5°\to 23'16 max. Earth dist. -4184 Nov 26 j 10:37 4°\tau4'246 6.09882 AU	retrograde				-	·		
opposition -4190 Dec 02 j 20:12 10°826'53 0°03'51 behind sun begin of the sun begin of the sun end of the sun					conjunction	-4184 Nov 26 j 17:15	4°M46'39	0°05'46
min. Earth dist.	asc. node	-4190 Nov 10 j 08:44	13° 8 15'44		minimum elong	-4184 Nov 26 j 17:16	4°M46'39	0°05'40
direct -4189 Feb 01 j 18:37 5°\(23'16 \) max. Earth dist4184 Nov 26 j 10:37 4°\(\mathbb{M}\)42'46 6.09882 AU	opposition			0°03'51	behind sun begin	-4184 Nov 26 j 09:32		
·	min. Earth dist.	-		4.31169 AU		•		
-4189 Apr 29 j 08:02 15° ♂ morning rise -4184 Dec 09 j 13:48 7° M .48'21	direct					3		6.09882 AU
		-4189 Apr 29 j 08:02	15° ∀		morning rise	-4184 Dec 09 j 13:48	7° M 48'21	

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 20 Attention, astronomical year style is used: The year -4183 in astronomical counting style is the year 4184 BCE in historical counting style.

Attention, astronom	ical year style is used: Tl	ne year -4183	in astronomical cou	inting style is the year	4184 BCE in historical of	counting style.	
	-4183 Jan 10 j 08:49	15° ™		retrograde	-4178 Oct 08 j 16:19	19° 8 58'11	
desc. node	-4183 Jan 11 j 12:29	15°M14'48		opposition	-4178 Dec 07 j 06:22	15° 8 00'04	0°13'19
retrograde	-4183 Apr 18 j 12:07			min. Earth dist.	-4178 Dec 07 j 06:59		4.32119 AU
opposition	-4183 Jun 18 j 08:01	22° M $_{2}7'02$	0°-29'-30		-4178 Dec 07 j 06:35	15° ₹ 8	
min. Earth dist.	-4183 Jun 18 j 02:27	22°M28'51	4.05725 AU	direct	-4177 Feb 06 j 08:52	9° 8 56'21	
direct	-4183 Aug 16 j 11:51				-4177 Apr 07 j 17:28		
	-4183 Nov 19 j 17:40	0° ∡ ¹		evening set	-4177 Jun 14 j 06:38		
evening set	-4183 Dec 18 j 14:22	6° ≯ 38'01			-4177 Jun 23 j 01:17	$\Pi^{\circ}0$	
	4102 D 21:15 46	00 744122	00 421 45		4177 1 27:15 46	101100142	0021120
conjunction minimum elong	-4183 Dec 31 j 15:46 -4183 Dec 31 j 15:42	9° ₹ 44'33 9° ₹ 44'31	0°-42'-45 0°42'57	conjunction minimum elong	-4177 Jun 27 j 15:46 -4177 Jun 27 j 15:44	1° Ⅱ 00'43 1° Ⅱ 00'41	0°31'39 0°31'49
max. Earth dist.	-4182 Jan 01 j 11:23	9° × ¹ 56'16	6.02849 AU	max. Earth dist.	-4177 Jun 27 j 02:49	0° Д 53'36	6.35645 AU
morning rise	-4182 Jan 13 j 20:20		0.0204) AO	morning rise	-4177 Jul 10 j 21:38	3° П 55'04	0.55045 AO
morning rise	-4182 Apr 10 j 12:15	0° ਰ		retrograde	-4177 Nov 08 j 15:40		
retrograde	-4182 May 25 j 18:21	3° ⋜ 06'08		opposition	-4176 Jan 07 j 14:11		1°14'08
	-4182 Jul 10 j 04:13			min. Earth dist.	-4176 Jan 08 j 05:48		
min. Earth dist.	-4182 Jul 24 j 05:12		4.01581 AU	direct	-4176 Mar 09 j 17:22		
opposition	-4182 Jul 25 j 02:33	28° ₹ '03'19	-1°-34'-9	evening set	-4176 Jul 15 j 11:40		
direct	-4182 Sep 21 j 08:36	23° ₹ ¹09'29			-4176 Jul 19 j 17:51	0∘ ©	
	-4182 Nov 27 j 10:43	ರ°0		max. Earth dist.	-4176 Jul 27 j 02:22	1° © 36'51	6.38844 AU
evening set	-4181 Jan 23 j 21:10	12° る 25'45					
				conjunction	-4176 Jul 28 j 11:20		1°07'03
conjunction	-4181 Feb 06 j 06:00			minimum elong	-4176 Jul 28 j 11:17	1° 9 54'56	1°07'14
minimum elong	-4181 Feb 06 j 05:57			morning rise	-4176 Aug 10 j 07:51	4°छ44'10	
max. Earth dist.	-4181 Feb 07 j 23:15		6.01854 AU	retrograde	-4176 Dec 08 j 16:11		
morning rise	-4181 Feb 19 j 17:58			opposition	-4175 Feb 07 j 01:16		1°53'22
	-4181 Apr 11 j 19:47	0° ≈		min. Earth dist.	-4175 Feb 08 j 04:05		4.38482 AU
retrograde	-4181 Jul 01 j 12:20	8°≈59'49	4.04004.411	direct	-4175 Apr 10 j 16:30		
min. Earth dist.	-4181 Aug 29 j 02:12	4°≈04'42	4.04004 AU	evening set	-4175 Aug 15 j 19:19		
opposition	-4181 Aug 30 j 07:19	3°≈54'48	-2°-3'-14	may Earth dist	-4175 Aug 16 j 16:52	0°Ω 2°Ω12/52	6 26512 ATT
direct	-4181 Oct 02 j 18:03 -4181 Oct 27 j 08:31	30 KO 28°る58'15		max. Earth dist.	-4175 Aug 26 j 18:39	2 6613 33	6.36513 AU
direct	-4181 Nov 21 j 01:36	28 3 38 13 0° ≈		conjunction	-4175 Aug 28 j 11:21	2° Ω 36'30	1°23'24
	-4180 Feb 16 j 01:18			minimum elong	-4175 Aug 28 j 11:20	2° Ω 36'30	
evening set	-4180 Feb 29 j 21:41			morning rise	-4175 Sep 10 j 00:41	5° Ω 23'43	1 23 33
	,				-4175 Oct 26 j 13:43		
conjunction	-4180 Mar 14 j 12:45	21° ≈ 21'03	-1°-20'-42	retrograde	-4174 Jan 09 j 11:43		
minimum elong	-4180 Mar 14 j 12:47			opposition	-4174 Mar 11 j 08:02		2°01'04
max. Earth dist.	-4180 Mar 16 j 09:59	21° ≈ 47'24	6.07336 AU	min. Earth dist.	-4174 Mar 12 j 13:46	17° Ω 42′05	4.33541 AU
morning rise	-4180 Mar 28 j 06:09	24° ≈ 32'22			-4174 Apr 04 j 07:21	15°R Ω	
	-4180 Apr 21 j 10:44	0°)		direct	-4174 May 12 j 18:27	12° Ω 52'16	
retrograde	-4180 Aug 04 j 15:05	14°) €06'05			-4174 Jun 20 j 00:38	15° Ω	
min. Earth dist.	-4180 Oct 02 j 00:34	9° ₩ 10'22	4.11967 AU		-4174 Sep 11 j 16:59	0° m	
opposition	-4180 Oct 03 j 02:57	9° ₩ 01'21	-1°-46'-14	evening set	-4174 Sep 15 j 22:06	0° m 56′35	
direct	-4180 Nov 30 j 18:45	4°) €01'26		max. Earth dist.	-4174 Sep 26 j 19:06	3° m 23'58	6.29290 AU
evening set	-4179 Apr 06 j 10:36	22° 升 55′12			41746 20:10.20	20 m 46117	1015150
conjunction	4170 4 20:05:07	26°) €02'45	0°-56'-13	conjunction minimum elong	-4174 Sep 28 j 10:29 -4174 Sep 28 j 10:31	3° Mp 46'17 3° Mp 46'18	1°15'58 1°16'04
minimum elong	-4179 Apr 20 j 05:07 -4179 Apr 20 j 05:11	26° X 02'48	0°56'15	morning rise	-4174 Sep 28 j 10:31 -4174 Oct 10 j 21:53	6° Mp 35'37	1-1604
max. Earth dist.	-4179 Apr 20 j 05:11	26°\(\frac{1}{22'21}\)	6.17132 AU	retrograde	-4173 Feb 11 j 21:16	24° m) 33'18	
morning rise	-4179 May 03 j 23:38	29° H 10'08	0.17132 AO	opposition	-4173 Apr 13 j 23:02	19° m 40'34	1°33'10
morning rise	-4179 May 07 j 16:20	0°Υ		min. Earth dist.	-4173 Apr 14 j 23:59	19° m/32'37	4.24431 AU
retrograde	-4179 Sep 06 j 22:53	17° Ƴ 46'29		direct	-4173 Jun 14 j 14:30	14° Mp 44'07	
opposition	-4179 Nov 05 j 07:59	12° Ƴ 44'31	0°-53'-39		-4173 Oct 03 j 23:38	0∘ <u>⊽</u>	
min. Earth dist.	-4179 Nov 04 j 17:24	12° Ƴ 49'27	4.22517 AU	evening set	-4173 Oct 17 j 14:43	3° Ω 05'42	
direct	-4178 Jan 04 j 03:50	7° Ƴ 42'00		max. Earth dist.	-4173 Oct 29 j 03:29	5° ≏ 45'37	6.19106 AU
evening set	-4178 May 11 j 15:57	26° Ƴ 11'14			-		
				conjunction	-4173 Oct 30 j 04:47	6° ≏ 00'17	0°45'18
conjunction	-4178 May 25 j 08:13	29° Y 13′29	0°-13'-47	minimum elong	-4173 Oct 30 j 04:50	6° ჲ 00′18	0°45'17
minimum elong	-4178 May 25 j 08:14	29° Y 13′29	0°13'44	morning rise	-4173 Nov 11 j 19:24	8° £ 55'22	
behind sun begin	-4178 May 25 j 04:01	29° Y 11′09		retrograde	-4172 Mar 17 j 23:37	27° Ω 45'30	
behind sun end	-4178 May 25 j 12:27	29°Υ15'49	() = (opposition	-4172 May 18 j 02:03	22° Ω 49'52	0°34'05
max. Earth dist.	-4178 May 25 j 18:45	29° Y 19'19	6.27675 AU	min. Earth dist.	-4172 May 18 j 12:21	22° Ω 46'33	4.13806 AU
	-4178 May 28 j 19:53	0°8		direct	-4172 Jul 17 j 09:48	17° Ω 55'55	
morning rise	-4178 Jun 07 j 22:43	2° 8 14'38		ovenina ast	-4172 Oct 20 j 07:07	0°M 6°M 20152	
asc node	-4178 Aug 11 j 16:29 -4178 Sep 20 j 08:23	15° 8 19° 8 25'19		evening set desc. node	-4172 Nov 18 j 16:01 -4172 Nov 21 j 13:36	6°M39'53 7°M20'45	
asc. node	-41/0 SEP 20 J U8.23	17 023 19		uese. Hout	-41/2 NOV 21 J 13.30	/ 1162043	

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4172 in astronomical counting style is the year 4173 BCE in historical counting style. -4172 Dec 01 j 11:15 9°M41'01 0°-1'-16 behind sun end -4166 May 30 j 10:21 3°**8**56'52 conjunction -4172 Dec 01 j 11:14 9°ML41'01 -4166 May 30 j 10:34 3°**8**56'59 minimum elong 0°01'23 max Earth dist 6.28696 AU -4172 Dec 01 j 03:10 -4166 Jun 12 j 16:16 behind sun begin 9°M,36'16 morning rise 6°**8**53'01 9°M45'46 -4166 Jul 21 j 07:21 15°8 behind sun end -4172 Dec 01 j 19:19 max. Earth dist. -4166 Jul 31 j 07:47 -4172 Dec 01 j 08:01 9°**™**39'10 6.09045 AU asc. node 16°**8**53'11 morning rise -4172 Dec 14 j 08:45 12°M43'31 retrograde -4166 Oct 13 j 02:45 24°**8**31'32 -4166 Dec 11 j 16:45 19°**8**33'59 -4172 Dec 24 j 03:06 15°M opposition 0°22'39 -4171 Mar 14 j 11:59 0°**∡** min. Earth dist. -4166 Dec 11 j 19:39 19°**8**33'02 4.32965 AU 2°**х** 26′12 retrograde -4171 Apr 23 j 15:09 -4165 Jan 24 j 03:26 15°**₹**8 -4171 Jun 02 j 22:18 30°R,ML direct -4165 Feb 10 j 23:36 14°**8**30'15 opposition -4171 Jun 23 j 10:01 27°M26'39 0°-39'-37 -4165 Feb 28 j 22:43 15°**8** -4165 Jun 06 j 18:27 min. Earth dist. -4171 Jun 23 j 02:38 27°M29'05 4.05155 AU $\Pi^{\circ}0$ -4165 Jun 18 j 21:24 direct -4171 Aug 21 j 11:16 22°M-33'41 evening set 2°**Ⅲ**36'57 -4171 Oct 31 j 05:15 0°**∡**¹ evening set -4171 Dec 23 j 12:18 11° ₹38'51 conjunction -4165 Jul 02 j 05:15 5°**Ⅲ**32'12 0°37'30 minimum elong -4165 Jul 02 j 05:13 5°**Ⅲ**32′10 0°37'39 conjunction -4170 Jan 05 j 14:43 14°**х** 45'54 0°-48'-38 max. Earth dist. -4165 Jul 01 j 12:58 5°**Ⅲ**23'15 6.36241 AU minimum elong -4170 Jan 05 j 14:39 14°**⊀** 45'52 0°48'50 morning rise -4165 Jul 15 j 09:55 8°**Ⅲ**25'48 max. Earth dist. -4170 Jan 06 j 13:59 14°**₹** 59'46 6.02592 AU retrograde -4165 Nov 13 j 00:16 25° **II** 33'55 morning rise -4170 Jan 18 j 20:15 17° ₹ 54'44 opposition -4164 Jan 12 j 00:24 20° **II** 39'50 1°21'16 -4170 Mar 15 j 06:52 0°궁 min. Earth dist. -4164 Jan 12 j 17:25 20°**Ⅲ**34'17 4.38302 AU retrograde -4170 May 30 j 21:07 8°る09'21 direct -4164 Mar 14 i 05:54 15°**Ⅱ**36'32 min. Earth dist. -4170 Jul 29 j 04:29 3°る13'46 4.01696 AU -4164 Jul 03 i 11:32 0ಂತಾ opposition -4170 Jul 30 i 03:05 3°**ට**06'11 -1°-40'-41 -4164 Jul 19 j 22:53 3°532'14 evening set -4170 Aug 24 j 06:16 30°R ✓ -4170 Sep 26 j 07:17 28° ₹ 12'06 -4164 Aug 01 j 21:23 6°922'28 1°10'39 direct conjunction -4170 Oct 29 j 04:13 -4164 Aug 01 j 21:20 1°10'51 0°ನ minimum elong 6°922'26 -4169 Jan 28 j 22:30 17°る28'28 -4164 Jul 31 j 12:17 max. Earth dist. 6°904'15 6.38869 AU evening set morning rise -4164 Aug 14 j 16:32 9°9511'07 -4169 Feb 11 j 08:06 20°る38'44 -1°-18'-33 -4164 Dec 13 j 01:47 26°5014'07 conjunction retrograde -4169 Feb 11 j 08:04 20°중38'43 1°18'45 -4163 Feb 11 j 12:59 21°522'12 1°56'30 opposition minimum elong -4163 Feb 12 j 16:18 21°513'28 max. Earth dist. -4169 Feb 13 j 00:54 21°る02'54 6.02292 AU min. Earth dist. 4.38195 AU -4169 Feb 24 j 21:05 23°る50'39 direct -4163 Apr 15 j 04:35 16°9520'39 morning rise -4169 Mar 23 j 19:06 -4163 Jul 31 j 10:39 0°**≈** 0 $^{\circ}$ Ω -4169 Jul 06 j 09:33 13°≈59'47 -4163 Aug 20 j 04:35 retrograde evening set 4°**Ω**16'14 -4169 Sep 02 j 22:51 max. Earth dist. -4163 Aug 31 j 01:20 min. Earth dist. 9°**≈**04'38 4.04733 AU 6°**Ω**40'55 6.35897 AU -4169 Sep 04 j 04:08 opposition 8°**≈**54'39 -2°-3'-35 direct -4169 Nov 01 j 06:01 3°≈57'38 conjunction -4163 Sep 01 j 19:40 7°Ω04'29 1°23'49 -4168 Jan 29 j 07:30 15°≈ minimum elong -4163 Sep 01 j 19:39 7°**Ω**04'29 1°23'57 evening set -4168 Mar 05 j 23:07 23°≈08'50 morning rise -4163 Sep 14 j 08:33 9°**Ω**51'42 -4163 Oct 08 j 03:08 15°**Ω** -4168 Mar 19 j 15:04 26°≈19'07 -1°-18'-54 -4162 Jan 14 j 02:29 $27^{\circ}\Omega$ 14'33 conjunction retrograde -4168 Mar 19 j 15:06 26°≈19'08 1°19'01 -4162 Mar 15 j 23:19 $22^{\circ}\Omega 22'58$ $1^{\circ}59'15$ minimum elong opposition -4168 Mar 21 j 12:20 26°≈45'26 min. Earth dist. -4162 Mar 17 j 05:26 22° **Ω**13'23 4.32607 AU max. Earth dist. 6.08305 AU -4168 Apr 02 j 08:47 29°≈30'10 direct -4162 May 17 j 08:33 17°**Ω**23'57 morning rise -4168 Apr 04 i 12:40 0°₩ -4162 Aug 26 i 05:14 0°m retrograde -4168 Aug 09 i 09:18 18°\(\frac{1}{2}\)57'40 evening set -4162 Sep 20 i 07:25 5° m 29'40 opposition -4168 Oct 07 i 19:17 13° ¥53'15 -1°-40'-40 max. Earth dist. -4162 Oct 01 j 06:36 7° m 58'39 6.28111 AU min. Earth dist. -4168 Oct 06 j 18:52 14°\tag{01'35} 4.13069 AU direct -4168 Dec 05 j 14:26 8°¥52'58 -4162 Oct 02 j 19:53 8° mo 19'50 1°12'58 conjunction -4167 Apr 11 j 09:50 27° ¥ 44'37 -4162 Oct 02 j 19:56 8° m 19'51 1°13'03 evening set minimum elong -4167 Apr 21 j 09:09 $0^{\circ}\Upsilon$ -4162 Oct 15 j 07:18 11° m 09'42 morning rise -4161 Feb 16 j 15:43 29° m 13'33 retrograde -4161 Apr 18 j 18:45 24° Mp 20'28 conjunction -4167 Apr 25 j 04:22 0°Υ′51'43 0°-51'-4 opposition 1°26'30 minimum elong -4167 Apr 25 j 04:26 0°**Υ**51'46 0°51'05 min. Earth dist. -4161 Apr 19 j 17:53 24° Mp 13'06 4.23063 AU -4161 Jun 19 j 05:42 19° **m** 24'24 max. Earth dist. -4167 Apr 26 j 11:30 1°**Y**09'22 6.18290 AU direct -4167 May 08 j 22:51 3°**Y**58'34 -4161 Sep 16 j 16:23 0∘Ω morning rise -4167 Sep 11 j 10:20 22°**Y**28'11 -4161 Oct 22 j 03:30 retrograde evening set 7°**£**48'36 -4167 Nov 09 j 20:17 17°**Υ**26'42 0°-44'-41 opposition -4167 Nov 09 j 07:05 17°**Υ**31'10 -4161 Nov 03 j 17:58 10°**£**43'58 min. Earth dist. 4.23635 AU conjunction 0°39'28 -4166 Jan 08 j 19:41 12°**Υ**23'56 direct minimum elong -4161 Nov 03 j 18:00 10°**Ω**44'00 0°39'26 -4166 May 12 j 14:08 0° 8 max. Earth dist. -4161 Nov 02 j 18:24 10°**2**30'17 6.17667 AU evening set -4166 May 16 j 11:06 0°**8**51'06 morning rise -4161 Nov 16 j 09:25 13°**♀**40'02 -4160 Feb 10 j 02:00 0° M conjunction -4166 May 30 j 02:46 3°**8**52'40 0°-7'-18 retrograde -4160 Mar 23 j 01:12 2°M37'43 -4166 May 30 j 02:46 3°**8**52'40 0°07'13 -4160 May 04 j 10:41 30°R ₽

minimum elong behind sun begin

-4166 May 29 j 19:11

3°**8**48'29

opposition

-4160 May 23 j 02:18 27°**2**41'32 0°24'06

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4160 in astronomical counting style is the year 4161 BCE in historical counting style. -4160 May 23 j 10:53 27°**2**38'46 4.12381 AU min. Earth dist. -4154 Apr 25 i 10:50 0°8 direct -4160 Jul 22 j 06:20 22°**£**47'45 -4154 May 21 j 07:01 5°**8**32'22 evening set -4160 Sep 30 j 17:43 oom. -4160 Oct 01 j 04:34 -4154 Jun 03 j 21:46 8°**8**32'51 desc. node 0°M05'01 conjunction 0°00'-43 -4160 Nov 23 j 10:18 11°M 35'06 -4154 Jun 03 j 21:47 8°**8**32'52 0°00'36 evening set minimum elong -4154 Jun 03 j 13:31 8°**8**28'18 behind sun begin -4160 Dec 06 j 06:36 14°M237'14 0°-8'-16 -4154 Jun 04 j 06:04 conjunction behind sun end 8°**8**37'25 -4160 Dec 06 j 06:35 14°M37'13 -4154 Jun 04 j 03:11 minimum elong 0°08'25 max. Earth dist. 8°**8**35'49 6.30392 AU -4154 Jun 09 j 23:59 behind sun begin -4160 Dec 05 j 23:28 14°M33'02 asc. node 9°**8**53'47 -4154 Jun 17 j 10:08 11°832'01 behind sun end -4160 Dec 06 j 13:42 14°M41'25 morning rise max. Earth dist. -4160 Dec 06 j 07:24 14° M 37'42 6.07779 AU -4154 Jul 03 j 09:55 15°**8** -4154 Oct 17 j 10:14 29°803'18 -4160 Dec 07 j 21:03 15°M retrograde -4154 Dec 16 j 02:46 24°806'17 morning rise -4160 Dec 19 j 05:10 17° 11.40'46 opposition 0°31'43 -4159 Feb 14 j 11:03 0°**∡**¹ min. Earth dist. -4154 Dec 16 j 06:43 24°804'58 4.34513 AU 19°**8**02'32 retrograde -4159 Apr 28 j 20:19 7°**х¹**29'53 direct -4153 Feb 15 j 13:04 opposition -4159 Jun 28 j 13:16 2°**х** 29′50 0°-49'-38 -4153 May 20 j 13:02 $0^{\circ}II$ min. Earth dist. -4159 Jun 28 j 03:42 2°**∡**32'59 4.04180 AU evening set -4153 Jun 23 j 10:40 7°**I**105′13 -4159 Jul 18 j 11:33 30°RML direct -4159 Aug 26 j 10:17 27°M36'50 conjunction -4153 Jul 06 j 17:05 9°**Ⅱ**59'21 0°42'59 -4159 Oct 03 j 19:10 0°×7 minimum elong -4153 Jul 06 j 17:02 9°**Ⅱ**59'19 0°43'09 evening set -4159 Dec 28 j 13:04 16° ₹ 44'58 max. Earth dist. -4153 Jul 05 j 22:13 9°**Ⅱ**49'00 6.37519 AU morning rise -4153 Jul 19 j 20:15 12°**Д**51'49 conjunction -4158 Jan 10 j 16:23 19° ₹ 52'43 0°-54'-17 retrograde -4153 Nov 17 і 06:50 29°**Д**55'44 minimum elong -4158 Jan 10 j 16:20 19° ₹ 52'41 0°54'28 opposition -4152 Jan 16 j 08:18 25° **I**I 02'05 1°27'38 max. Earth dist. -4158 Jan 11 j 17:20 20° ₹07'36 6.01969 AU min. Earth dist. -4152 Jan 17 j 03:37 24° **I** 55'49 4.39225 AU -4158 Jan 23 j 23:12 23° ₹02'19 direct -4152 Mar 18 j 17:19 19°**Д**58'59 morning rise -4158 Feb 23 j 08:18 -4152 Jun 16 j 08:40 0ಂತಾ ೧೦೯ -4158 Jun 05 j 01:42 13°る19'30 -4152 Jul 24 j 06:30 retrograde evening set 7°952'02 -4158 Aug 03 j 05:43 max. Earth dist. -4152 Aug 04 j 15:22 10°521'33 min. Earth dist. 8°る24'11 4.01508 AU 6.39328 AU -4158 Aug 04 j 06:16 8°**る**15'55 -1°-46'-38 opposition -4158 Oct 01 j 08:29 -4152 Aug 06 j 03:42 10°5541'32 1°13'42 direct 3°**る**21'29 conjunction -4157 Feb 03 j 03:41 22°♂39'08 -4152 Aug 06 j 03:39 10°5541'30 minimum elong 1°13'54 evening set -4152 Aug 18 j 21:46 13°529'32 morning rise -4157 Feb 16 j 14:29 25°**ठ**49'47 -1°-20'-30 -4152 Nov 28 j 20:34 conjunction 0 $^{\circ}$ Ω -4157 Feb 16 j 14:28 25°정49'46 1°20'41 -4152 Dec 17 j 08:14 minimum elong retrograde 0°**Ω**32'14 6.02559 AU -4157 Feb 18 j 10:06 26° ₹ 15'35 -4151 Jan 04 j 20:24 30° R 55 max. Earth dist. -4157 Mar 02 j 04:12 29°**궁**01'54 -4151 Feb 15 j 21:15 25°540'28 1°58'47 morning rise opposition -4157 Mar 06 j 07:35 0°≈ min. Earth dist. -4151 Feb 17 j 01:46 25°531'20 4.38170 AU -4157 May 20 j 03:55 15°≈ direct -4151 Apr 19 j 12:52 20°539'09 retrograde -4157 Jul 11 j 12:28 19°≈08'03 -4151 Jul 14 j 07:35 $0^{\circ}\Omega$ -4157 Sep 02 j 03:54 15°R≈ evening set -4151 Aug 24 j 09:17 8°**£**34'18 min. Earth dist. -4157 Sep 07 j 23:37 14°≈12'42 4.05437 AU max. Earth dist. -4151 Sep 04 j 05:46 10° **Ω**59'01 6.35375 AU -4157 Sep 09 j 04:19 14°≈02'54 opposition -4157 Nov 06 j 07:29 9°**≈**05'31 -4151 Sep 05 j 23:46 11° Ω 22'27 1°23'43 direct conjunction -4156 Jan 07 j 16:20 15°≈ -4151 Sep 05 j 23:46 $11^{\circ}\Omega$ 22'27 minimum elong -4156 Mar 11 i 05:02 28°≈15'30 -4151 Sep 18 j 11:57 $14^{\circ}\Omega$ 09'38 evening set morning rise -4156 Mar 18 i 17:52 0°**)**€ -4151 Sep 22 i 07:02 15°Ω -4151 Dec 17 i 01:06 0° m conjunction -4156 Mar 24 i 21:35 1°**升**25'36 -1°-16'-26 retrograde -4150 Jan 18 j 12:23 1° m 36'12 minimum elong -4156 Mar 24 i 21:38 1°\mathbf{\pm}25'38 1°16'33 -4150 Feb 20 j 05:12 30°RΩ max. Earth dist. opposition -4156 Mar 26 j 17:54 1°**X**51'16 6.09401 AU -4150 Mar 20 j 10:26 $26^{\circ}\Omega$ 44'35 $1^{\circ}56'49$ -4156 Apr 07 j 15:53 4°**)**(36'22 min. Earth dist. -4150 Mar 21 j 16:58 $26^{\circ}\Omega$ 34'53 4.31607 AU morning rise -4156 Aug 14 j 04:11 23° **∺** 56'34 direct -4150 May 21 j 17:32 21° **Ω**45'56 retrograde opposition -4156 Oct 12 j 14:29 18° ¥ 52'30 -1°-34'-15 -4150 Aug 08 j 11:23 min. Earth dist. -4156 Oct 11 j 13:59 19° **★** 00'51 4.14471 AU evening set -4150 Sep 24 j 13:04 9° m 53'43 direct -4156 Dec 10 j 12:18 13° ¥ 51'52 max. Earth dist. -4150 Oct 05 j 11:04 12° m 22'34 6.26701 AU $0^{\circ}\Upsilon$ -4155 Apr 04 j 12:20 -4155 Apr 16 j 12:03 2°Y40'10 -4150 Oct 07 j 01:25 12° mp 44'26 1°09'38 evening set conjunction -4150 Oct 07 j 01:28 12° m 44'27 1°09'42 minimum elong -4155 Apr 30 j 06:32 5°Y46'34 0°-45'-28 -4150 Oct 19 j 13:16 15° m 35'02 conjunction morning rise -4155 Apr 30 j 06:35 5°**Y**46'36 minimum elong 0°45'28 -4149 Jan 01 j 13:01 0∘**⊽** max. Earth dist. -4155 May 01 j 11:21 6°**Y**02'51 6.19932 AU retrograde -4149 Feb 21 j 08:41 3°**2**46'18 morning rise -4155 May 14 j 00:36 8°**Y**52'32 -4149 Apr 14 j 14:42 30°R, Mg retrograde -4155 Sep 16 j 01:12 27°**Υ**13'33 opposition -4149 Apr 23 j 11:03 28° **m** 52'53 1°19'32 opposition -4155 Nov 14 j 10:39 22°**Υ**12'38 0°-35'-19 min. Earth dist. -4149 Apr 24 j 09:29 28° Mp 45'42 4.21315 AU min. Earth dist. -4155 Nov 13 j 23:45 22°**Υ**16'18 direct -4149 Jun 23 j 17:52 23° m 57'04 4.25363 AU

-4149 Aug 27 j 20:52

-4154 Jan 13 j 15:47 17°**Υ**09'41

direct

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4149 in astronomical counting style is the year 4150 BCE in historical counting style. conjunction -4149 Oct 26 j 13:29 12°**£**25'40 -4143 May 05 j 08:27 10°**Υ**41'09 0°-39'-30 evening set -4149 Nov 07 j 08:15 15°**♀**10'11 6.15751 AU -4143 May 05 j 08:30 10°**Υ**41'11 max. Earth dist. minimum elong 0°39'30 -4143 May 06 j 11:32 10°**Y**56′24 max. Earth dist. 6.21656 AU -4143 May 19 j 01:55 13°**Y**46'08 -4149 Nov 08 j 04:50 15°**2**22'11 0°33'33 conjunction morning rise -4143 Aug 16 j 05:28 -4149 Nov 08 j 04:52 15°**Ω**22'13 0°33'31 minimum elong 0°X -4143 Sep 20 j 13:28 -4149 Nov 20 j 21:05 morning rise 18°**≏**19'27 retrograde 1°**8**58'17 -4143 Oct 25 j 16:48 -4148 Jan 14 j 16:47 0°M 30°**Ŗ**Υ opposition 26°**Y**57′50 0°-25'-41 retrograde -4148 Mar 28 j 01:02 7°M26'41 -4143 Nov 19 j 00:36 -4143 Nov 18 j 14:50 27° **Y**01'08 opposition -4148 May 28 j 00:51 2°M30'04 0°14'10 min. Earth dist. 4.27029 AU min. Earth dist. -4148 May 28 j 07:40 2°M27'52 4.10451 AU direct -4142 Jan 18 j 09:15 21°**Υ**54'39 -4148 Jun 17 j 07:57 30°**Ŗ**Ω -4142 Apr 06 j 03:59 0°8 direct -4148 Jul 26 j 23:40 27°**₽**36'31 asc. node -4142 Apr 18 j 12:50 2°**8**20'10 -4142 May 26 j 02:47 10°**8**13'13 desc. node -4148 Aug 12 j 07:14 28°**♀**02'31 evening set -4148 Sep 03 j 22:43 0°M -4148 Nov 21 j 19:46 15°M conjunction -4142 Jun 08 j 16:25 13°**8**12'39 0°05'59 evening set -4148 Nov 28 j 04:05 16°M29'25 minimum elong -4142 Jun 08 j 16:25 13°**8**12'39 0°06'06 behind sun begin -4142 Jun 08 j 08:36 13°**8**08'21 conjunction -4148 Dec 11 j 01:16 19°M232'45 0°-15'-5 behind sun end -4142 Jun 09 j 00:14 13°**8**16'56 minimum elong -4148 Dec 11 j 01:15 19°MJ32'44 0°15'14 max. Earth dist. -4142 Jun 08 j 17:09 13°**8**13'02 6.31860 AU behind sun begin -4148 Dec 10 j 22:24 19° ML31'03 -4142 Jun 16 j 18:58 15°8 behind sun end -4148 Dec 11 j 04:05 19° M 34'25 morning rise -4142 Jun 22 j 03:40 16°810'43 max. Earth dist. -4148 Dec 11 i 04:04 19° M.34'24 6.06004 AU -4142 Sep 03 i 00:14 $\Pi^{\circ}0$ morning rise -4148 Dec 24 i 01:13 22°M 37'39 retrograde -4142 Oct 21 i 20:55 3°**Ⅱ**35'57 -4147 Jan 25 i 10:38 -4142 Dec 10 i 06:00 30°R8 0°**√** retrograde -4147 May 04 j 01:23 12° ₹35'17 opposition -4142 Dec 20 j 13:41 28°\(\begin{center} 239'26 \] 0°40'44 -4147 Jul 03 j 16:29 min. Earth dist. -4142 Dec 20 j 20:56 28°**8**37'03 opposition 7° 🗷 34'39 0°-59'-11 4.35666 AU -4147 Jul 03 j 03:52 direct -4141 Feb 20 j 04:58 23°**8**35'40 min Earth dist 7°**₹**38'49 4.02749 AU -4147 Aug 31 j 09:04 -4141 Apr 30 j 08:32 direct 2° ×741'34 $\Pi^{\circ}0$ -4146 Jan 02 j 15:05 21° ₹ 54'29 -4141 Jun 28 j 00:28 11°**Д**35'40 evening set evening set max. Earth dist. -4141 Jul 10 j 08:02 14°**Ⅲ**17'07 6.38251 AU -4146 Jan 15 j 19:45 25° **₹**'03'13 0°-59'-27 conjunction -4146 Jan 15 j 19:41 25° **₹**03'10 0°59'39 -4141 Jul 11 j 05:38 14°**Ⅲ**28'57 conjunction 0°48'21 minimum elong -4146 Jan 17 j 01:47 25°**尽** 21'09 -4141 Jul 11 j 05:35 14°**Д**28'55 max. Earth dist. 6.01020 AU minimum elong 0°48'32 -4146 Jan 29 j 03:36 28° **₹** 13'42 -4141 Jul 24 j 07:22 17°**Ⅲ**20'33 morning rise morning rise -4146 Feb 05 j 16:06 0°る -4141 Sep 28 j 02:36 0ಂತಾ -4146 Jun 10 j 09:22 18°₹34'11 -4141 Nov 21 j 14:38 retrograde retrograde 4°9522'22 -4146 Aug 08 j 09:07 13°중38'48 4.01164 AU -4140 Jan 16 j 18:49 30°RⅡ min. Earth dist. opposition -4146 Aug 09 j 10:39 13°**궁**30'11 -1°-51'-42 opposition -4140 Jan 20 j 18:37 29°**Д**29'03 1°33'48 -4146 Oct 06 j 11:34 8°₹35'24 min. Earth dist. -4140 Jan 21 j 15:05 29°**Ⅲ**22'25 4.39519 AU direct -4145 Feb 08 j 10:59 27°₹54'40 direct -4140 Mar 23 j 04:25 24°**II**26'06 evening set -4145 Feb 17 j 07:39 -4140 May 26 j 14:16 -4140 Jul 28 j 16:53 12°518'34 evening set -4145 Feb 21 j 22:44 1°≈05'37 -1°-21'-45 max. Earth dist. -4140 Aug 08 j 23:10 14°546'51 conjunction 6.39150 AU -4145 Feb 21 j 22:43 1°≈05'37 1°21'56 minimum elong -4145 Feb 23 j 20:01 -4140 Aug 10 j 12:52 15°507'37 1°16'30 max. Earth dist. 1°≈32'21 6.02822 AU conjunction morning rise -4145 Mar 07 i 13:31 4°≈18'00 minimum elong -4140 Aug 10 j 12:49 15°507'36 1°16'40 -4145 Apr 25 i 07:50 15°≈ morning rise -4140 Aug 23 i 05:48 17°555'14 retrograde -4145 Jul 16 j 13:59 24°≈20'19 -4140 Oct 23 i 22:45 $0^{\circ}\Omega$ min. Earth dist. -4145 Sep 12 j 23:20 19°≈25'21 4.06278 AU retrograde -4140 Dec 21 i 20:16 4°Ω59'47 -4145 Sep 14 i 05:29 19°≈15'03 -2°-1'-22 -4139 Feb 20 j 09:54 0°Ω08'12 2°00'37 opposition opposition -4145 Oct 21 j 23:23 15°R≈ -4139 Feb 21 j 11:36 30°RS direct -4145 Nov 11 j 09:27 14°≈17'07 min. Earth dist. -4139 Feb 21 j 16:06 29°558'34 4.37539 AU -4145 Dec 02 j 00:20 15°≈ direct -4139 Apr 24 j 02:04 25°507'13 -4139 Jun 22 j 18:18 -4144 Mar 01 j 11:03 0°**)**€ 0 $^{\circ}\Omega$ -4144 Mar 16 j 11:53 3°**)**€24'54 evening set -4139 Aug 28 j 18:43 13°**Ω**03'44 evening set -4139 Sep 06 j 11:29 15°**Ω** -4144 Mar 30 j 05:01 conjunction 6°**¥**34'39 -1°-13'-21 max. Earth dist. -4139 Sep 08 j 13:04 15° Ω27'43 6.34325 AU -4144 Mar 30 j 05:04 6°**¥**34'41 1°13'26 minimum elong -4144 Apr 01 j 00:24 6°**¥**59'42 6.10720 AU -4139 Sep 10 j 08:35 15° Ω 52'03 1°23'12 max. Earth dist. conjunction morning rise -4144 Apr 12 j 23:34 9°**)** 44'54 minimum elong -4139 Sep 10 j 08:35 15° Ω 52'03 1°23'20 retrograde -4144 Aug 19 j 00:46 28° **€** 56'38 morning rise -4139 Sep 22 j 20:30 18°**Ω**39'32 min. Earth dist. -4144 Oct 16 j 11:37 24° **★** 00'27 4.16067 AU -4139 Nov 17 j 19:55 0°m opposition -4144 Oct 17 j 10:09 23° **€** 52'46 -1°-27'-4 retrograde -4138 Jan 23 j 04:48 6° m 11'37 direct -4144 Dec 15 j 13:15 18° **★** 51'39 opposition -4138 Mar 25 j 03:48 1° m 19'50 1°53'36

min. Earth dist.

direct

-4138 Mar 26 j 09:33

-4138 Apr 04 j 18:03 30°RΩ

-4138 May 26 j 07:32 26°**Ω**21'35

1° Mp 10'22 4.30206 AU

-4143 Mar 17 j 08:15

-4143 Apr 21 j 14:06

evening set

0° Υ

7°**Y**35'34

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 24 Attention, astronomical year style is used: The year -4138 in astronomical counting style is the year 4139 BCE in historical counting style.

Attention, astronom	ical year style is used: The	he year -4138	in astronomical co	unting style is the year	4139 BCE in historical	counting style	
	-4138 Jul 15 j 17:05			morning rise	-4132 Apr 18 j 03:23		
evening set	-4138 Sep 29 j 00:27				-4132 Jul 04 j 21:54	0 ° $\mathbf{\gamma}$	
max. Earth dist.	-4138 Oct 10 j 01:39	17° m 03'37	6.25084 AU	retrograde	-4132 Aug 23 j 15:55	3° Y 46′27	
					-4132 Oct 12 j 12:43		
conjunction	-4138 Oct 11 j 13:05	17° m 23'53	1°05'42	min. Earth dist.	-4132 Oct 21 j 04:03		
minimum elong	-4138 Oct 11 j 13:08	17° m 23'55	1°05'44	opposition	-4132 Oct 22 j 01:27		-1°-19'-32
morning rise	-4138 Oct 24 j 01:10			direct	-4132 Dec 20 j 07:35		
. 1	-4138 Dec 08 j 18:03	0∘ ʊ		. ,	-4131 Feb 24 j 16:14	0°Υ	
retrograde	-4137 Feb 26 j 08:28	8° £ 34'41	1011127	evening set	-4131 Apr 26 j 11:53	12°°\7'21'08	
opposition	-4137 Apr 28 j 10:25	3° £ 40′59	1°11'36	· · · · · · · · · · · · ·	4121 M 10 : 05.45	1500025151	09 221 20
min. Earth dist.	-4137 Apr 29 j 07:31 -4137 May 31 j 02:19	3° ♀ 34'15 30°Ŗ ₥	4.19588 AU	conjunction minimum elong	-4131 May 10 j 05:45 -4131 May 10 j 05:48		0°-33'-29 0°33'28
direct	-4137 Jun 28 j 13:19	28° Mp 45'40		max. Earth dist.	-4131 May 10 j 03:48		6.23328 AU
direct	-4137 Jul 26 j 19:19	ე∘ 亞		morning rise	-4131 May 23 j 22:46		0.23320 AU
evening set	-4137 Oct 31 j 06:05			morning 1130	-4131 Jul 19 j 08:47	0° 8	
evening set	4157 Oct 51 j 00.05	17 = 10 14		retrograde	-4131 Sep 25 j 00:08	6° 8 34'15	
conjunction	-4137 Nov 12 j 21:59	20° Ω 15'46	0°27'03	opposition	-4131 Nov 23 j 11:14	1° 8 34'20	0°-16'-15
minimum elong	-4137 Nov 12 j 22:01	20° £ 15'47		min. Earth dist.	-4131 Nov 23 j 04:50	1° 8 36'29	4.28459 AU
max. Earth dist.	-4137 Nov 12 j 03:13		6.14085 AU		-4131 Dec 05 j 09:28		
morning rise	-4137 Nov 25 j 15:21			direct	-4130 Jan 23 j 01:03		
S	-4137 Dec 25 j 16:08	0° M .		asc. node	-4130 Feb 26 j 11:53		
retrograde	-4136 Apr 02 j 05:44	12°M29'55			-4130 Mar 12 j 23:04	0°8	
opposition	-4136 Jun 02 j 05:14	7°M32'48	0°03'33	evening set	-4130 May 30 j 18:41	14° 8 46'27	
min. Earth dist.	-4136 Jun 02 j 08:30	7°ML31'44	4.09003 AU	-	-4130 May 31 j 19:25	15° 8	
desc. node	-4136 Jun 21 j 03:42	5°M11'38					
direct	-4136 Jul 31 j 22:59	2°M39'29		conjunction	-4130 Jun 13 j 07:29	17° 8 45'04	0°12'20
	-4136 Nov 04 j 07:35	15° M ₊		minimum elong	-4130 Jun 13 j 07:28	17° 8 45'03	0°12'28
evening set	-4136 Dec 03 j 03:13	21°M36'04		behind sun begin	-4130 Jun 13 j 02:14		
				behind sun end	-4130 Jun 13 j 12:42	17° 8 47'56	
conjunction	-4136 Dec 16 j 01:34	24°M40'21	0°-22'-7	max. Earth dist.	-4130 Jun 13 j 05:31		6.32945 AU
minimum elong	-4136 Dec 16 j 01:32		0°22'17	morning rise	-4130 Jun 26 j 17:24		
max. Earth dist.	-4136 Dec 16 j 10:02		6.04941 AU		-4130 Aug 10 j 22:35	$\Pi^{\circ}0$	
morning rise	-4136 Dec 29 j 02:29			retrograde	-4130 Oct 26 j 03:17	8° Ⅲ 03'06	
	-4135 Jan 07 j 14:42	0° ⊼		opposition	-4130 Dec 24 j 22:08	3° Ⅱ 07'08	0°49'16
retrograde	-4135 May 09 j 11:09		10.01.26	min. Earth dist.	-4130 Dec 25 j 06:57	3° Ⅱ 04'14	4.36353 AU
opposition	-4135 Jul 08 j 23:05		-1°-8'-36	T' A	-4129 Jan 19 j 13:52		
min. Earth dist.	-4135 Jul 08 j 08:38		4.02209 AU	direct	-4129 Feb 24 j 15:18	28° O 03′25	
direct	-4135 Sep 05 j 13:00 -4134 Jan 07 j 19:45			avanina aat	-4129 Apr 02 j 04:07 -4129 Jul 02 j 12:26		
evening set	-4134 Jan 07 j 19:45 -4134 Jan 19 j 18:41	2/* メ ・09'08		evening set	-4129 Jul 02 j 12:26	10°Щ02′27	
	-4134 Jan 19 10.41	0.0		conjunction	-4129 Jul 15 j 16:11	18°π55'05	0°53'20
conjunction	-4134 Jan 21 j 01:18	0° ප 18'16	-1°-4'-18	minimum elong	-4129 Jul 15 j 16:07	18° I 55'03	0°53'31
minimum elong	-4134 Jan 21 j 01:14	0°る18'13	1°04'30	max. Earth dist.	-4129 Jul 14 j 14:29	18° I 41'00	6.38477 AU
max. Earth dist.	-4134 Jan 22 j 10:04	0° る 37'48	6.01031 AU	morning rise	-4129 Jul 28 j 16:44		0.50177110
morning rise	-4134 Feb 03 j 10:19	3° ට 29'11	0.01051110		-4129 Sep 06 j 12:09	0°ಅ	
retrograde	-4134 Jun 15 j 13:38	23° ප් 48'42		retrograde	-4129 Nov 26 j 00:26	8°9547'38	
min. Earth dist.	-4134 Aug 13 j 10:42	18° ප 53'48	4.01763 AU	opposition	-4128 Jan 25 j 04:21	3°954'41	1°39'20
opposition	-4134 Aug 14 j 14:37	18° る 44'22	-1°-55'-53	min. Earth dist.	-4128 Jan 26 j 03:36	3°547'10	4.39299 AU
direct	-4134 Oct 11 j 13:54	13° る 49'14			-4128 Feb 29 j 01:14	30° Ŗ Ⅱ	
	-4133 Jan 31 j 07:03	0° ≈		direct	-4128 Mar 27 j 16:43	28° ∏ 51′56	
evening set	-4133 Feb 13 j 17:14	3° ≈ 06'49			-4128 Apr 24 j 12:18	0ංම	
				evening set	-4128 Aug 02 j 02:35	16°545'21	
conjunction	-4133 Feb 27 j 05:48	6° ≈ 17'37	-1°-22'-24	max. Earth dist.	-4128 Aug 13 j 06:38	19° © 12'44	6.38482 AU
minimum elong	-4133 Feb 27 j 05:48	6° ≈ 17'37	1°22'34				
max. Earth dist.	-4133 Mar 01 j 03:46	6° ≈ 44'41	6.03922 AU	conjunction	-4128 Aug 14 j 21:39	19° © 34'16	1°18'49
morning rise	-4133 Mar 12 j 21:11	9° ≈ 29'44		minimum elong	-4128 Aug 14 j 21:37	19° © 34'15	1°18'59
	-4133 Apr 06 j 00:28	15° ≈		morning rise	-4128 Aug 27 j 13:39	22°521'46	
retrograde	-4133 Jul 21 j 13:30	29°≈25'13		_	-4128 Oct 03 j 00:09	0°N	
min. Earth dist.	-4133 Sep 17 j 22:38	24°≈29'52	4.07744 AU	retrograde	-4128 Dec 26 j 07:44	9° £ 29'49	2001111
opposition	-4133 Sep 19 j 03:33	24°≈19'59	-1°-58'-51	opposition	-4127 Feb 24 j 23:30	4° Ω 38'17	2°01'44
direct	-4133 Nov 16 j 11:23	19° ≈ 21'33		min. Earth dist.	-4127 Feb 26 j 05:13	4° £ 28'48	4.36500 AU
avaning sat	-4132 Feb 12 j 05:14	0° ₩ 8° ₩ 25'20		direct	-4127 Apr 12 j 20:57		
evening set	-4132 Mar 21 j 15:10	8° ∺ 25'20		direct	-4127 Apr 28 j 13:34 -4127 May 14 j 08:59	29° © 37'40 0° Ω	
conjunction	-4132 Apr 04 j 08:48	11°¥31/22	-1°-9'-40		-4127 May 14 J 08:39		
minimum elong	-4132 Apr 04 j 08:52		1°09'54	evening set	-4127 Aug 21 j 08:17 -4127 Sep 02 j 04:52		
max. Earth dist.	-4132 Apr 04 j 08:32			max. Earth dist.	-4127 Sep 02 j 04:32 -4127 Sep 13 j 00:09		6 33001 AII
Zurur dist.	.152.1pi 00 j 05.27	11 /(3) 03	3.12.20110	Dartii dist.	.12, 50p 15 j 00.07	_0 000100	3.55001 110

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4127 in astronomical counting style is the year 4128 BCE in historical counting style. -4127 Sep 14 j 18:17 20° Ω25'14 1°22'07 opposition -4121 Sep 23 i 23:42 29°≈19'40 -1°-55'-34 conjunction -4127 Sep 14 j 18:18 $20^{\circ}\Omega 25'15$ $1^{\circ}22'15$ min. Earth dist. -4121 Sep 22 j 19:13 29°≈29'24 4.09079 AU minimum elong -4127 Sep 27 j 05:53 23°**Ω**13'08 -4121 Nov 21 j 09:12 24°≈20'49 morning rise direct -4120 Jan 21 j 16:49 -4127 Oct 28 j 18:10 0°**)**€ 0° m -4126 Jan 27 j 23:55 -4120 Mar 26 j 17:06 13°**∺**21'20 retrograde 10° m 51'33 evening set opposition -4126 Mar 29 j 23:04 5° m 59'37 1°49'36 min. Earth dist. -4126 Mar 31 j 04:31 5° m 50'16 4.28681 AU conjunction -4120 Apr 09 j 10:59 16°**)** 30′03 direct -4126 May 31 j 00:53 1° Mp 01'50 minimum elong 1°05'56 -4120 Apr 11 j 01:45 evening set -4126 Oct 03 j 13:27 19° m 15'45 max. Earth dist. 16°**¥**52'15 6.13911 AU -4120 Apr 23 j 05:46 max. Earth dist. -4126 Oct 14 j 16:04 21° Mp 48'20 6.23496 AU morning rise 19°**)** 38'56 $0^{\circ}\Upsilon$ -4120 Jun 10 j 22:27 -4126 Oct 16 j 02:16 22° m 07'58 1°01'15 -4120 Aug 28 j 06:28 8°**Y**33'12 conjunction retrograde -4126 Oct 16 j 02:19 22° m 07'59 -4120 Oct 26 j 16:06 minimum elong 1°01'17 opposition 3°**Y**30'09 -1°-11'-37 morning rise -4126 Oct 28 j 14:59 25° M 00'18 min. Earth dist. -4120 Oct 25 j 21:01 3°**Y**36'39 4.19307 AU -4126 Nov 19 j 23:45 0∘**⊽** -4120 Nov 24 j 09:04 30°**₹**₩ retrograde -4125 Mar 03 j 07:58 13°**£**27'23 direct -4120 Dec 25 j 02:35 28°**¥**28'19 opposition -4125 May 03 j 11:11 8°**₽**33'11 1°03'02 -4119 Jan 25 j 05:48 $0^{\circ}\Upsilon$ min. Earth dist. -4125 May 04 j 04:54 8°**≏**27'31 4.18051 AU evening set -4119 May 01 j 09:00 17°**Υ**04'37 direct -4125 Jul 03 j 09:04 3°**₽**38'11 evening set -4125 Nov 04 j 23:41 22°**2**13'47 conjunction -4119 May 15 j 02:40 20°**Υ**'08'39 0°-27'-18 minimum elong -4119 May 15 j 02:42 20°**Υ**08'40 0°27'15 conjunction -4125 Nov 17 i 16:27 25° **2**12'13 0°20'17 max. Earth dist. $-4119 \text{ May } 15 \text{ j } 22:11 \quad 20^{\circ} \Upsilon 19'34$ 6.24712 AU minimum elong -4125 Nov 17 i 16:29 25° **2**12'14 0°20'13 morning rise -4119 May 28 j 18:51 23°Y11'47 max. Earth dist. -4125 Nov 17 i 02:46 25° **2**04'12 6.12748 AU -4119 Jun 29 i 12:49 0°8 morning rise -4125 Nov 30 j 10:39 28°**£**11'40 retrograde -4119 Sep 29 j 10:00 11°809'26 -4125 Dec 08 i 05:33 0°ML -4119 Nov 27 j 21:55 6°810'08 0°-6'-43 opposition -4124 Feb 26 i 03:02 15°M min. Earth dist. -4119 Nov 27 j 17:28 6°**8**11'37 4.29628 AU -4124 Apr 07 j 12:35 17°M 34'16 -4118 Jan 06 j 05:15 1°**8**50'17 asc node retrograde -4124 Apr 30 j 04:07 16°M 46'10 -4118 Jan 27 j 15:07 1°806'40 desc. node direct -4124 May 19 j 04:49 15°RML -4118 May 15 j 06:23 15°8 -4124 Jun 07 j 10:05 12°M36'33 0°-7'-9 -4118 Jun 04 j 11:05 19°**8**19'59 opposition evening set -4124 Jun 07 j 11:21 12°MJ36'08 4.07966 AU min. Earth dist. -4124 Aug 06 j 00:32 -4118 Jun 17 j 22:41 22°**8**17'48 0°18'41 7°**ጤ**43'22 conjunction direct -4118 Jun 17 j 22:40 22°**8**17'47 0°18'48 -4124 Oct 15 j 07:18 15°M minimum elong 6.33805 AU -4124 Dec 08 j 02:19 26°M41'56 -4118 Jun 17 j 15:38 22°**8**13'55 evening set max. Earth dist. -4118 Jul 01 j 07:36 25°**8**14'07 morning rise -4124 Dec 21 j 01:30 29°M 46'53 0°-28'-59 -4118 Jul 23 j 13:48 0°**Ⅱ** conjunction minimum elong -4124 Dec 21 j 01:27 29°ML46'52 0°29'09 retrograde -4118 Oct 30 j 12:39 12°**Д**31'37 -4124 Dec 21 j 23:31 0°**∡**7 opposition -4118 Dec 29 j 07:52 7°**耳**36′09 0°57′37 max. Earth dist. -4124 Dec 21 j 12:56 29°M.53'42 6.04277 AU min. Earth dist. -4118 Dec 29 j 19:35 7°**I**32'18 4.36864 AU morning rise -4123 Jan 03 j 03:40 2°**尽**53'31 direct -4117 Mar 01 j 04:50 2°**Ⅲ**32'30 retrograde -4123 May 14 j 16:04 22° ₹ 59'49 -4117 Jul 07 j 00:45 20°**Д**30'56 evening set -4123 Jul 13 j 10:26 18°**х** 03'59 4.02010 AU max. Earth dist. -4117 Jul 19 j 00:40 23°**Ⅲ**08'21 min. Earth dist. 6.38594 AU -4123 Jul 14 j 04:06 17°**尽** 58'07 -1°-17'-25 opposition -4123 Sep 10 j 14:13 13°**尽**04'50 -4117 Jul 20 j 03:25 23°**Д**23'02 0°58'04 direct conjunction -4117 Jul 20 j 03:22 23°**II**23'00 -4122 Jan 03 i 01:57 0°ਰ minimum elong 0°58'15 evening set -4122 Jan 12 j 23:15 2°る19'32 morning rise -4117 Aug 02 i 02:32 26°**Ⅱ**13'26 -4117 Aug 19 i 16:50 0°ಅ -4122 Jan 26 i 05:47 conjunction 5°₹28'56 -1°-8'-36 retrograde -4117 Nov 30 i 09:05 13°515'12 minimum elong -4122 Jan 26 i 05:44 5°₹28'54 1°08'48 opposition -4116 Jan 29 j 15:28 8°922'36 1°44'25 max. Earth dist. -4122 Jan 27 j 17:13 5°る50'03 6.01287 AU min. Earth dist. -4116 Jan 30 j 15:04 8°9514'59 4.39050 AU -4122 Feb 08 j 15:40 8°₹40'06 direct -4116 Apr 01 j 03:55 3°520'12 morning rise -4122 Jun 20 j 17:07 28°る57'42 -4116 Aug 06 j 13:12 21°5514'28 retrograde evening set opposition -4122 Aug 19 j 16:18 23°る53'04 -1°-59'-8 max. Earth dist. -4116 Aug 17 j 14:41 23°540'48 6.37886 AU min. Earth dist. -4122 Aug 18 j 12:25 24°る02'31 4.02457 AU direct -4122 Oct 16 j 17:03 18°る57'29 conjunction -4116 Aug 19 j 07:06 24°503'09 1°20'43 -4121 Jan 13 j 06:20 minimum elong -4116 Aug 19 j 07:04 24°503'08 1°20'53 0°≈ -4121 Feb 18 j 21:42 morning rise -4116 Aug 31 j 22:19 26°550'33 evening set 8°≈13'20 -4116 Sep 15 j 11:07 0 $^{\circ}$ Ω conjunction -4121 Mar 04 j 11:13 11°≈24'02 -1°-22'-27 retrograde -4116 Dec 30 j 22:15 14° Ω 01'58 -4115 Mar 01 j 14:21 minimum elong -4121 Mar 04 j 11:13 11°≈24'03 1°22'37 opposition 9°**Ω**10'33 2°02'11 max. Earth dist. -4121 Mar 06 j 10:32 11°≈51'48 6.04988 AU min. Earth dist. -4115 Mar 02 j 21:04 9°**Ω**00'46 4.35613 AU morning rise -4121 Mar 18 j 03:12 14°**≈**35'55 direct -4115 May 03 j 04:39 4°**Ω**10′22 -4121 Mar 19 j 20:40 15°≈ -4115 Aug 04 j 00:58 15°**Ω** -4121 Jun 02 j 06:40 0°**)**€ evening set -4115 Sep 06 j 15:24 22° € 11'00 retrograde -4121 Jul 26 j 10:48 4°)(24'45 max. Earth dist. -4115 Sep 17 j 11:17 24° Ω36'45 6.31907 AU

-4121 Sep 19 j 01:16 30°R≈

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4115 in astronomical counting style is the year 4116 BCE in historical counting style. -4115 Sep 19 j 04:30 24° **Ω**59'57 1°20'36 morning rise -4109 Mar 23 i 06:48 19°≈36'24 conjunction -4115 Sep 19 j 04:32 24°Ω59'58 -4109 May 09 j 23:54 0°₩ minimum elong 1°20'42 -4115 Oct 01 j 15:56 27° **Ω**48'14 -4109 Jul 31 j 04:42 9°¥19'21 morning rise retrograde -4109 Sep 28 j 17:19 -4115 Oct 11 j 13:12 opposition 4°**)** 14'24 -1°-51'-34 0° m -4114 Feb 01 j 17:09 15° m 32'16 -4109 Sep 27 j 13:55 retrograde min. Earth dist. 4°**¥**23'46 4.10153 AU 30°**₹**≈ -4109 Nov 05 j 04:42 opposition -4114 Apr 03 j 18:31 10° Mp 40'06 1°44'56 min. Earth dist. -4114 Apr 04 j 21:30 10° M 31'32 4.27460 AU direct -4109 Nov 26 j 05:22 29°≈15′03 5° Mp 42'48 -4114 Jun 04 j 16:25 direct -4109 Dec 17 j 10:38 0°**∀** evening set -4114 Oct 08 j 01:59 23° m 58'42 evening set -4108 Mar 31 j 17:18 18° **★** 13'28 max. Earth dist. -4114 Oct 19 j 08:17 26° Mp 33'49 6.22267 AU conjunction -4108 Apr 14 j 11:39 21° **★** 21'49 -1°-1'-32 -4114 Oct 20 j 15:04 26° m 51'32 0°56'28 -4108 Apr 14 j 11:43 21° **∺**21'51 1°01'36 conjunction minimum elong -4114 Oct 20 j 15:07 26° m 51'34 -4108 Apr 16 j 01:13 21° **★** 43'17 minimum elong 0°56'30 max. Earth dist. 6.15105 AU morning rise -4114 Nov 02 j 04:13 29° m 44'38 morning rise -4108 Apr 28 j 06:21 24° **∺** 30'11 -4114 Nov 03 j 07:07 0∘**⊽** -4108 May 23 j 03:07 $0^{\circ}\Upsilon$ retrograde -4113 Mar 08 j 08:58 18°**♀**18'18 retrograde -4108 Sep 01 j 20:41 13°**Υ**17'21 opposition -4113 May 08 j 11:13 13°**£**23'42 0°54'07 opposition -4108 Oct 31 j 05:24 8°**Ƴ**14'47 -1°-3'-21 min. Earth dist. -4113 May 09 j 03:30 13°**♀**18'28 4.16875 AU min. Earth dist. -4108 Oct 30 j 12:22 8°Υ20'34 4.20498 AU direct -4113 Jul 08 j 06:19 8°**₽**29'03 direct -4108 Dec 29 j 19:43 3°**Y**12'40 evening set -4113 Nov 09 j 16:08 27°**2**06'30 evening set -4107 May 06 j 05:31 21°**Υ**46'40 -4113 Nov 21 j 23:52 conjunction -4107 May 19 j 22:37 24°**Υ**50'02 0°-20'-59 conjunction -4113 Nov 22 i 09:34 0°ML05'41 0°13'31 minimum elong -4107 May 19 j 22:38 24°**Υ**50'03 0°20'56 minimum elong -4113 Nov 22 i 09:34 0°M05'42 0°13'26 max. Earth dist. -4107 May 20 j 13:45 24° Υ 58'29 6.25817 AU behind sun begin -4113 Nov 22 j 04:53 0°ML02'57 morning rise -4107 Jun 02 j 14:16 27°**Υ**'52'28 -4113 Nov 22 j 14:16 0°ML08'26 -4107 Jun 12 j 06:12 0°8 behind sun end -4113 Nov 21 j 22:36 29°**2**59'15 6.11737 AU -4107 Sep 12 j 11:32 15°8 max Earth dist -4113 Dec 05 j 04:47 -4107 Oct 03 j 19:45 15°**8**44'23 morning rise 3°M,06'00 retrograde -4112 Jan 29 j 16:34 15° ML -4107 Oct 25 j 01:46 15°R8 -4112 Mar 10 j 08:24 20° 1 L52' 48 -4107 Nov 16 j 07:25 12°850'04 desc. node asc. node -4107 Dec 02 j 08:36 10°845'35 0°02'45 -4112 Apr 12 j 14:33 22°M34'14 retrograde opposition -4112 Jun 12 j 12:17 17°ML35'57 0°-17'-36 -4107 Dec 02 j 06:14 10°**8**46'22 4.30575 AU min. Earth dist. opposition -4112 Jun 12 j 10:01 17°ML36'41 4.07216 AU -4106 Feb 01 j 05:53 5°**8**41'57 min. Earth dist. direct -4112 Jul 03 j 13:13 15°RML -4106 Apr 27 j 01:56 15°8 -4112 Aug 10 j 21:32 12°M42'53 -4106 Jun 09 j 03:07 23°**8**53'34 direct evening set -4112 Sep 17 j 16:49 15°ML -4112 Dec 05 j 16:46 -4106 Jun 22 j 13:44 26°**8**50'38 0°24'53 0°**∡** conjunction evening set -4112 Dec 12 j 23:36 1°**х** 42′52 minimum elong -4106 Jun 22 j 13:42 26°850'37 0°25'02 max. Earth dist. -4106 Jun 22 j 05:07 26°**8**45'54 6.34538 AU conjunction -4112 Dec 25 j 23:41 4°**∡**148'24 0°-35'-29 morning rise -4106 Jul 05 j 21:14 29°**8**46'06 minimum elong -4112 Dec 25 j 23:38 4°**∡**¹48'22 0°35'39 -4106 Jul 06 j 22:41 0°**Ⅱ** max. Earth dist. -4112 Dec 26 j 14:37 4°**∡**757'18 6.03843 AU -4106 Nov 03 j 20:55 17°**Д**00'28 retrograde morning rise -4111 Jan 08 j 02:48 7°**∡**¹55'37 -4105 Jan 02 j 17:46 12°**Д**05'27 1°05'35 opposition -4111 May 19 j 19:30 28° ₹04'27 min. Earth dist. -4105 Jan 03 j 06:46 12°**Д**01'12 4.37349 AU retrograde -4111 Jul 18 j 11:13 23°**х** 08'28 4.01939 AU -4105 Mar 05 j 17:36 7°**Д**01'55 min. Earth dist. direct -4111 Jul 19 i 05:55 23° ₹ 02'14 -1°-25'-25 opposition evening set -4105 Jul 11 j 13:12 24°**I** 59'25 -4111 Sep 15 i 14:55 18° ₹08'41 direct max. Earth dist. -4105 Jul 23 j 08:20 27° **II** 34'21 6.38770 AU -4111 Dec 16 i 15:46 0°궁 evening set -4105 Jul 24 j 14:24 27°**Д**50'51 1°02'28 -4110 Jan 18 j 00:11 7°る23'39 conjunction minimum elong -4105 Jul 24 i 14:21 27° II 50'49 1°02'38 conjunction -4110 Jan 31 j 07:45 10°♂33'21 -1°-12'-17 -4105 Aug 03 j 09:55 0ಂತಾ -4110 Jan 31 j 07:42 10° ට 33'19 1°12'28 morning rise -4105 Aug 06 j 12:24 minimum elong 0°9540'41 max. Earth dist. -4110 Feb 01 j 21:47 10°る55'58 6.01568 AU -4105 Dec 04 j 19:16 17°542'15 retrograde morning rise -4110 Feb 13 j 18:32 13°₹44'45 opposition -4104 Feb 03 j 02:40 12°549'50 1°48'52 -4110 May 05 j 03:41 0°≈ min. Earth dist. -4104 Feb 04 j 03:57 12°5541'41 4.38922 AU retrograde -4110 Jun 25 j 17:54 4°≈00'11 direct -4104 Apr 05 j 17:09 7°**9**547'36 -4110 Aug 16 j 14:57 30°₹♂ evening set -4104 Aug 10 j 22:52 25°5541'52 min. Earth dist. -4110 Aug 23 j 10:26 29°중05'01 4.03087 AU max. Earth dist. -4104 Aug 22 j 00:03 28°508'14 6.37432 AU -4110 Aug 24 j 14:48 28°**る**55'24 -2°-1'-24 opposition -4110 Oct 21 j 15:10 23°**궁**59'24 -4104 Aug 23 j 15:59 28°530'21 1°22'09 direct conjunction -4104 Aug 23 j 15:58 28°\$30'20 1°22'19 -4110 Dec 23 j 06:43 0°≈ minimum elong evening set -4109 Feb 23 j 23:54 13°≈14'03 -4104 Aug 30 j 09:47 0 $^{\circ}\Omega$ -4109 Mar 03 j 13:24 15°≈ morning rise -4104 Sep 05 j 06:13 1°**Ω**17'33 -4104 Nov 16 j 12:47 15°**Ω** conjunction -4109 Mar 09 j 14:03 16°≈24'40 -1°-21'-54 retrograde -4103 Jan 04 j 09:40 18°**Ω**31'44 minimum elong -4109 Mar 09 j 14:04 16°≈24'40 -4103 Feb 23 j 14:39 15°RΩ 1°22'02

opposition

-4103 Mar 06 j 04:29 13° **Ω** 40'16 2°01'53

max. Earth dist.

-4109 Mar 11 j 11:17 16°≈51'08 6.05887 AU

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4103 in astronomical counting style is the year 4104 BCE in historical counting style. -4103 Mar 07 i 10:23 $13^{\circ}\Omega$ 30'45 4.34853 AU -4097 Feb 14 i 12:04 15°≈ min. Earth dist. -4103 May 07 j 16:58 -4097 Mar 01 j 05:53 18°≈23'13 direct 8°**Ω**40'27 evening set -4103 Jul 15 j 04:00 15°**Ω** -4103 Sep 11 j 00:44 26° € 42'09 -4097 Mar 14 j 21:03 21°≈33'52 -1°-20'-42 evening set conjunction -4103 Sep 21 j 20:25 29°**Ω**08'13 6.30874 AU max. Earth dist. -4097 Mar 14 j 21:05 21°≈33'53 1°20'49 minimum elong max. Earth dist. -4097 Mar 16 j 19:37 22°≈01'03 6.06746 AU conjunction -4103 Sep 23 j 13:23 29°Ω31'20 1°18'35 morning rise -4097 Mar 28 j 14:15 24°≈45'26 -4103 Sep 23 j 13:24 29°**Ω**31'21 minimum elong 1°18'41 -4097 Apr 20 j 18:04 0°**∀** 14°**)**€22'18 -4103 Sep 25 j 16:10 0° m retrograde -4097 Aug 05 j 03:42 2° m/20'00 morning rise -4103 Oct 06 j 00:47 opposition -4097 Oct 03 j 14:20 9°**升**17'38 -1°-46'-37 retrograde -4102 Feb 06 j 12:00 20° m 09'36 min. Earth dist. -4097 Oct 02 j 12:06 9°**¥**26'35 4.11345 AU -4097 Dec 01 j 05:14 opposition -4102 Apr 08 j 13:06 15° m 17'11 1°39'38 direct 4°**)** 17′57 -4096 Apr 05 j 20:59 23°**米** 13'40 min. Earth dist. -4102 Apr 09 j 16:01 15° Mp 08'37 4.26184 AU evening set direct -4102 Jun 09 j 09:03 10° m 20'11 evening set -4102 Oct 12 j 13:34 28° Mp 38'26 conjunction -4096 Apr 19 j 15:25 26° **★**21'29 0°-56'-39 -4102 Oct 18 j 11:34 0∘**⊽** minimum elong -4096 Apr 19 j 15:30 26°**∺**21'32 0°56'41 max. Earth dist. -4102 Oct 23 j 22:16 1°**♀**15'23 6.20859 AU max. Earth dist. -4096 Apr 21 j 02:42 26° **★**41'34 6.16562 AU morning rise -4096 May 03 j 10:11 29°**₭**29'13 conjunction -4102 Oct 25 j 03:06 1°**2**32'02 0°51'21 -4096 May 05 j 16:48 $0^{\circ}\Upsilon$ minimum elong -4102 Oct 25 j 03:09 1°**♀**32'03 0°51'22 retrograde -4096 Sep 06 j 11:19 18° Υ'08'08 morning rise -4102 Nov 06 j 16:52 4°**2**25'59 opposition -4096 Nov 04 j 21:21 13°**Υ**06'04 0°-54'-30 retrograde -4101 Mar 13 i 07:21 23°**2**06'58 min. Earth dist. -4096 Nov 04 j 05:05 13°Υ11'35 4.22103 AU opposition -4101 May 13 j 10:14 18° **2**11'54 0° 44'52 direct -4095 Jan 03 i 15:41 8°**Y**03'43 min. Earth dist. -4101 May 13 j 23:41 18°**£**07'35 4.15433 AU evening set -4095 May 11 j 03:51 26°**Y**33'44 direct -4101 Jul 12 j 23:34 13°**♀**17'33 -4101 Nov 05 j 21:09 -4095 May 24 j 20:18 29°**Υ**36'07 oom. conjunction 0°-14'-28 -4101 Nov 14 j 08:43 1°M58'16 -4095 May 24 j 20:20 29°**Υ**36'08 0°14'24 evening set minimum elong -4095 May 24 j 16:51 29°**Υ**34'13 behind sun begin -4101 Nov 27 j 02:58 -4095 May 24 j 23:48 29°**Y**38'04 conjunction 4°M.58'24 0°06'39 behind sun end 4°M58'24 -4095 May 25 j 09:19 29°**Υ**43'21 -4101 Nov 27 j 02:57 max. Earth dist. minimum elong 0°06'34 6.27495 AU -4101 Nov 26 j 19:24 -4095 May 26 j 15:12 0°8 behind sun begin 4°M53'58 -4101 Nov 27 j 10:31 -4095 Jun 07 j 10:55 5°M02'50 morning rise 2°**8**37'26 behind sun end -4095 Aug 08 j 18:46 15°**8** -4101 Nov 26 j 19:05 4°M53'47 6.10387 AU max. Earth dist. -4101 Dec 09 j 23:12 7° ML 59'45 -4095 Sep 26 j 00:56 20°**8**06'58 morning rise asc. node -4100 Jan 09 j 21:49 15°M₁ -4095 Oct 08 j 06:44 20°**8**21'40 retrograde -4100 Jan 19 j 05:42 16° 11.57'39 -4095 Dec 06 j 20:15 15°\(23'27\) 0°12'14 desc. node opposition -4100 Apr 17 j 19:14 27° ML35'11 -4095 Dec 06 j 19:59 15°**8**23'33 4.32186 AU retrograde min. Earth dist. opposition -4100 Jun 17 j 15:07 22°M 36'20 0°-28'-1 -4095 Dec 09 j 18:52 15°R₩ min. Earth dist. -4100 Jun 17 j 11:08 22°M37'38 4.06065 AU direct -4094 Feb 05 j 22:58 10°**8**19'49 direct -4100 Aug 15 j 21:00 17°ML43'18 -4094 Apr 04 j 16:20 15°8 -4100 Nov 18 j 10:01 0°**∡**¹ evening set -4094 Jun 13 j 18:51 28°**8**27'12 -4100 Dec 17 j 22:21 6°**х** 46′29 -4094 Jun 20 j 20:34 $\Pi^{\circ}0$ evening set -4100 Dec 30 j 23:33 9°**₹**52'51 0°-41'-48 -4094 Jun 27 j 04:07 1°П23'09 0°30'52 conjunction conjunction -4100 Dec 30 j 23:30 9°**∡** 52'49 -4094 Jun 27 j 04:04 1°**Ⅲ**23'08 0°31'02 minimum elong 0°41'59 minimum elong -4100 Dec 31 j 18:21 10° ₹04'04 6.02994 AU -4094 Jun 26 i 16:01 1°**Ⅱ**16'31 max. Earth dist. max. Earth dist. 6.35955 AU -4099 Jan 13 i 03:48 13° ₹00'57 -4094 Jul 10 i 10:17 morning rise morning rise 4°**Ⅱ**17′29 -4094 Nov 08 і 03:30 21°**Д**26'40 -4099 Apr 08 i 19:20 0°ರ retrograde -4093 Jan 07 j 02:43 16°**Д**32'04 1°12'59 retrograde -4099 May 25 i 01:33 3°る13'45 opposition -4099 Jul 10 i 12:18 30°R ✓ min. Earth dist. -4093 Jan 07 j 17:23 16°**Д**27'17 4.38490 AU -4099 Jul 24 j 09:35 28° ₹ 11'09 -1°-32'-57 direct -4093 Mar 10 j 05:59 11°**Д**28'36 opposition min. Earth dist. -4099 Jul 23 j 13:00 28° ₹ 18'01 4.01511 AU evening set -4093 Jul 15 j 22:44 29°**Ⅲ**22'52 direct -4099 Sep 20 j 15:37 23° ₹ 17'25 -4093 Jul 18 j 18:55 000 -4099 Nov 26 j 00:39 0°궁 -4098 Jan 23 j 04:30 12°₹34'14 conjunction -4093 Jul 28 j 22:39 2°913'26 1°06'20 evening set minimum elong -4093 Jul 28 j 22:36 2°9513'24 1°06'31 conjunction -4098 Feb 05 j 12:58 15°₹44'22 -1°-15'-29 max. Earth dist. -4093 Jul 27 j 15:40 1°956'26 6.39537 AU -4098 Feb 05 j 12:55 15°₹44'20 1°15'40 -4093 Aug 10 j 19:10 minimum elong morning rise 5°902'23 -4098 Feb 07 j 03:38 16°る07'20 6.01566 AU -4093 Dec 09 j 01:02 22°502'14 max. Earth dist. retrograde -4098 Feb 19 j 00:52 18°**궁**56'11 -4092 Feb 07 j 11:04 17°510'04 1°52'27 morning rise opposition -4098 Apr 10 j 07:36 0°≈ min. Earth dist. -4092 Feb 08 j 13:30 17°501'36 4.39262 AU retrograde -4098 Jun 30 j 20:04 9°≈10'19 direct -4092 Apr 10 j 02:54 12°508'07 min. Earth dist. -4098 Aug 28 j 10:51 4°≈15'17 4.03525 AU evening set -4092 Aug 15 j 04:40 0°**Ω**00′53 opposition -4098 Aug 29 j 16:01 4°≈05'21 -2°-2'-51 -4092 Aug 15 j 03:03 0° Ω -4098 Oct 04 j 09:10 30°R궁 max. Earth dist. -4092 Aug 26 j 02:00 2°**Ω**25'19 6.37291 AU direct -4098 Oct 26 j 16:35 29°る08'56 -4098 Nov 18 j 02:24 -4092 Aug 27 j 20:41 2°Ω48'59 1°23'01 conjunction

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4092 in astronomical counting style is the year 4093 BCE in historical counting style. -4092 Aug 27 j 20:40 $2^{\circ}\Omega$ 48'59 1° 23'10 morning rise -4086 Feb 24 i 08:41 24°る10'30 minimum elong -4092 Sep 09 j 10:18 -4086 Mar 21 j 17:18 morning rise 5°**Ω**35'57 0°≈≈ -4092 Oct 24 j 23:01 15°Ω -4086 Jul 06 j 01:18 retrograde 14°≈23'20 -4091 Jan 08 j 19:13 $22^{\circ}\Omega 52'17$ -4086 Sep 03 j 18:26 opposition 9°**≈**18'10 -2°-3'-13 retrograde -4091 Mar 10 j 14:48 $18^{\circ}\Omega$ 00'47 2° 00'51 -4086 Sep 02 j 13:02 opposition min. Earth dist. 9°≈28'11 4.03946 AU -4086 Oct 31 j 19:38 min. Earth dist. -4091 Mar 11 j 22:00 17° **Ω** 50′52 4.34226 AU direct 4°≈21'18 -4085 Jan 26 j 21:19 -4091 Apr 05 j 02:15 15°RΩ 15°≈ 13°**Ω**01′12 direct -4091 May 12 j 02:51 evening set -4085 Mar 06 j 13:21 23°≈34'46 -4091 Jun 17 j 23:09 15°**Ω** -4091 Sep 10 j 11:32 0° M conjunction -4085 Mar 20 j 05:10 26°≈45'18 -1°-18'-48 evening set -4091 Sep 15 j 05:43 1°M 03'48 minimum elong -4085 Mar 20 j 05:13 26°≈45'20 1°18'55 -4091 Sep 26 j 02:10 -4085 Mar 22 j 03:39 27°≈12'21 max. Earth dist. 3°m/30'37 6.29811 AU max. Earth dist. 6.07702 AU morning rise -4085 Apr 02 j 23:03 29°≈56'40 conjunction -4091 Sep 27 j 18:20 3° M 53'20 1°16'11 -4085 Apr 03 j 04:50 0°**)**€ minimum elong -4091 Sep 27 j 18:22 3°m 53'21 1°16'16 retrograde -4085 Aug 10 j 00:24 19°**¥**26′19 morning rise -4091 Oct 10 j 05:36 6° m 42'26 min. Earth dist. -4085 Oct 07 j 09:02 14°**)** 30′51 4.12710 AU retrograde -4090 Feb 11 j 01:18 24° Mp 37'54 opposition -4085 Oct 08 j 11:38 14° **∺**21'46 -1°-40'-49 opposition -4090 Apr 13 j 03:32 19° m 45'14 1°33'55 direct -4085 Dec 06 j 05:19 9°**¥**21'35 min. Earth dist. -4090 Apr 14 j 05:29 19° m 36'59 4.24736 AU evening set -4084 Apr 11 j 01:03 28° ¥ 13'39 direct -4090 Jun 13 j 19:08 14° m 48'35 -4084 Apr 18 j 21:09 $0^{\circ}\Upsilon$ -4090 Oct 02 j 22:36 0∘**ত** evening set -4090 Oct 16 j 21:41 3°**♀**10'04 conjunction -4084 Apr 24 i 19:32 1°**Y**20'47 0°-51'-19 max. Earth dist. -4090 Oct 28 j 07:28 5°**£**48'16 6.19150 AU minimum elong -4084 Apr 24 j 19:36 1°**Y**20'49 0°51'19 max. Earth dist. -4084 Apr 26 i 04:31 1°Y39'29 6.18202 AU conjunction -4090 Oct 29 i 11:34 6°**♀**04'33 0°46'06 morning rise -4084 May 08 j 13:59 4°**Υ**27'38 -4090 Oct 29 j 11:37 6°**£**04'35 0°46'05 $-4084 \text{ Sep } 11 \text{ j } 03:39 \quad 22^{\circ} \Upsilon 57'32$ minimum elong retrograde -4090 Nov 11 j 02:08 8°**£**59'35 -4084 Nov 09 j 13:07 17°**Υ**55'54 0°-45'-14 morning rise opposition -4089 Mar 18 j 05:33 27°**£**49'22 -4084 Nov 08 j 23:27 18°Υ00'31 4.23802 AU retrograde min. Earth dist. -4089 May 18 j 06:33 22°**2**53'50 0°35'36 -4083 Jan 08 j 13:16 12°**Υ**53'13 direct opposition -4089 May 18 j 18:56 22°**Ω**49'50 -4083 May 10 j 01:50 min. Earth dist. 4.13561 AU 0° 8 -4089 Jul 17 j 15:42 17°**♀**59'40 -4083 May 16 j 01:37 evening set 1°**8**18'53 direct -4089 Oct 20 j 04:54 0°M 6°M45'28 -4083 May 29 j 17:20 4°**8**20'18 0°-7'-50 -4089 Nov 18 j 23:20 conjunction evening set -4083 May 29 j 17:21 -4089 Nov 30 j 14:49 4°**8**20'18 0°07'45 desc. node 9°M30′22 minimum elong -4083 May 29 j 09:54 4°**8**16'12 behind sun begin -4089 Dec 01 j 18:38 9°M46'49 0°00'-8 -4083 May 30 j 00:47 4°**8**24'25 conjunction behind sun end -4089 Dec 01 j 18:38 -4083 May 30 j 03:17 minimum elong 9°**™**46'49 0°00'16 max. Earth dist. 4°**8**25'48 6.29091 AU behind sun begin -4089 Dec 01 j 10:37 9°M42'06 morning rise -4083 Jun 12 j 06:54 7°**呂**20'30 behind sun end -4089 Dec 02 j 02:40 9°M51'33 -4083 Jul 18 j 14:47 15°**8** max. Earth dist. -4089 Dec 01 j 14:13 9°**M**₊44'15 6.08543 AU asc. node -4083 Aug 04 j 19:29 18°**8**12'02 -4089 Dec 14 j 15:59 12°M49'29 retrograde -4083 Oct 12 j 16:11 24°**8**57'40 morning rise -4089 Dec 23 j 23:42 15°M -4083 Dec 11 j 07:52 19°\(\begin{align*} \begin{al opposition -4088 Mar 12 j 17:40 min. Earth dist. -4083 Dec 11 j 09:06 19°**8**59'34 4.33549 AU -4088 Apr 22 j 22:49 -4082 Feb 04 j 06:43 15°R8 retrograde 2°**х** 33′54 -4088 Jun 03 j 09:00 30°RM -4082 Feb 10 j 13:54 14°856'15 direct -4088 Jun 22 j 16:33 27°MJ34'34 0°-38'-2 opposition -4082 Feb 16 i 21:47 15°8 -4088 Jun 22 j 10:14 27°M-36'38 min. Earth dist. 4.04438 AU -4082 Jun 04 i 10:40 $\Pi^{\circ}0$ direct -4088 Aug 20 j 17:14 22°M-41'35 evening set -4082 Jun 18 i 10:29 3°**Ⅱ**00'29 -4088 Oct 29 j 18:03 0°**√** -4088 Dec 22 j 21:34 11° ₹ 50'00 conjunction -4082 Jul 01 j 18:23 5°II55'27 0°36'47 evening set -4082 Jul 01 j 18:20 5°II55'26 0°36'56 minimum elong -4087 Jan 04 j 23:46 14° ₹ 57'24 0°-47'-42 -4082 Jul 01 j 03:02 5°**Ⅱ**47'03 6.36968 AU conjunction max. Earth dist. -4087 Jan 04 j 23:43 14° ₹757'22 -4082 Jul 14 j 23:07 8°**Ⅱ**48'47 minimum elong 0°47'53 morning rise -4082 Nov 12 j 12:59 25°**Д**54'35 max. Earth dist. -4087 Jan 05 j 20:50 15°**✗** 09'59 6.01721 AU retrograde morning rise -4087 Jan 18 j 05:22 18° **₹** 06'38 opposition -4081 Jan 11 j 12:58 21°**Ⅲ**00′28 1°20'09 4.39094 AU -4087 Mar 13 j 11:21 0°궁 min. Earth dist. -4081 Jan 12 j 06:16 20°**Ⅲ**54'51 retrograde -4087 May 30 j 07:29 8°**る**24'47 direct -4081 Mar 14 j 19:38 15°**耳**57'10 -4087 Jul 29 j 13:24 3°る21'40 -1°-39'-40 -4081 Jul 02 j 11:38 opposition 0.00 -4087 Jul 28 j 14:20 3°る29'25 4.00749 AU -4081 Jul 20 j 10:00 3°950'09 min. Earth dist. evening set -4081 Jul 31 j 22:16 6°521'17 6.39656 AU -4087 Aug 26 j 06:38 30°R ⊀ max. Earth dist. -4087 Sep 25 j 16:42 28° ₹27'37 direct -4087 Oct 26 j 00:21 0°ಕ conjunction -4081 Aug 02 j 08:36 6°9540'08 1°10'00 evening set -4086 Jan 28 j 10:07 17°る47'28 minimum elong -4081 Aug 02 j 08:33 6°9540'06 1°10'11 morning rise -4081 Aug 15 j 03:59 9°928'33 conjunction -4086 Feb 10 j 19:53 20°중58'12 -1°-18'-2 retrograde -4081 Dec 13 j 11:15 26°529'03 minimum elong -4086 Feb 10 j 19:51 20° ₹58'11 1°18'14 -4080 Feb 11 j 22:41 21°537'06 opposition

min. Earth dist.

-4080 Feb 13 j 02:19 21°528'14 4.38921 AU

max. Earth dist.

-4086 Feb 12 j 14:42 21°る23'38 6.01384 AU

Attention astronom	ical year etyle is used: Th	10 Maar 1080	in actronomical co	unting etyla ic the year	4091 BCE in historical c	counting ctula	
direct	ical year style is used: Th -4080 Apr 14 j 14:21	-	iii astronomicai co	conjunction	-4074 Feb 16 j 03:18		
direct	-4080 Apr 14 j 14.21 -4080 Jul 29 j 19:02	10 3 33 24 0°Ω		-	-4074 Feb 16 j 03:16		1°20'12
				minimum elong	3		
evening set	-4080 Aug 19 j 13:59	4° Ω 29'01	(2(507 AII	max. Earth dist.	-4074 Feb 17 j 23:25		6.02166 AU
max. Earth dist.	-4080 Aug 30 j 11:13	6° Ω 53'41	6.36507 AU	morning rise	-4074 Mar 01 j 17:04		
:	4000 C 01 : 05-21	70 0 1 710 (1922121		-4074 Mar 04 j 03:35	0°≈	
conjunction	-4080 Sep 01 j 05:21		1°23'31		-4074 May 16 j 22:54		
minimum elong	-4080 Sep 01 j 05:20	7° Ω 17'06	1°23'39	retrograde	-4074 Jul 11 j 01:19		
morning rise	-4080 Sep 13 j 18:11	10° Ω 04'06			-4074 Sep 04 j 20:16		20 21 20
	-4080 Oct 06 j 13:51	15° Ω		opposition	-4074 Sep 08 j 18:43		-2°-2'-38
retrograde	-4079 Jan 13 j 09:49 -4079 Mar 15 j 06:30	27° Ω 24'53 22° Ω 33'24	1°59'10	min. Earth dist.	-4074 Sep 07 j 12:10 -4074 Nov 05 j 20:51	9°≈30'28	4.05208 AU
opposition min. Earth dist.	•	$22^{\circ}\Omega 23'28$	4.33047 AU	direct	,	9 ≈30 28 15°≈	
direct	-4079 Mar 16 j 13:46 -4079 May 16 j 16:17	$17^{\circ}\Omega 34'16$	4.33047 AU	evening set	-4073 Jan 04 j 18:49 -4073 Mar 11 j 18:15		
direct	-4079 Aug 24 j 18:59	0°M)		evening set	-4073 Mar 17 j 12:07	0°) €	
evening set	-4079 Sep 19 j 16:11	5°Mp39'25			-40/3 Wai 1/ j 12.0/	0 /	
max. Earth dist.	-4079 Sep 30 j 12:05	8°M)06'30	6.28329 AU	conjunction	-4073 Mar 25 j 10:41	1° ¥ 50'27	-1°-16'-23
max. Earm dist.	-40/9 Sep 30 j 12.03	o cooyii o	0.28329 AU	minimum elong	-4073 Mar 25 j 10:44	1° X 50'27	1°16'30
conjunction	-4079 Oct 02 j 04:34	8° m 29'30	1°13'13	max. Earth dist.	-4073 Mar 27 j 07:46	2°) 16'34	6.09320 AU
minimum elong	-4079 Oct 02 j 04:37	8°M)29'31	1°13'18	morning rise	-4073 Apr 08 j 04:50	5° H 01'10	0.09320 AC
morning rise	-4079 Oct 14 j 16:11	11° m)19'19	1 13 10	retrograde	-4073 Aug 14 j 19:13	24° H 21'42	
retrograde	-4078 Feb 15 j 23:14	29° m) 22'21		min. Earth dist.	-4073 Oct 12 j 05:07	19° H 25'41	4.14482 AU
opposition	-4078 Apr 18 j 01:01	24° m) 29'23	1°27'18	opposition	-4073 Oct 12 j 05:07	19° X 17'24	-1°-34'-28
min. Earth dist.	-4078 Apr 19 j 01:45	24° m 21'30	4.23038 AU	direct	-4073 Dec 11 j 04:12		-1 -34-28
direct	-4078 Jun 18 j 12:28	19° m 33'09	4.23030 AC	direct	-4072 Apr 02 j 05:21	0°Υ	
direct	-4078 Sep 15 j 06:20	0° ʊ		evening set	-4072 Apr 16 j 00:35	3° Υ 04'05	
evening set	-4078 Oct 21 j 12:19	ი — 7° ჲ 58'33		evening set	407271pi 10 j 00.55	3 10403	
max. Earth dist.	-4078 Nov 02 j 02:40	10° £ 39'56	6.17415 AU	conjunction	-4072 Apr 29 j 19:06	6° Y 10′25	0°-45'-49
man. Darun dige.	10701101 02 3 02.10	10 -07 00	0.17 110 110	minimum elong	-4072 Apr 29 j 19:09	6°Υ10'27	0°45'49
conjunction	-4078 Nov 03 j 02:58	10° £ 54'03	0°40'13	max. Earth dist.	-4072 May 01 j 01:43	6° Y 27'43	6.19991 AU
minimum elong	-4078 Nov 03 j 03:00	10° £ 54'05	0°40'12	morning rise	-4072 May 13 j 13:06	9° Υ 16'20	
morning rise	-4078 Nov 15 j 18:13	13° ⊆ 50'10	0 .012	retrograde	-4072 Sep 15 j 14:08	27° Y 37'25	
morning not	-4077 Feb 07 j 22:41	0°M		opposition	-4072 Nov 14 j 00:57	22° Υ 36'18	0°-36'-3
retrograde	-4077 Mar 23 j 09:18	2°M48'41		min. Earth dist.	-4072 Nov 13 j 12:43	22° Υ 40'25	4.25437 AU
	-4077 May 06 j 09:12	30° ₽ Ω		direct	-4071 Jan 13 j 04:23	17° Ƴ 33'21	
opposition	-4077 May 23 j 09:39	27° ♀ 52'44	0°25'28		-4071 Apr 23 j 02:35	0°8	
min. Earth dist.	-4077 May 23 j 19:33	27° ≏ 49'33	4.11941 AU	evening set	-4071 May 20 j 19:21	5° 8 55'14	
direct	-4077 Jul 22 j 13:39	22° Ω 58'58		Č	, ,		
	-4077 Sep 30 j 00:25	0° M		conjunction	-4071 Jun 03 j 10:07	8° 8 55'43	0°-1'-21
desc. node	-4077 Oct 09 j 04:31	1°M44'32		minimum elong	-4071 Jun 03 j 10:06	8° 8 55'42	0°01'15
evening set	-4077 Nov 23 j 20:33	11° M 48'48		behind sun begin	-4071 Jun 03 j 01:49	8° 8 51'09	
				behind sun end	-4071 Jun 03 j 18:23	9° 8 00'16	
conjunction	-4077 Dec 06 j 16:39						
minimum elong	J	14°11L51'08	0°-7'-20	max. Earth dist.	-4071 Jun 03 j 14:47	8° 8 58'16	6.30452 AU
to a triangle and the artist	-4077 Dec 06 j 16:38	14°IL51'08 14°IL51'08	0°-7'-20 0°07'28	max. Earth dist. asc. node	-4071 Jun 03 j 14:47 -4071 Jun 14 j 19:45	8° 8 58'16 11° 8 26'54	6.30452 AU
behind sun begin	-				,		6.30452 AU
behind sun end	-4077 Dec 06 j 16:38	14°M51'08		asc. node	-4071 Jun 14 j 19:45	11° と 26'54 11° と 54'55 15° と	6.30452 AU
	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15	14°M51'08 14°M46'47		asc. node	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43	11° 8 26'54 11° 8 54'55 15° 8	6.30452 AU
behind sun end	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01	14°M51'08 14°M46'47 14°M55'30	0°07'28	asc. node morning rise	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37	11°826'54 11°854'55 15°8 29°826'24	6.30452 AU 0°30'45
behind sun end	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 06 j 15:06	14°M.51'08 14°M.46'47 14°M.55'30 14°M.50'14	0°07'28	asc. node morning rise retrograde	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16	11°\dagge 26'54 11°\dagge 54'55 15°\dagge 29°\dagge 26'24 24°\dagge 29'15 24°\dagge 27'39	
behind sun end max. Earth dist.	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 06 j 15:06 -4077 Dec 07 j 07:37	14°M51'08 14°M46'47 14°M55'30 14°M50'14 15°M	0°07'28	asc. node morning rise retrograde opposition	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42	11° 8 26'54 11° 8 54'55 15° 8 29° 8 26'24 24° 8 29'15	0°30'45
behind sun end max. Earth dist.	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 06 j 15:06 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18	14°M51'08 14°M46'47 14°M55'30 14°M50'14 15°M 17°M54'57	0°07'28	asc. node morning rise retrograde opposition min. Earth dist.	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30	11°\dagge 26'54 11°\dagge 54'55 15°\dagge 29°\dagge 26'24 24°\dagge 29'15 24°\dagge 27'39	0°30'45
behind sun end max. Earth dist. morning rise	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 06 j 15:06 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50	14°M51'08 14°M46'47 14°M55'30 14°M50'14 15°M 17°M54'57 0°×7'	0°07'28	asc. node morning rise retrograde opposition min. Earth dist.	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30	11°\826'54 11°\854'55 15°\8 29°\826'24 24°\829'15 24°\827'39 19°\825'26 0°\PI 7°\PI27'51	0°30'45
behind sun end max. Earth dist. morning rise retrograde	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 06 j 15:06 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50 -4076 Apr 28 j 06:22 -4076 Jun 27 j 23:07 -4076 Jun 27 j 13:20	14°M.51'08 14°M.46'47 14°M.55'30 14°M.50'14 15°M. 17°M.54'57 0°\$\mathrightarrow{7}\$\pi^446'13 2°\$\pi^446'18 2°\$\pi^49'32	0°07'28 6.07199 AU	asc. node morning rise retrograde opposition min. Earth dist. direct	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30 -4070 May 18 j 03:19	11°826'54 11°854'55 15°8 29°826'24 24°829'15 24°827'39 19°825'26 0°耳	0°30'45
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist.	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 06 j 15:06 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50 -4076 Jun 27 j 23:07 -4076 Jun 27 j 13:20 -4076 Jul 20 j 09:23	14°M.51'08 14°M.46'47 14°M.55'30 14°M.50'14 15°M. 17°M.54'57 0° x ⁷ 7° x ⁷ 46'13 2° x ⁷ 46'18 2° x ⁷ 49'32 30°RM.	0°07'28 6.07199 AU 0°-48'-17	asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30 -4070 May 18 j 03:19 -4070 Jun 22 j 23:13 -4070 Jul 05 j 11:33	11°\826'54 11°\854'55 15°\8 29°\826'24 24°\829'15 24°\827'39 19°\825'26 0°\\$\Pi\$ 7°\\$\Pi\$27'51 10°\\$\Pi\$12'00	0°30'45 4.34534 AU 6.37495 AU
behind sun end max. Earth dist. morning rise retrograde opposition	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 06 j 15:06 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50 -4076 Jun 27 j 23:07 -4076 Jun 27 j 13:20 -4076 Jul 20 j 09:23 -4076 Aug 25 j 19:55	14°M.51'08 14°M.46'47 14°M.55'30 14°M.50'14 15°M. 17°M.54'57 0°×7 7°×746'13 2°×746'18 2°×749'32 30°RM. 27°M.53'20	0°07'28 6.07199 AU 0°-48'-17	asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30 -4070 May 18 j 03:19 -4070 Jun 22 j 23:13 -4070 Jul 05 j 11:33	11°826'54 11°854'55 15°8 29°826'24 24°829'15 24°827'39 19°825'26 0°用 7°用27'51 10°用12'00	0°30'45 4.34534 AU 6.37495 AU 0°42'19
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 06 j 15:06 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50 -4076 Jun 27 j 23:07 -4076 Jun 27 j 13:20 -4076 Jul 20 j 09:23 -4076 Aug 25 j 19:55 -4076 Sep 30 j 19:27	14°M.51'08 14°M.46'47 14°M.55'30 14°M.50'14 15°M. 17°M.54'57 0° 🗷 7° 🗷 46'13 2° 🗷 46'18 2° 🗷 49'32 30°RM. 27°M.53'20 0° 🗷	0°07'28 6.07199 AU 0°-48'-17	asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30 -4070 May 18 j 03:19 -4070 Jun 22 j 23:13 -4070 Jul 05 j 11:33 -4070 Jul 06 j 06:00 -4070 Jul 06 j 05:57	11°826'54 11°854'55 15°8 29°826'24 24°829'15 24°827'39 19°825'26 0°用 7°用27'51 10°用12'00 10°用22'07 10°用22'05	0°30'45 4.34534 AU 6.37495 AU
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist.	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 06 j 15:06 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50 -4076 Jun 27 j 23:07 -4076 Jun 27 j 13:20 -4076 Jul 20 j 09:23 -4076 Aug 25 j 19:55	14°M.51'08 14°M.46'47 14°M.55'30 14°M.50'14 15°M. 17°M.54'57 0° 🗷 7° 🗷 46'13 2° 🗷 46'18 2° 🗷 49'32 30°RM. 27°M.53'20 0° 🗷	0°07'28 6.07199 AU 0°-48'-17	asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30 -4070 May 18 j 03:19 -4070 Jun 22 j 23:13 -4070 Jul 06 j 06:00 -4070 Jul 06 j 06:57 -4070 Jul 19 j 09:23	11°826'54 11°854'55 15°8 29°826'24 24°829'15 24°827'39 19°825'26 0°Ⅲ 7°Ⅲ27'51 10°Ⅲ12'00 10°Ⅲ22'07 10°Ⅲ22'05 13°Ⅲ14'42	0°30'45 4.34534 AU 6.37495 AU 0°42'19
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50 -4076 Apr 28 j 06:22 -4076 Jun 27 j 23:07 -4076 Jun 27 j 13:20 -4076 Jul 20 j 09:23 -4076 Aug 25 j 19:55 -4076 Sep 30 j 19:27 -4076 Dec 28 j 00:51	14°M.51'08 14°M.46'47 14°M.55'30 14°M.50'14 15°M. 17°M.54'57 0° 🛪 7° 🛪 46'13 2° 🛪 46'18 2° 🛪 49'32 30° RM. 27°M.53'20 0° 🛪 17° 🛪 04'08	0°07'28 6.07199 AU 0°-48'-17 4.03530 AU	asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30 -4070 May 18 j 03:19 -4070 Jul 05 j 11:33 -4070 Jul 06 j 06:00 -4070 Jul 06 j 05:57 -4070 Jul 19 j 09:23 -4070 Nov 02 j 19:59	11°826'54 11°854'55 15°8 29°826'24 24°829'15 24°827'39 19°825'26 0°用 7°用27'51 10°用12'00 10°用22'07 10°用22'05 13°用14'42 0°等	0°30'45 4.34534 AU 6.37495 AU 0°42'19
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 06 j 15:06 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50 -4076 Apr 28 j 06:22 -4076 Jun 27 j 23:07 -4076 Jun 27 j 13:20 -4076 Jul 20 j 09:23 -4076 Aug 25 j 19:55 -4076 Sep 30 j 19:27 -4076 Dec 28 j 00:51	14°M.51'08 14°M.46'47 14°M.55'30 14°M.50'14 15°M. 17°M.54'57 0° ×7 7° ×746'13 2° ×749'32 30° RM. 27°M.53'20 0° ×7 17° ×704'08	0°07'28 6.07199 AU 0°-48'-17 4.03530 AU	asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30 -4070 May 18 j 03:19 -4070 Jul 05 j 11:33 -4070 Jul 06 j 06:00 -4070 Jul 06 j 05:57 -4070 Jul 19 j 09:23 -4070 Nov 02 j 19:59 -4070 Nov 16 j 19:48	11°826'54 11°854'55 15°8 29°826'24 24°829'15 24°827'39 19°825'26 0°用 7°用27'51 10°用12'00 10°用22'07 10°用22'05 13°用14'42 0°勁 0°勁18'54	0°30'45 4.34534 AU 6.37495 AU 0°42'19
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 06 j 15:06 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50 -4076 Apr 28 j 06:22 -4076 Jun 27 j 23:07 -4076 Jun 27 j 13:20 -4076 Jul 20 j 09:23 -4076 Sep 30 j 19:27 -4076 Dec 28 j 00:51 -4075 Jan 10 j 04:16 -4075 Jan 10 j 04:13	14°M.51'08 14°M.46'47 14°M.55'30 14°M.50'14 15°M. 17°M.54'57 0° 🗷 7° 🗷 46'13 2° 🗷 46'18 2° 🗷 49'32 30°RM. 27°M.53'20 0° 🗷 17° 🗷 04'08	0°07'28 6.07199 AU 0°-48'-17 4.03530 AU 0°-53'-29 0°53'39	asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30 -4070 May 18 j 03:19 -4070 Jul 05 j 11:33 -4070 Jul 06 j 06:00 -4070 Jul 06 j 05:57 -4070 Jul 19 j 09:23 -4070 Nov 02 j 19:59 -4070 Nov 16 j 19:48 -4070 Nov 30 j 19:56	11°826'54 11°854'55 15°8 29°826'24 24°829'15 24°827'39 19°825'26 0°用 7°用27'51 10°用12'00 10°用22'07 10°用22'05 13°用14'42 0°勁 0°勁18'54 30°R用	0°30'45 4.34534 AU 6.37495 AU 0°42'19 0°42'28
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 06 j 15:06 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50 -4076 Apr 28 j 06:22 -4076 Jun 27 j 23:07 -4076 Jun 27 j 13:20 -4076 Jul 20 j 09:23 -4076 Aug 25 j 19:55 -4076 Sep 30 j 19:27 -4076 Dec 28 j 00:51 -4075 Jan 10 j 04:16 -4075 Jan 10 j 04:13 -4075 Jan 11 j 06:57	14°M.51'08 14°M.46'47 14°M.55'30 14°M.50'14 15°M. 17°M.54'57 0°\$\textsize{\sigma}\) 7°\$\textsize{\sigma}\) 46'13 2°\$\textsize{\sigma}\) 20°\$\textsize{\sigma}\) 20°\$\textsize{\sigma}\] 20°\$\textsize{\sigma}\) 20°\$\textsize{\sigma}\]	0°07'28 6.07199 AU 0°-48'-17 4.03530 AU	asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30 -4070 May 18 j 03:19 -4070 Jul 05 j 11:33 -4070 Jul 06 j 06:00 -4070 Jul 06 j 05:57 -4070 Jul 19 j 09:23 -4070 Nov 02 j 19:59 -4070 Nov 16 j 19:48 -4070 Nov 30 j 19:56 -4069 Jan 15 j 21:49	11°826'54 11°854'55 15°8 29°826'24 24°829'15 24°827'39 19°825'26 0°用 7°用27'51 10°用12'00 10°用22'07 10°用22'05 13°用14'42 0°勁 0°勁18'54 30°R用 25°用25'08	0°30'45 4.34534 AU 6.37495 AU 0°42'19 0°42'28
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 06 j 15:06 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50 -4076 Apr 28 j 06:22 -4076 Jun 27 j 23:07 -4076 Jun 27 j 13:20 -4076 Jul 20 j 09:23 -4076 Aug 25 j 19:55 -4076 Sep 30 j 19:27 -4076 Dec 28 j 00:51 -4075 Jan 10 j 04:16 -4075 Jan 10 j 04:13 -4075 Jan 11 j 06:57 -4075 Jan 23 j 10:48	14°M.51'08 14°M.46'47 14°M.55'30 14°M.55'14 15°M. 17°M.54'57 0°\$\textstyle{\sqrt{3}} 7°\$\textstyle{\sqrt{4}}6'13 2°\$\textstyle{\sqrt{4}}6'18 2°\$\textstyle{\sqrt{4}}9'32 30°\$\textstyle{\sqrt{3}}12'00 0°\$\textstyle{\sqrt{3}}17"\$\textstyle{\sqrt{3}}04'08 20°\$\textstyle{\sqrt{3}}12'11 20°\$\textstyle{\sqrt{3}}12'09 20°\$\textstyle{\sqrt{3}}28'07 23°\$\textstyle{\sqrt{3}}22'00	0°07'28 6.07199 AU 0°-48'-17 4.03530 AU 0°-53'-29 0°53'39	asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30 -4070 May 18 j 03:19 -4070 Jul 05 j 11:33 -4070 Jul 06 j 06:00 -4070 Jul 06 j 05:57 -4070 Jul 19 j 09:23 -4070 Nov 02 j 19:59 -4070 Nov 16 j 19:48 -4070 Nov 30 j 19:56 -4069 Jan 15 j 21:49 -4069 Jan 16 j 16:24	11°826'54 11°854'55 15°8 29°826'24 24°829'15 24°825'26 0°11 7°112'00 10°112'00 10°112'05 13°114'42 0°9 0°918'54 30°R11 25°1125'08 25°119'06	0°30'45 4.34534 AU 6.37495 AU 0°42'19 0°42'28
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50 -4076 Apr 28 j 06:22 -4076 Jun 27 j 23:07 -4076 Jun 27 j 13:20 -4076 Jul 20 j 09:23 -4076 Aug 25 j 19:55 -4076 Sep 30 j 19:27 -4076 Dec 28 j 00:51 -4075 Jan 10 j 04:16 -4075 Jan 10 j 04:13 -4075 Jan 11 j 06:57 -4075 Jan 23 j 10:48 -4075 Feb 21 j 06:49	14°M.51'08 14°M.46'47 14°M.55'30 14°M.50'14 15°M. 17°M.54'57 0°\$\textstyle{\sqrt{3}}\tag{46'13} 2°\$\tag{46'18} 2°\$\tag{49'32} 30°\$\textstyle{\sqrt{1}}\tag{20} 0°\$\tag{7}\tag{12'09} 20°\$\tag{12'11} 20°\$\tag{212'00} 0°\$\tag{5}\tag{5}\tag{22'00} 0°\$\tag{5}\	0°07'28 6.07199 AU 0°-48'-17 4.03530 AU 0°-53'-29 0°53'39	asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30 -4070 May 18 j 03:19 -4070 Jul 05 j 11:33 -4070 Jul 06 j 06:00 -4070 Jul 06 j 05:57 -4070 Jul 19 j 09:23 -4070 Nov 02 j 19:59 -4070 Nov 16 j 19:48 -4070 Nov 30 j 19:56 -4069 Jan 15 j 21:49 -4069 Jan 16 j 16:24 -4069 Mar 19 j 05:03	11°826'54 11°854'55 15°8 29°826'24 24°829'15 24°825'26 0°II 7°II27'51 10°II2'00 10°II22'07 10°II22'05 13°II4'42 0°9 0°918'54 30°RII 25°II25'08 25°II19'06 20°II21'58	0°30'45 4.34534 AU 6.37495 AU 0°42'19 0°42'28
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50 -4076 Apr 28 j 06:22 -4076 Jun 27 j 23:07 -4076 Jul 20 j 09:23 -4076 Aug 25 j 19:55 -4076 Sep 30 j 19:27 -4076 Dec 28 j 00:51 -4075 Jan 10 j 04:16 -4075 Jan 10 j 04:13 -4075 Jan 23 j 10:48 -4075 Feb 21 j 06:49 -4075 Jun 04 j 15:42	14°M.51'08 14°M.46'47 14°M.55'30 14°M.50'14 15°M. 17°M.54'57 0°\$\textit{x}\$ 7°\$\textit{x}\$46'13 2°\$\textit{x}\$46'18 2°\$\textit{x}\$46'18 2°\$\textit{x}\$49'32 30°\$\textit{k}\$ 27°M.53'20 0°\$\textit{x}\$ 17°\$\textit{x}\$04'08 20°\$\textit{x}\$12'11 20°\$\textit{x}\$12'09 20°\$\textit{x}\$22'00 0°\$\textit{5}\$ 13°\$\textit{5}\$41'28	0°07'28 6.07199 AU 0°-48'-17 4.03530 AU 0°-53'-29 0°53'39 6.01347 AU	asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30 -4070 May 18 j 03:19 -4070 Jun 22 j 23:13 -4070 Jul 05 j 11:33 -4070 Jul 06 j 06:00 -4070 Jul 06 j 05:57 -4070 Jul 19 j 09:23 -4070 Nov 02 j 19:59 -4070 Nov 16 j 19:48 -4070 Nov 30 j 19:56 -4069 Jan 15 j 21:49 -4069 Mar 19 j 05:03 -4069 Jun 14 j 21:15	11°826'54 11°854'55 15°8 29°826'24 24°829'15 24°825'26 0°II 7°II27'51 10°II2'00 10°II22'07 10°II22'05 13°II4'42 0°S 0°S18'54 30°RII 25°II25'08 25°II19'06 20°II21'58 0°S	0°30'45 4.34534 AU 6.37495 AU 0°42'19 0°42'28
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50 -4076 Jun 27 j 23:07 -4076 Jun 27 j 13:20 -4076 Jul 20 j 09:23 -4076 Aug 25 j 19:55 -4076 Sep 30 j 19:27 -4076 Dec 28 j 00:51 -4075 Jan 10 j 04:16 -4075 Jan 10 j 04:13 -4075 Jan 23 j 10:48 -4075 Feb 21 j 06:49 -4075 Jun 04 j 15:42 -4075 Aug 03 j 19:07	14°M.51'08 14°M.46'47 14°M.55'30 14°M.50'14 15°M. 17°M.54'57 0° 🛪 7° 🛪 '46'13 2° 🛪 '49'32 30° RM. 27°M.53'20 0° 🛪 17° 🛪 '04'08 20° 🛪 '12'11 20° 🛪 '12'09 20° 🛪 '28'07 23° 🛪 '22'00 0° 🛪 13° 🛪 41'28 8° 🛪 37'55	0°07'28 6.07199 AU 0°-48'-17 4.03530 AU 0°-53'-29 0°53'39 6.01347 AU	asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30 -4070 May 18 j 03:19 -4070 Jun 22 j 23:13 -4070 Jul 05 j 11:33 -4070 Jul 06 j 06:00 -4070 Jul 06 j 05:57 -4070 Jul 19 j 09:23 -4070 Nov 02 j 19:59 -4070 Nov 16 j 19:48 -4070 Nov 30 j 19:56 -4069 Jan 16 j 16:24 -4069 Mar 19 j 05:03 -4069 Jun 14 j 21:15 -4069 Jul 24 j 19:55	11° 826'54 11° 854'55 15° 8 29° 826'24 24° 829'15 24° 827'39 19° 825'26 0° II 7° II 27'51 10° II 12'00 10° II 22'07 10° II 22'07 10° II 22'05 13° II 14'42 0° 9 0° 918'54 30° RII 25° II 25'08 25° II 19'06 20° II 21'58 0° 9 8° 915'19	0°30'45 4.34534 AU 6.37495 AU 0°42'19 0°42'28 1°26'45 4.39166 AU
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50 -4076 Apr 28 j 06:22 -4076 Jun 27 j 13:20 -4076 Jul 20 j 09:23 -4076 Aug 25 j 19:55 -4076 Sep 30 j 19:27 -4076 Dec 28 j 00:51 -4075 Jan 10 j 04:16 -4075 Jan 10 j 04:13 -4075 Jan 23 j 10:48 -4075 Feb 21 j 06:49 -4075 Aug 03 j 19:07 -4075 Aug 03 j 19:07	14°M.51'08 14°M.46'47 14°M.55'30 14°M.50'14 15°M. 17°M.54'57 0° 🛪 7° 🛪'46'13 2° 🛪'46'18 2° 🛪'49'32 30° RM. 27°M.53'20 0° 🛪 17° 🛪'04'08 20° 🛪' 12'11 20° 🛪' 12'09 20° 🛪' 28'07 23° 🛪'22'00 0° 🛪 13° 🛪 41'28 8° 🛪 37'55 8° 🛪 46'04	0°07'28 6.07199 AU 0°-48'-17 4.03530 AU 0°-53'-29 0°53'39 6.01347 AU	asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30 -4070 May 18 j 03:19 -4070 Jun 22 j 23:13 -4070 Jul 05 j 11:33 -4070 Jul 06 j 06:00 -4070 Jul 06 j 05:57 -4070 Jul 19 j 09:23 -4070 Nov 02 j 19:59 -4070 Nov 16 j 19:48 -4070 Nov 30 j 19:56 -4069 Jan 15 j 21:49 -4069 Mar 19 j 05:03 -4069 Jun 14 j 21:15	11°826'54 11°854'55 15°8 29°826'24 24°829'15 24°825'26 0°II 7°II27'51 10°II2'00 10°II22'07 10°II22'05 13°II4'42 0°S 0°S18'54 30°RII 25°II25'08 25°II19'06 20°II21'58 0°S	0°30'45 4.34534 AU 6.37495 AU 0°42'19 0°42'28
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-4077 Dec 06 j 16:38 -4077 Dec 06 j 09:15 -4077 Dec 07 j 00:01 -4077 Dec 07 j 07:37 -4077 Dec 19 j 15:18 -4076 Feb 13 j 11:50 -4076 Jun 27 j 23:07 -4076 Jun 27 j 13:20 -4076 Jul 20 j 09:23 -4076 Aug 25 j 19:55 -4076 Sep 30 j 19:27 -4076 Dec 28 j 00:51 -4075 Jan 10 j 04:16 -4075 Jan 10 j 04:13 -4075 Jan 23 j 10:48 -4075 Feb 21 j 06:49 -4075 Jun 04 j 15:42 -4075 Aug 03 j 19:07	14°M.51'08 14°M.46'47 14°M.55'30 14°M.50'14 15°M. 17°M.54'57 0° 🛪 7° 🛪'46'13 2° 🛪'46'18 2° 🛪'49'32 30° RM. 27°M.53'20 0° 🛪 17° 🛪'04'08 20° 🛪' 12'11 20° 🛪' 12'09 20° 🛪' 28'07 23° 🛪' 22'00 0° 🛪 13° 🛪 41'28 8° 🛪 37'55 8° 🛪 46'04 3° 🛪 43'35	0°07'28 6.07199 AU 0°-48'-17 4.03530 AU 0°-53'-29 0°53'39 6.01347 AU	asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-4071 Jun 14 j 19:45 -4071 Jun 16 j 22:43 -4071 Jul 01 j 03:37 -4071 Oct 17 j 01:16 -4071 Dec 15 j 16:42 -4071 Dec 15 j 21:30 -4070 Feb 15 j 03:30 -4070 May 18 j 03:19 -4070 Jun 22 j 23:13 -4070 Jul 05 j 11:33 -4070 Jul 06 j 06:00 -4070 Jul 06 j 05:57 -4070 Jul 19 j 09:23 -4070 Nov 02 j 19:59 -4070 Nov 16 j 19:48 -4070 Nov 30 j 19:56 -4069 Jan 16 j 16:24 -4069 Mar 19 j 05:03 -4069 Jun 14 j 21:15 -4069 Jul 24 j 19:55	11° 826'54 11° 854'55 15° 8 29° 826'24 24° 829'15 24° 827'39 19° 825'26 0° II 7° II 27'51 10° II 12'00 10° II 22'07 10° II 22'07 10° II 25'05 13° II 14'42 0° 9 0° 918'54 30° RII 25° II 25'08 25° II 19'06 20° II 21'58 0° 9 8° 915'19 10° 945'10	0°30'45 4.34534 AU 6.37495 AU 0°42'19 0°42'28 1°26'45 4.39166 AU 6.39259 AU

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4069 in astronomical counting style is the year 4070 BCE in historical counting style. -4069 Aug 06 j 17:19 11°504'55 1°13'22 minimum elong -4063 Jan 15 j 08:05 25° ₹ 23'33 0°59'00 minimum elong -4069 Aug 19 j 11:40 13°553'05 -4063 Jan 16 j 13:03 25° **₹** 40'49 morning rise max Earth dist 6.01316 AU -4069 Nov 23 j 10:58 -4063 Jan 28 j 15:51 28° ₹33'51 $0^{\circ}\Omega$ morning rise -4069 Dec 17 j 23:04 0°**Ω**56′00 -4063 Feb 03 j 17:59 0°る retrograde -4063 Jun 09 j 19:18 18°중52'58 -4068 Jan 11 j 10:48 30°Rூ retrograde 1°58'13 opposition -4068 Feb 16 j 10:47 26°904'15 opposition -4063 Aug 08 j 22:27 13°₹49'04 -1°-50'-53 4.38095 AU min. Earth dist. -4068 Feb 17 j 16:03 25°954'53 min. Earth dist. -4063 Aug 07 j 19:59 13°る57'59 4.01447 AU direct -4068 Apr 19 j 02:55 21°**©**02'53 direct -4063 Oct 05 j 22:43 8°**る**54'24 -4068 Jul 11 j 18:33 $0^{\circ}\Omega$ evening set -4062 Feb 07 j 21:49 28°る12'22 evening set -4068 Aug 23 j 23:37 8°**£**58'34 -4062 Feb 15 j 12:38 max. Earth dist. -4068 Sep 03 j 18:53 11°Ω22'39 6.35305 AU -4062 Feb 21 j 09:17 conjunction 1°≈23'05 -1°-21'-25 -4062 Feb 21 j 09:17 conjunction -4068 Sep 05 j 14:17 11° Ω 46'51 1°23'30 minimum elong 1°≈23'04 1°21'35 minimum elong -4068 Sep 05 j 14:17 11°**Ω**46'51 1°23'37 max. Earth dist. -4062 Feb 23 j 06:18 1°**≈**49'40 6.03062 AU morning rise -4068 Sep 18 j 02:47 14° **Ω**34'09 morning rise -4062 Mar 06 j 23:44 4°≈35'14 -4068 Sep 20 j 01:26 15°**Ω** -4062 Apr 23 j 07:37 15°≈ -4068 Dec 12 j 14:47 0° m retrograde -4062 Jul 16 j 01:29 24°≈37'06 retrograde -4067 Jan 18 j 02:10 2° m 00'42 min. Earth dist. -4062 Sep 12 j 11:43 19°≈41'51 4.06435 AU -4067 Feb 23 j 22:53 30°RΩ opposition -4062 Sep 13 j 17:02 19°≈31'51 -2°-1'-11 opposition -4067 Mar 19 j 23:45 $27^{\circ}\Omega$ 09'04 1° 56'43 -4062 Oct 26 j 00:38 15°R≈ min. Earth dist. $-4067 \text{ Mar } 21 \text{ j } 06:02 \quad 26^{\circ} \Omega 59'26 \quad 4.31565 \text{ AU}$ direct -4062 Nov 10 j 22:24 14°≈34'00 direct $-4067 \text{ May } 21 \text{ i } 06:21 \quad 22^{\circ} \Omega 10'20$ -4062 Nov 26 i 20:45 15°**≈** -4067 Aug 05 i 20:10 0° m -4061 Feb 28 i 16:07 0°\ evening set -4067 Sep 24 i 04:03 10° m 18'44 -4061 Mar 16 j 21:29 3°\(\)40'51 evening set max. Earth dist. -4067 Oct 05 j 03:24 12° mp 48'17 6.26708 AU -4061 Mar 30 j 14:31 6°**¥**50'31 -1°-13'-29 conjunction -4067 Oct 06 j 16:37 13° m 09'31 1°09'44 -4061 Mar 30 j 14:35 conjunction 6°\ 50'33 1°13'34 minimum elong -4067 Oct 06 j 16:41 13° m 09'32 1°09'48 -4061 Apr 01 j 11:04 max. Earth dist. 7°**升**16′14 6.10780 AU minimum elong -4067 Oct 19 j 04:21 16° M 00'06 -4061 Apr 13 j 08:53 10° **₭** 00'42 morning rise morning rise -4067 Dec 29 j 06:13 0°**♀** -4061 Aug 19 j 11:35 29° **∺** 12'55 retrograde -4066 Feb 20 j 22:40 4°**♀**10'52 -4061 Oct 17 j 21:31 24° ¥ 09'03 -1°-27'-37 retrograde opposition -4066 Apr 17 j 10:50 30° R ሺን min. Earth dist. -4061 Oct 16 j 22:13 24° ★ 16'58 4.16031 AU -4066 Apr 23 j 00:23 29° m 17'35 1°19'56 -4061 Dec 15 j 23:01 19° **★** 08'02 opposition direct -4066 Apr 23 j 23:26 29° m 10'14 4.21387 AU -4060 Mar 15 j 09:49 min. Earth dist. $0^{\circ}\Upsilon$ -4066 Jun 23 j 08:10 24° m 21'48 -4060 Apr 20 j 23:37 direct evening set 7°**Y**51'51 -4066 Aug 25 j 00:24 0°**♀** -4060 May 04 j 17:48 10°**Υ**57'27 0°-40'-4 evening set -4066 Oct 26 j 04:38 12°**£**50'33 conjunction minimum elong -4060 May 04 j 17:51 10°Υ 57'29 0°40'04 conjunction -4066 Nov 07 j 19:45 15°**Ω**46'58 0°33'58 max. Earth dist. -4060 May 05 j 19:25 11°**Υ**11'53 6.21510 AU -4066 Nov 07 j 19:47 15°**Ω**47'00 0°33'56 -4060 May 18 j 11:29 14°**Υ**02'34 minimum elong morning rise max. Earth dist. -4066 Nov 06 j 21:36 15°**2**34'03 6.15883 AU -4060 Aug 13 j 01:05 0°8 -4066 Nov 20 j 12:03 18°**△**44'10 -4060 Sep 20 j 02:11 2°816'05 morning rise retrograde -4065 Jan 12 j 02:27 0°M -4060 Oct 27 j 21:46 30°R℃ -4065 Mar 28 j 13:11 -4060 Nov 18 j 12:31 27°**Υ**15'31 0°-26'-42 retrograde 7°M50'25 opposition -4065 May 28 j 13:52 2°ML53'52 0°15'00 -4060 Nov 18 j 03:31 27°**Υ**18'33 4.26787 AU opposition min. Earth dist. $-4059 \text{ Jan } 17 \text{ j } 21:00 \quad 22^{\circ} \Upsilon 12'21$ min. Earth dist. -4065 May 28 j 20:07 2° ML51'51 4.10645 AU direct -4065 Jun 21 i 14:08 30°R <u>Ω</u> -4059 Apr 03 i 22:21 0°8 direct -4065 Jul 27 j 13:07 28° **2**00'18 asc. node -4059 Apr 24 i 09:54 3°**8**55'13 evening set desc. node -4065 Aug 17 j 16:41 28° **2**43'44 -4059 May 25 j 12:58 10°\(\mathbf{3}31'34 \) -4065 Sep 01 j 00:50 o°m. -4065 Nov 20 j 17:57 15°M -4059 Jun 08 i 03:02 13°\(\delta\)31'17 0°05'14 conjunction -4065 Nov 28 j 18:23 16° ML52'47 -4059 Jun 08 j 03:01 13°**8**31'16 0°05'21 evening set minimum elong -4059 Jun 07 j 19:03 13°**8**26'53 behind sun begin conjunction -4065 Dec 11 j 15:32 19°ML55'58 0°-14'-26 behind sun end -4059 Jun 08 j 10:58 13°**8**35'38 minimum elong -4065 Dec 11 j 15:31 19°ML55'57 0°14'36 max. Earth dist. -4059 Jun 14 j 19:39 15°**8** behind sun begin -4065 Dec 11 j 11:52 19°M 53'48 -4065 Dec 11 j 19:09 19°M 58'06 -4059 Jun 21 j 14:24 16°**8**29'34 behind sun end morning rise -4065 Dec 11 j 19:35 19°M 58'21 -4059 Aug 31 j 03:15 Π $^{\circ}0$ max. Earth dist. 6.06259 AU -4059 Oct 21 j 08:53 3°**I**I56′24 morning rise -4065 Dec 24 j 15:04 23°ML00'37 retrograde -4059 Dec 12 j 10:29 30°R℃ -4064 Jan 24 j 06:23 0°**⊼** -4059 Dec 20 j 02:07 28°**8**59'49 0°39'39 retrograde -4064 May 03 j 14:55 12°**х** 56'47 opposition opposition -4064 Jul 03 j 05:00 7°**∡** 56′19 0°-58'-9 min. Earth dist. -4059 Dec 20 j 08:22 28°**8**57'45 4.35299 AU min. Earth dist. -4064 Jul 02 j 17:27 8°**₹**00'08 4.03041 AU direct -4058 Feb 19 j 14:54 23°**8**56'04 direct -4064 Aug 30 j 23:09 3°**х** 03′18 -4058 Apr 27 j 17:17 Π $^{\circ}0$ evening set -4063 Jan 02 j 03:55 22° ₹ 15'08 evening set -4058 Jun 27 j 12:35 11°**Ⅲ**57'21 -4063 Jan 15 j 08:09 25° ₹23'35 0°-58'-48 -4058 Jul 10 j 17:57 14°**Д**50'54 0°47'40 conjunction conjunction

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4058 in astronomical counting style is the year 4059 BCE in historical counting style. -4058 Jul 10 j 17:53 14° Д 50'52 $0^{\circ}47'50$ minimum elong max. Earth dist. -4053 Dec 16 j 19:01 25°ML00'05 6.05605 AU max. Earth dist. -4058 Jul 09 j 19:29 14° II 38'35 6.37865 AU morning rise -4053 Dec 29 j 13:17 28°ML01'39

max. Earth dist.	-4058 Jul 09 j 19:29	14°Щ38'35	6.37865 AU	morning rise	-4053 Dec 29 j 13:17	28°IL01'39	
morning rise	-4058 Jul 23 j 20:09	17° Ⅱ 42'50			-4052 Jan 06 j 23:07	0° ∡ ¹	
	-4058 Sep 25 j 02:31	0 \circ \odot		retrograde	-4052 May 08 j 17:22	18° ∡ ′01′25	
retrograde	-4058 Nov 21 j 06:04	4° 5 46'05		opposition	-4052 Jul 08 j 07:39	13° ∡ 00′22	-1°-7'-18
	-4057 Jan 19 j 09:40	30°Ŗ Ⅱ		min. Earth dist.	-4052 Jul 07 j 17:00	13° ∡ ¹05'13	4.02763 AU
opposition	-4057 Jan 20 j 08:02	29° ∏ 52'45	1°32'56	direct	-4052 Sep 04 j 21:48	8° ҂ 07'13	
min. Earth dist.	-4057 Jan 21 j 05:20	29° Ⅱ 45'51	4.39145 AU	evening set	-4051 Jan 07 j 04:16	27° ∡ 19'35	
direct	-4057 Mar 23 j 18:08	24° Ⅱ 49'48			-4051 Jan 18 j 09:56	0°₹	
	-4057 May 24 j 13:07	0ಂತಾ					
evening set	-4057 Jul 29 j 06:40	12°5643'37		conjunction	-4051 Jan 20 j 09:30	0°る28'22	-1°-3'-33
max. Earth dist.	-4057 Aug 09 j 13:56		6.38834 AU	minimum elong	-4051 Jan 20 j 09:27	0° る 28'20	1°03'45
				max. Earth dist.	-4051 Jan 21 j 17:10		6.01415 AU
conjunction	-4057 Aug 11 j 03:05	15° © 32'59	1°16'02	morning rise	-4051 Feb 02 j 18:04	3° ප 38'57	
minimum elong	-4057 Aug 11 j 03:03	15° © 32'57	1°16'11	retrograde	-4051 Jun 14 j 21:20	23° る 57'15	
morning rise	-4057 Aug 23 j 20:18	18°520'51	1 1011	opposition	-4051 Aug 13 j 22:33	18°る53'00	-1°-55'-4
morning risc	-4057 Oct 21 j 19:29	0°Ω		min. Earth dist.	-4051 Aug 12 j 20:09	18 さ 33 00	4.01918 AU
							4.01916 AU
retrograde	-4057 Dec 22 j 10:02	5° Ω 26'16	2000100	direct	-4051 Oct 10 j 23:44	13° る 57'55	
opposition	-4056 Feb 20 j 23:55	0° Ω 34'39	2°00'08		-4050 Jan 30 j 00:00	0° ≈	
min. Earth dist.	-4056 Feb 22 j 04:47	0° Ω 25′26	4.37338 AU	evening set	-4050 Feb 13 j 00:05	3° ≈ 14'52	
	-4056 Feb 25 j 12:35	30°ષ્					
direct	-4056 Apr 23 j 14:29	25° © 33'40		conjunction	-4050 Feb 26 j 12:31	6° ≈ 25'37	-1°-22'-9
	-4056 Jun 19 j 08:21	0 $^{\circ}$ Ω		minimum elong	-4050 Feb 26 j 12:30	6° ≈ 25'37	1°22'18
evening set	-4056 Aug 28 j 09:58	13° Ω 31'04		max. Earth dist.	-4050 Feb 28 j 10:45	6° ≈ 52'50	6.03854 AU
	-4056 Sep 04 j 01:50	15° Ω		morning rise	-4050 Mar 12 j 03:40	9° ≈ 37'41	
max. Earth dist.	-4056 Sep 08 j 05:47	15° Ω 55'52	6.34286 AU		-4050 Apr 04 j 16:23	15° ≈	
				retrograde	-4050 Jul 20 j 22:07	29° ≈ 34'14	
conjunction	-4056 Sep 10 j 00:01	16° Ω 19'30	1°23'00	min. Earth dist.	-4050 Sep 17 j 07:11	24° ≈ 38'58	4.07477 AU
minimum elong	-4056 Sep 10 j 00:02		1°23'08	opposition	-4050 Sep 18 j 12:11	24° ≈ 29'04	-1°-58'-55
morning rise	-4056 Sep 22 j 12:04	19° Ω 07'03		direct	-4050 Nov 15 j 18:38	19° ≈ 30'46	
morning not	-4056 Nov 14 j 19:26	0° my			-4049 Feb 10 j 17:52	0° \	
retrograde	-4055 Jan 22 j 19:49	6° Mp 38'44		evening set	-4049 Mar 21 j 22:37	8° ¥ 35′26	
opposition	-4055 Mar 24 j 17:50	1°Mp47'01	1°53'34	evening set	-404) Wai 21 j 22.37	6 / (33 20	
	-4055 Mar 25 j 23:58	1° mp 37'27		aamiumatiam	-4049 Apr 04 j 16:02	11°) 44'46	-1°-10'-8
min. Earth dist.	3		4.30351 AU	conjunction	1 3		1°10'12
t' .	-4055 Apr 08 j 02:07	30°R€		minimum elong	-4049 Apr 04 j 16:06	11°) (44'49	
direct	-4055 May 25 j 23:02	26° Ω 48'46		max. Earth dist.	-4049 Apr 06 j 08:58	12°) €08'20	6.11982 AU
	-4055 Jul 11 j 21:53	0° m)		morning rise	-4049 Apr 18 j 10:48	14°) 54'33	
evening set	-4055 Sep 28 j 15:53	14° m 59'15			-4049 Jul 03 j 20:07	0° Υ	
max. Earth dist.	-4055 Oct 09 j 16:17	17° m 29'55	6.25411 AU	retrograde	-4049 Aug 24 j 02:25	3° Y ′59′34	
					-4049 Oct 14 j 14:47	30° Ŗ ₩	
conjunction	-4055 Oct 11 j 04:28	17° m 50'36	1°05'51	opposition	-4049 Oct 22 j 11:58	28° ¥ 56′03	-1°-20'-20
minimum elong	-4055 Oct 11 j 04:31	17° m 50'38	1°05'53	min. Earth dist.	-4049 Oct 21 j 14:51	29° ∺ 03'15	4.17265 AU
morning rise	-4055 Oct 23 j 16:40	20° m 41'55		direct	-4049 Dec 20 j 17:23	23° ¥ 54'39	
	-4055 Dec 06 j 03:10	0∘ ত			-4048 Feb 23 j 16:46	$0^{\circ}\mathbf{\Upsilon}$	
retrograde	-4054 Feb 25 j 19:47	8° ≏ 59'17		evening set	-4048 Apr 25 j 20:55	12° Y 35'58	
opposition	-4054 Apr 27 j 23:13	4° ഫ 05'34	1°12'06	_			
min. Earth dist.	-4054 Apr 28 j 19:11	3° ≏ 59'12	4.20092 AU	conjunction	-4048 May 09 j 15:07	15° Ƴ 41'03	0°-34'-9
	-4054 Jun 04 j 23:04	30°R, Mp		minimum elong	-4048 May 09 j 15:10	15° Ƴ 41'05	0°34'07
direct	-4054 Jun 28 j 02:36	29° m 10'09		max. Earth dist.	-4048 May 10 j 14:55	15° Y ′54′26	6.22716 AU
	-4054 Jul 21 j 04:59	0∘ <u>ರ</u>		morning rise	-4048 May 23 j 08:09	18° Y 45'25	0.22710110
evening set	-4054 Oct 30 j 20:04	0 — 17° Ω 41'03		morning rise	-4048 Jul 17 j 04:11	0°8	
evening set	-4034 Oct 30 j 20.04	17 —41 03			•	6° 8 52'34	
agniumation				ratrograda	1018 San 24 i 12:45		
conjunction	4054 Nov. 12 : 11:54	200 0 20115	0027126	retrograde	-4048 Sep 24 j 12:45		00 17! 10
	-4054 Nov 12 j 11:54	20° £ 38'15	0°27'36	opposition	-4048 Nov 22 j 23:38	1° 8 52'35	0°-17'-18
minimum elong	-4054 Nov 12 j 11:56	20° ≏ 38'16	0°27'33	Č	-4048 Nov 22 j 23:38 -4048 Nov 22 j 16:16	1° 8 52'35 1° 8 55'03	0°-17'-18 4.27861 AU
max. Earth dist.	-4054 Nov 12 j 11:56 -4054 Nov 11 j 18:26	20° △ 38'16 20° △ 28'02		opposition min. Earth dist.	-4048 Nov 22 j 23:38 -4048 Nov 22 j 16:16 -4048 Dec 07 j 07:54	1°852'35 1°855'03 30°RY	
	-4054 Nov 12 j 11:56 -4054 Nov 11 j 18:26 -4054 Nov 25 j 04:53	20° \Delta 38'16 20° \Delta 28'02 23° \Delta 36'17	0°27'33	opposition min. Earth dist. direct	-4048 Nov 22 j 23:38 -4048 Nov 22 j 16:16 -4048 Dec 07 j 07:54 -4047 Jan 22 j 11:21	1°852'35 1°855'03 30°RΥ 26°Υ49'18	
max. Earth dist. morning rise	-4054 Nov 12 j 11:56 -4054 Nov 11 j 18:26 -4054 Nov 25 j 04:53 -4054 Dec 23 j 13:41	20° £ 38'16 20° £ 28'02 23° £ 36'17 0° L	0°27'33	opposition min. Earth dist.	-4048 Nov 22 j 23:38 -4048 Nov 22 j 16:16 -4048 Dec 07 j 07:54 -4047 Jan 22 j 11:21 -4047 Mar 04 j 06:22	1°\\$52'35 1°\\$55'03 30°\\$\Y 26°\Y49'18 29°\Y17'56	
max. Earth dist.	-4054 Nov 12 j 11:56 -4054 Nov 11 j 18:26 -4054 Nov 25 j 04:53	20° \Delta 38'16 20° \Delta 28'02 23° \Delta 36'17	0°27'33	opposition min. Earth dist. direct	-4048 Nov 22 j 23:38 -4048 Nov 22 j 16:16 -4048 Dec 07 j 07:54 -4047 Jan 22 j 11:21	1°\52'35 1°\55'03 30°\KY 26°\Y49'18 29°\Y17'56 0°\S	
max. Earth dist. morning rise	-4054 Nov 12 j 11:56 -4054 Nov 11 j 18:26 -4054 Nov 25 j 04:53 -4054 Dec 23 j 13:41	20° £ 38'16 20° £ 28'02 23° £ 36'17 0° L	0°27'33	opposition min. Earth dist. direct	-4048 Nov 22 j 23:38 -4048 Nov 22 j 16:16 -4048 Dec 07 j 07:54 -4047 Jan 22 j 11:21 -4047 Mar 04 j 06:22	1°\\$52'35 1°\\$55'03 30°\\$\Y 26°\Y49'18 29°\Y17'56	
max. Earth dist. morning rise retrograde	-4054 Nov 12 j 11:56 -4054 Nov 11 j 18:26 -4054 Nov 25 j 04:53 -4054 Dec 23 j 13:41 -4053 Apr 02 j 17:02	20° £ 38'16 20° £ 28'02 23° £ 36'17 0° L 12° L 48'46	0°27'33 6.14722 AU	opposition min. Earth dist. direct	-4048 Nov 22 j 23:38 -4048 Nov 22 j 16:16 -4048 Dec 07 j 07:54 -4047 Jan 22 j 11:21 -4047 Mar 04 j 06:22 -4047 Mar 10 j 00:45	1°\852'35 1°\855'03 30°\R\Y 26°\Y49'18 29°\Y17'56 0°\8 15°\8	
max. Earth dist. morning rise retrograde opposition	-4054 Nov 12 j 11:56 -4054 Nov 11 j 18:26 -4054 Nov 25 j 04:53 -4054 Dec 23 j 13:41 -4053 Apr 02 j 17:02 -4053 Jun 02 j 16:06	20° \$\Delta 38'16 20° \$\Delta 28'02 23° \$\Delta 36'17 0° \$\mathrm{N}\$. 12° \$\mathrm{M}\$.48'46 7° \$\mathrm{M}\$.51'42	0°27'33 6.14722 AU 0°04'38	opposition min. Earth dist. direct asc. node	-4048 Nov 22 j 23:38 -4048 Nov 22 j 16:16 -4048 Dec 07 j 07:54 -4047 Jan 22 j 11:21 -4047 Mar 04 j 06:22 -4047 Mar 10 j 00:45 -4047 May 29 j 18:16	1°\852'35 1°\855'03 30°\R\Y 26°\Y49'18 29°\Y17'56 0°\8 15°\8	
max. Earth dist. morning rise retrograde opposition min. Earth dist.	-4054 Nov 12 j 11:56 -4054 Nov 11 j 18:26 -4054 Nov 25 j 04:53 -4054 Dec 23 j 13:41 -4053 Apr 02 j 17:02 -4053 Jun 02 j 16:06 -4053 Jun 02 j 20:38	20° \Delta 38'16 20° \Delta 28'02 23° \Delta 36'17 0° \mathred{\text{IL}} 12° \mathred{\text{M}} 48'46 7° \mathred{\text{M}} 51'42 7° \mathred{\text{M}} 50'14	0°27'33 6.14722 AU 0°04'38	opposition min. Earth dist. direct asc. node	-4048 Nov 22 j 23:38 -4048 Nov 22 j 16:16 -4048 Dec 07 j 07:54 -4047 Jan 22 j 11:21 -4047 Mar 04 j 06:22 -4047 Mar 10 j 00:45 -4047 May 29 j 18:16	1°\852'35 1°\855'03 30°\R\Y 26°\Y49'18 29°\Y17'56 0°\8 15°\8	
max. Earth dist. morning rise retrograde opposition min. Earth dist. desc. node	-4054 Nov 12 j 11:56 -4054 Nov 11 j 18:26 -4054 Nov 25 j 04:53 -4054 Dec 23 j 13:41 -4053 Apr 02 j 17:02 -4053 Jun 02 j 16:06 -4053 Jun 02 j 20:38 -4053 Jun 27 j 14:15	20° \$\Delta 38'16 20° \$\Delta 28'02 23° \$\Delta 36'17 0° \$\mathbb{N}\$. 12° \$\mathbb{N}\$.48'46 7° \$\mathbb{N}\$.51'42 7° \$\mathbb{N}\$.50'14 4° \$\mathbb{N}\$.51'53	0°27'33 6.14722 AU 0°04'38	opposition min. Earth dist. direct asc. node evening set	-4048 Nov 22 j 23:38 -4048 Nov 22 j 16:16 -4048 Dec 07 j 07:54 -4047 Jan 22 j 11:21 -4047 Mar 04 j 06:22 -4047 Mar 10 j 00:45 -4047 May 29 j 18:16 -4047 May 30 j 06:12	1°\852'35 1°\855'03 30°\RY 26°\Y49'18 29°\Y17'56 0°\8 15°\806'32	4.27861 AU
max. Earth dist. morning rise retrograde opposition min. Earth dist. desc. node	-4054 Nov 12 j 11:56 -4054 Nov 11 j 18:26 -4054 Nov 25 j 04:53 -4054 Dec 23 j 13:41 -4053 Apr 02 j 17:02 -4053 Jun 02 j 16:06 -4053 Jun 02 j 20:38 -4053 Jun 27 j 14:15 -4053 Aug 01 j 12:23	20° \$\Delta 38'16 20° \$\Delta 28'02 23° \$\Delta 36'17 0° \$\mathrm{M}\$. 12° \$\mathrm{M} 48'46 7° \$\mathrm{M} 51'42 7° \$\mathrm{M} 50'14 4° \$\mathrm{M} 51'53 2° \$\mathrm{M} 58'18	0°27'33 6.14722 AU 0°04'38	opposition min. Earth dist. direct asc. node evening set conjunction	-4048 Nov 22 j 23:38 -4048 Nov 22 j 16:16 -4048 Dec 07 j 07:54 -4047 Jan 22 j 11:21 -4047 Mar 04 j 06:22 -4047 Mar 10 j 00:45 -4047 May 29 j 18:16 -4047 May 30 j 06:12 -4047 Jun 12 j 19:08 -4047 Jun 12 j 19:08	1°\852'35 1°\855'03 30°\RY 26°\Y49'18 29°\Y17'56 0°\8 15°\8 15°\8 15°\806'32	4.27861 AU 0°11'37
max. Earth dist. morning rise retrograde opposition min. Earth dist. desc. node direct	-4054 Nov 12 j 11:56 -4054 Nov 11 j 18:26 -4054 Nov 25 j 04:53 -4054 Dec 23 j 13:41 -4053 Apr 02 j 17:02 -4053 Jun 02 j 16:06 -4053 Jun 02 j 20:38 -4053 Jun 27 j 14:15 -4053 Aug 01 j 12:23 -4053 Nov 03 j 11:48	20° \$\textit{\Omega}38'16 20° \$\textit{\Omega}28'02 23° \$\textit{\Omega}36'17 0° \$\textit{\Omega}12^\textit{\Omega}M.48'46 7° \$\textit{\Upsilon}L51'42 7° \$\textit{\Upsilon}L51'53 2° \$\textit{\Upsilon}L58'18 15° \$\textit{\Upsilon}L	0°27'33 6.14722 AU 0°04'38	opposition min. Earth dist. direct asc. node evening set conjunction minimum elong	-4048 Nov 22 j 23:38 -4048 Nov 22 j 16:16 -4048 Dec 07 j 07:54 -4047 Jan 22 j 11:21 -4047 Mar 04 j 06:22 -4047 Mar 10 j 00:45 -4047 May 29 j 18:16 -4047 Jun 12 j 19:08 -4047 Jun 12 j 19:08 -4047 Jun 12 j 19:08	1°\852'35 1°\855'03 30°\RY 26°\Y49'18 29°\Y17'56 0°\8 15°\806'32 18°\805'28 18°\805'28	4.27861 AU 0°11'37
max. Earth dist. morning rise retrograde opposition min. Earth dist. desc. node direct evening set	-4054 Nov 12 j 11:56 -4054 Nov 11 j 18:26 -4054 Nov 25 j 04:53 -4054 Dec 23 j 13:41 -4053 Apr 02 j 17:02 -4053 Jun 02 j 16:06 -4053 Jun 02 j 20:38 -4053 Jun 27 j 14:15 -4053 Aug 01 j 12:23 -4053 Nov 03 j 11:48 -4053 Dec 03 j 14:37	20° \$\Pi\$38'16 20° \$\Pi\$28'02 23° \$\Pi\$36'17 0° \$\mathbb{n}\$. 12° \$\mathbb{n}\$48'46 7° \$\mathbb{n}\$51'42 7° \$\mathbb{n}\$50'14 4° \$\mathbb{n}\$51'53 2° \$\mathbb{n}\$58'18 15° \$\mathbb{n}\$. 21° \$\mathbb{n}\$52'25	0°27'33 6.14722 AU 0°04'38 4.09700 AU	opposition min. Earth dist. direct asc. node evening set conjunction minimum elong behind sun begin behind sun end	-4048 Nov 22 j 23:38 -4048 Nov 22 j 16:16 -4048 Dec 07 j 07:54 -4047 Jan 22 j 11:21 -4047 Mar 04 j 06:22 -4047 Mar 10 j 00:45 -4047 May 29 j 18:16 -4047 May 30 j 06:12 -4047 Jun 12 j 19:08 -4047 Jun 12 j 19:08 -4047 Jun 12 j 13:25 -4047 Jun 13 j 00:50	1°\852'35 1°\855'03 30°\RY\ 26°\Y49'18 29°\Y17'56 0°\8 15°\806'32 18°\805'28 18°\805'28 18°\805'28 18°\805'28	4.27861 AU 0°11'37 0°11'44
max. Earth dist. morning rise retrograde opposition min. Earth dist. desc. node direct evening set conjunction	-4054 Nov 12 j 11:56 -4054 Nov 11 j 18:26 -4054 Nov 25 j 04:53 -4054 Dec 23 j 13:41 -4053 Apr 02 j 17:02 -4053 Jun 02 j 16:06 -4053 Jun 02 j 20:38 -4053 Jun 27 j 14:15 -4053 Nov 03 j 11:48 -4053 Dec 03 j 14:37	20° \$\Pi\$38'16 20° \$\Pi\$28'02 23° \$\Pi\$36'17 0° \$\mathbb{n}\$. 12° \$\mathbb{n}\$48'46 7° \$\mathbb{n}\$51'42 7° \$\mathbb{n}\$50'14 4° \$\mathbb{n}\$51'53 2° \$\mathbb{n}\$58'18 15° \$\mathbb{n}\$ 21° \$\mathbb{n}\$52'25	0°27'33 6.14722 AU 0°04'38 4.09700 AU	opposition min. Earth dist. direct asc. node evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist.	-4048 Nov 22 j 23:38 -4048 Nov 22 j 16:16 -4048 Dec 07 j 07:54 -4047 Jan 22 j 11:21 -4047 Mar 04 j 06:22 -4047 Mar 10 j 00:45 -4047 May 29 j 18:16 -4047 Jun 12 j 19:08 -4047 Jun 12 j 19:08 -4047 Jun 12 j 13:25 -4047 Jun 13 j 00:50 -4047 Jun 12 j 16:41	1°\S52'35 1°\S55'03 30°\RY' 26°\Y49'18 29°\Y17'56 0°\S 15°\S 15°\S 15°\S06'32 18°\S05'28 18°\S05'28 18°\S02'20 18°\S08'36 18°\S08'36 18°\S04'07	4.27861 AU 0°11'37
max. Earth dist. morning rise retrograde opposition min. Earth dist. desc. node direct evening set	-4054 Nov 12 j 11:56 -4054 Nov 11 j 18:26 -4054 Nov 25 j 04:53 -4054 Dec 23 j 13:41 -4053 Apr 02 j 17:02 -4053 Jun 02 j 16:06 -4053 Jun 02 j 20:38 -4053 Jun 27 j 14:15 -4053 Aug 01 j 12:23 -4053 Nov 03 j 11:48 -4053 Dec 03 j 14:37	20° \$\Pi\$38'16 20° \$\Pi\$28'02 23° \$\Pi\$36'17 0° \$\mathbb{n}\$. 12° \$\mathbb{n}\$48'46 7° \$\mathbb{n}\$51'42 7° \$\mathbb{n}\$50'14 4° \$\mathbb{n}\$51'53 2° \$\mathbb{n}\$58'18 15° \$\mathbb{n}\$ 21° \$\mathbb{n}\$52'25	0°27'33 6.14722 AU 0°04'38 4.09700 AU	opposition min. Earth dist. direct asc. node evening set conjunction minimum elong behind sun begin behind sun end	-4048 Nov 22 j 23:38 -4048 Nov 22 j 16:16 -4048 Dec 07 j 07:54 -4047 Jan 22 j 11:21 -4047 Mar 04 j 06:22 -4047 Mar 10 j 00:45 -4047 May 29 j 18:16 -4047 May 30 j 06:12 -4047 Jun 12 j 19:08 -4047 Jun 12 j 19:08 -4047 Jun 12 j 13:25 -4047 Jun 13 j 00:50	1°\852'35 1°\855'03 30°\8\Y\ 26°\Y49'18 29°\Y17'56 0°\8\ 15°\8\ 15°\806'32 18°\805'28 18°\805'28 18°\802'20 18°\808'36 18°\804'07	4.27861 AU 0°11'37 0°11'44

	•	nical year style is used: The		•	//			
cotogopation -0407 (oz. 2 g) 1817 PETP 257 04817 (oz. 2 g) 1817 2712250 04817 (oz. 2 g) 1817 04818 (oz. 2 g) 1918 04818 (oz. 2 g) 1817 04818 (oz. 2 g) 1918 04818 (oz. 2 g) 1817 04818 (oz. 2 g) 1918 04818 (oz. 2 g) 19	,							
min Earth data 404170E 24] 2013 1725/58 33920 AU colquinction 4041 Dec 21] 102 298,575 0-22 Column drice 4046 66 24] 6481 297,227 minimum clong 4041 Dec 21] 102 2978,575 0-22 Column evening et 4046 full 0, 20] 417 127022 minimum clong 4040 Dec 21] 203 0°29414 6045 Mar 28] 14 0°20414 6045 Mar 28] 14 0°20414 6045 Mar 28] 14 0°20414 1005 Mar 28] 14 0°20414 1005 Mar 28] 14 0°20414 1005 Mar 28] 14	retrograde		8° Ⅱ 25'57					
1945 1945	opposition	-4047 Dec 24 j 11:59	3° Ⅱ 29'51	0°48'17	evening set	-4041 Dec 08 j 11:29	26°M53'13	
discrete 4046 Kar 2 g) 1612 29°E 20°E 3 orientation (a) 4046 kar 2 g) 1612 29°E 20°E 3 0°F 3	min. Earth dist.	-4047 Dec 24 j 20:51	3° Ⅱ 26'56	4.35920 AU				
Compage		-4046 Jan 23 j 00:00	30°R₩		conjunction	-4041 Dec 21 j 10:24	29°M57'55	0°-28'-2
Second 1964 1964 1970 1970 1970 1989 1970 1989 1970	direct				minimum elong	-	29°M57'53	0°28'12
max max morning risk morning		-						
Compunetion	•					-		6.04585 AU
	max. Earth dist.	-4046 Jul 14 j 06:44	19° Ⅱ 06'31	6.38194 AU	-	-		
min manuma long		1016 7 1 15:0600	100 T 1011 5	0050140	-			10.14.5
		,				3		
Companies -4045 Sp. 63 22-36 0*62 -4081 May 10 17-28 0*62 -4081 May 10 18-35 4*69 1949 19-384 -4045 May 10 18-35 4*69 1949 19-384 -4045 May 10 10-10 10-30 -4045 May 10 10-10 10-30 -4045 May 10 10-10 10-30 -4045 May 10 -4045 May 10	Č	3		0-52-54		-		4.02096 AU
Post	morning risc				direct			
opposition 44945 Jan 24 ji 83.5 4 4°8 ji 949 1978.34 vini. Earth dist. 4045 Jan 26 ji 161 4 4°82 ji 291 43918.34 conjunction 4009 Jan 25 ji 13.2 5°53.93 1°27.3 1°3.70 dived direct 4045 Mar 26 ji 052 7 29°II 1707 (2000) min. Earth dist. 4009 Jan 27 ji 010 5°55.914 6014 AU 60149 AU	retrograde				evening set	-		
min Farth dist. 4045 Jan 25 j 1611 4°82 j 1750 4.3918 AU conjunction 4-039 Jan 25 j 1322 5°58 3828 1°75-75 direct 4045 Mar 28 j 0522 2°82 j 17707 max Earth dist 4-039 Jan 27 j 0010 5°58 3828 1°8040 evening set 4045 Aug 02 j 17:03 1°92 j 1721 1°92 j 1700 4039 J 1721 2°82 j 1700 4018 J 1700	•	3		1°38'34	evening sec	1059 tuni 12 j 07.02	2 02/0/	
1908 1908	• •	-			conjunction	-4039 Jan 25 i 13:22	5° ට 38'30	-1°-7'-53
direct 4.045 Mar 28 j05.27 g 2°H1707 max Earth dist 4.049 Feb 07 j22.59 g 854978 854918 g 854978 cvening set 4.045 Apr 19 j05.39 g 0°F 2 morning rise 4.049 Feb 07 j22.59 g 854978 854978 evening set 4.045 Apr 13 j21:19 j9°G3818 g 5859 AU men in Earth dist 4.049 Apr 19 j02.07 g 74°G3043 g 1-75.27 g 75°G343 g 1-75.27 g 75°G3		-			-			
Second Second 1.045 Aug 1.0 1.07 1.	direct	-4045 Mar 28 j 05:27			max. Earth dist.		5°₹59'14	6.01149 AU
max. Earth dist. -4045 Aug 13 j 21:19 19°83818 6.88550 AU min. Earth dist. -4099 Aug 17 j 21:07 24°5 3034 4.0°1.304		-4045 Apr 19 j 05:39	0ං ව		morning rise	-4039 Feb 07 j 22:59	8° る 49'38	
conjunction -4045 Aug 15 J 2:12 19°S5945 1°8724 direct -4039 Aug 19 j 0:045 2°670471 1°8724 conjunction -4045 Aug 15 J 2:12 19°S5944 1°18°34 verning set -4038 Rot 11 j 16.57 0°84 1°28°24 retrograde -4045 Cot 10 j 10.03 22°S24720 verning set -4038 Mar 13 j 16.88 1°8-82520 1°222 S nin. Earth dist -4044 Feb 26 j 19.31 4°25379 2017 V minimum clong -4038 Mar 03 j 19.08 1°8-8620 1°222 S nin. Earth dist -4044 Apr 28 j 0.44 0°30237 verning set -4038 Mar 19 j 10.03 1°8-8020 1°222 S evening set -4044 Apr 28 j 0.44 0°30237 verning set -4038 Mar 19 j 10.03 1°8-8 1°25 Mar 19 j 10.03 1°8-8 evening set -4044 Sep 10 j 19.08 18°20050 anima 1608 Mar 19 j 10.03 1°8-8 1°8-20 acesting set -4044 Sep 12 j 14.46 20°324921 12°202 min. Earth dist 4038 Sep 2 j 10.03 29°8453 4.08414 U minimum clong -4044 Sep 14 j 68.2 <t< td=""><td>evening set</td><td>-4045 Aug 02 j 17:03</td><td>17°510'47</td><td></td><td>retrograde</td><td>-4039 Jun 20 j 02:11</td><td>29°පි08'12</td><td></td></t<>	evening set	-4045 Aug 02 j 17:03	17°510'47		retrograde	-4039 Jun 20 j 02:11	29° පි 08'12	
conjunction	max. Earth dist.	-4045 Aug 13 j 21:19	19° 5 38'18	6.38550 AU	min. Earth dist.			4.02112 AU
minimum clom 4045 Aug 15 12 col ceruing set 4038 For lig j 16:33 0% at 1 col ceruing set 4048 For lig j 15:55 8 ≈ 25 col ceruing set 4045 Aug 28 j 04:31 2° 20 col ceruing set 4048 Rof oil j 19:08 11 ≈ 86:19 1 − 22 col ceruing set 4048 Mar oil j 19:08 11 ≈ 86:19 1 − 22 col 1 − 22 col ceruing set 4044 May 25 j 19:43 8 √0.39 3.673 AU max. Earth dist. 4048 Mar oil j 19:08 1 ≈ 86:20 1 ≥ 22 col 6.044 AU 1 ≥ 22 col 6.044 AU 2 ≤ 20 col 2 < 20 col 4.038 Mar lig j 10:13 1 ≥ 22 col 6.044 AU								-1°-58'-28
moming rise -4045 Aug 28 j 04:31 22*2472* evening set -4038 Feb 18 j 05:55 8*2628*		• •			direct	-		
certorgrade	_			1°18'34		-		
retrograde opposition 4.045 Dec 26 j 2-32 9°,825 5°,820 2°01°19 conjunction -4.048 Mar 03 j 19.08 11°≈36′19 12°22′16 min. Earth dist. -4.044 Feb 26 j 19.31 4°,625/393 4.36737 AU max. Earth dist. -4.048 Mar 03 j 19.08 11°≈36′29 6.0446 AU direct -4.044 Aug 19 j 01.34 15°£Q -4.038 Mar 18 j 07.03 15°% -4.048 Mar 18 j 07.03 4°%4 Mar 18 j 08.43 20°£Q±25°52 6.3388 Mar 18 j 07.03 0°% -4.038 Mar 29 j 09.037 3°% -4.048 Mar 29 j 08.43 4°%4 Ser 29 j 09.037 3°% -4.048 Mar 29 j 08.43 4°%4 Ser 29 j 09.037 3°% -4.048 Mar 29 j 08.23 4°%4 Ser 29 j 09.037 3°% -4.048 Mar 29 j 08.23 4°%4 Ser 29 j 09.037 3°% -4.048 Mar 29 j 08.23 4°%4 Ser 29 j 09.037 3°%4 Ser 29 j 10.03 3°%4 Ser 29 j 10.03 3°%4 Ser 29 j 10.03	morning rise	• •			evening set	-4038 Feb 18 J 05:55	8°≈25'28	
opposition nin. Earth dist. 4044 Feb 2 5 j 13:20 5° Q0317 2°0119 minimum clong max. Earth dist. 4048 Mar 0 3 j 10:31 1°2205 60,444 AU ded AU ded AU ded AU ded Sig 10:41 4° Q53 393 4.36737 AU max. Earth dist. 4048 Mar 0 3 j 10:31 1°2 ∞ 2° ∞ 2° № 0.044 AU ded AU ded AU ded AU ded AU ded Sig 10:31 1°3 √ 2° ∞ 2° ∞ 2° ∞ 2° № 0.044 AU ded AU ded Sig 10:31 1°3 √ 2° ∞ 2° ∞ 2° ∞ 2° № 0.044 AU ded AU ded Sig 10:31 1°3 √ 2° ∞ 2° ∞ 2° ∞ 2° ∞ 2° ∞ 2° ∞ 2° ∞ 2°	ratra ara da	-			agniumation	4029 Mar 02 : 10:09	1190026110	10 22! 16
min. Earth dist. 4044 Feb 26 j 19:31 4° £5:339 4.36737 AU max. Earth dist. 4.038 Mar 10 j 10:31 12° ≈02'59 6.0446 AU evening set 4.044 Apr 28 j 0447 6° £02'52 - 4.038 Mar 18 j 10:30 15° ≈ - evening set 4.044 Sep 1 j 19:48 8° £00'52 6.3388 AU retrograde 4.038 May 1 j 0i:30 0° ₹ conjunction 4.044 Sep 1 j 19:48 20° £0'252 6.3388 AU retrograde 4.038 Sep 22 j 05:53 29° ≈44*75 4.044 May 1 j 0i:34 4.044 Sep 1 j 08:46 20° £0'252 1° 22'02 min. Earth dist. 4.038 Sep 22 j 05:53 29° ≈44*75 4.044 May 1 j 08:46 20° £0'252 22'20 min. Earth dist. 4.038 Sep 22 j 10:31 29° ≈3506 1° 5° 5° 44 4.044 May 1 j 08:46 20° £0'4925 1° 22'08 opposition 4.038 Nov 20 j 10:30 29° ≈44*75 4.044 May 1 j 08:46 1° 5° 5° 44 4.043 May 1 j 01:30 1° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5°	•	-		201110	·	-		
direct -4044 Apr 28 j 04.47 of 0 0 0 0 0 0 0.	**					3		
cevening set -4044 Sep 0 j j p1.34 15° β -408 Sm 2000 s -408 Sm 3 j j p1.35 15° β -408 Sm 2000 s -408 Sm 3 j j p1.35 -408 Sm 3 j j p1.35 -60 mm -60		3		4.30737 AU				0.04404 AU
evening set max. Earth dist. 4-044 Sep 1g 19-08 19-08 20°Q 52°S 2 6.3338 AU retrograde retrograde 4-038 May 31 j 0:30 0°P ± (4) 47+(4) 12 10-20	uncet				morning rise	3		
max. Earth dist. -0404 Sep 12 j 14:46 20 · Ω · Ω · 25:52 6.33388 AU retrograde — 4038 Jul 2 j j 2:10 4° ×4012 conjunction -4044 Sep 14 j 08:45 20 · Ω · Ω · 49:20 min. Earth dist. -4038 Sep 2 j 0:553 20 ° ∞ · 24:35:00 3° ∞ · 24:41 AU morning rise -4044 Sep 14 j 08:45 20 · Ω · 49:25 1° 22'08 opposition -4038 Sep 2 j 0:553 29 ° ∞ · 45'3 4.0841 AU retrograde -4044 Oct 2 6 j 10:19 0° № -6043 Mar 2 j 10:30 1° № 11' evening set -4037 Mar 9 j j 11:33 0° ½ epoposition -4043 Mar 2 j 10:59 6° № 12'48 1° 49'43 evening set -4043 Mar 9 j j 1:31 1° ½ 4'8'0'12 1° ½ 6'10'14 evening set -4043 Mar 30 j 12:45 1° № 22'57 max. Earth dist. -4037 Apr 0° j 21:15 16° ¼ 48'04 1° 6'10'14 evening set -4043 Mor 30 j 12:25 1° № 22'8'5' max. Earth dist. -4037 Apr 0° j 21:15 16° ¼ 48'04 1° 0° ½ eonjunction -4043 C 1 ½ j 5:26 2° № 28'26 1° 0'13'5 retrograde -4037 Apr 2 j j 15:25 1° ½ ½ 1'5'5'14'6'16'6'6'6'6'6'16'6'6'6'6'6'6'6'6'6'	evening set					-		
conjunction -4044 Sep 14 j 0 8:45 20° β 49'24 1°22'02 mini. Earth dist. -4038 Sep 22 j 0:553 29° ≈ 44'53 4.084 Nat J Day minimum elong -4044 Sep 14 j 0 8:46 20° β 49'25 1°22'08 opposition -4038 Sep 22 j 10:31 29° ≈ 306 -1°-55'-44 morning rise -4044 Oct 26 j 10:19 0° № - - -4037 Jan 19 j 11:33 0° № - opposition -4043 Mar 29 j 10:59 6° № 12'18 1' 49'43 - - -4037 Apr 27 j 0:309 1° € 10° 6' 10° 10° 10° 10° 10° 10° 10° 10° 10° 10°	max. Earth dist.		20° Ω 25'52	6.33388 AU	retrograde	-4038 Jul 25 j 21:04	4°) 40′12	
minimum elong						-4038 Sep 20 j 09:37	30°R ≈	
moming rise 4.044 Sep 2 6 j 20:25 23° Ω3°11 direct 4.038 Nov 20 j 19:05 24°≈36°21 4.037 Jan 19 j 11:33 0°£ 24°≈36°21 4.037 Jan 19 j 11:33 0°£ 0°£ 4.043 Jan 19 j 11:13 0°£ 0°£ 4.043 Jan 19 j 11:13 0°£ 0°£ 4.061 Jan 19 j 11:13	conjunction	-4044 Sep 14 j 08:45	20° Ω 49'24	1°22'02	min. Earth dist.	-4038 Sep 22 j 05:53	29° ≈ 44'53	4.08441 AU
retrograde -4044 Oct 26 j 10:19 0°% -evening set -4037 Jan 19 j 11:33 0°%	minimum elong			1°22'08	opposition	-4038 Sep 23 j 10:31	29° ≈ 35′06	-1°-55'-44
retrograde opposition -4043 Mar 29 j 10:38 1° \ 1° \ 18 144 1° 49'43 evening set -4037 Mar 2 j 0:30; 9 3° \ 3' \ 3'02 1° 6' 10' 10' 10' 10' 10' 10' 10' 10' 10' 10	morning rise	1 3			direct	3		
opposition -4043 Mar 29 j 10:59 6°m 21'48 1°49'43 min. Earth dist. -4043 Mar 30 j 15:22 6°m 12'47 4.29196 AU conjunction -4037 Apr 09 j 21:11 16°M 460 1°06'14 evening set -4043 May 30 j 12:45 1°m 23'57 minimum elong -4037 Apr 09 j 21:15 16°M 460 1°06'14 evening set -4043 Oct 14 j 05:36 22°m 09'02 6.24091 AU morning rise -4037 Apr 11 j 14:21 1°°M 51'15'15'15'15'15'15'15'25 1°m 5'M 15'15'15'26 22°m 28'28' 1°01'35 retrograde -4037 Apr 10 j 16:04 0°°V -4037 Jun 09 j 16:04 0°°V 1°1'35'15'25 1°01'36 minim Earth dist -4037 Oct 27 j 05:28 3°°Y 5'815 4.18733 AU 403'7 Oct 27 j 05:28 3°°Y 5'815 4.18733 AU 403'7 Oct 27 j 05:28 3°°Y 5'815 4.18733 AU 403'7 Oct 27 j 05:28 3°°Y 5'815 4.18733 AU 404'14'14'14'14'14'14'14'14'14'14'14'14'14		-				-		
min. Earth dist. -4043 Mar 30 j 15:22 6°m 1247 4.29196 AU conjunction -4037 Apr 09 j 21:13 16° 48'04 1°06'14 evening set -4043 May 30 j 12:45 1°m 23'57 max. Earth dist. -4037 Apr 09 j 21:15 16° 48'06 1°06'14 evening set -4043 Oct 14 j 05:36 2°m 09'02 6.24091 AU max. Earth dist. -4037 Apr 13 j 15:55 19° 45'718 6.13257 AU max. Earth dist. -4043 Oct 15 j 15:23 2°m 09'02 6.24091 AU morning rise -4037 Apr 23 j 15:55 19° 45'718 6.13257 AU conjunction -4043 Oct 15 j 15:23 2°m 09'02 6.24091 AU morning rise -4037 Aug 28 j 20:36 8°°Y54'35 4.18733 AU morning rise -4043 Oct 28 j 03:54 2°m 02'02 opposition -4037 Oct 26 j 09:40 3°°Y5'13 4.18733 AU retrograde -4042 May 02 j 18:25 13°m 24'49 direct -4037 Nov 28 j 20:56 30°% Y1'32 1°°12'18 opposition -4042 May 03 j 16:25 8°m 24'35 1°03'50 evening set -4036 May 14j 14:57 20°°Y3'15 0°2'7 ret	•	3		1040142	evening set	-4037 Mar 27 j 03:09	13° ∺ 39′02	
direct -4043 May 30 j 12:45 1°m 23'57 minimum elong -4037 Apr 09 j 21:15 16° 48'06 1°06'14 evening set -4043 Oct 03 j 02:39 19° m36'28 max. Earth dist. -4037 Apr 11 j 14:12 17° ¥11'37 6.13257 AU max. Earth dist. -4043 Oct 14 j 05:36 22° my 09'02 6.24091 AU morning rise -4037 Apr 13 j 15:55 19° ¥57'18 -1037 Apr 09'j 16:04 0°° conjunction -4043 Oct 15 j 15:23 22° my 28'24 1°01'35 retrograde -4037 Aug 28 j 20:36 8° Y58'15 4.18733 AU morning rise -4043 Oct 28 j 03:54 25° m 20'26 1°01'36 min. Earth dist. -4037 Oct 27 j 05:28 3° Y51'32 -1°-12'-18 retrograde -4042 Mar 02 j 18:52 13° 24'449 direct -4037 Nov 28 j 20:56 30° ¾ 1°-12'-18 retrograde -4042 May 03 j 16:25 8° 24'436 1°03'50 -4036 Apr 30 j 21:20 17° Y27'40 1°-27'-22'-18 direct -4042 May 03 j 16:25 8° 24'36 4.18663 AU evening set -4036 May 14 j 14:57 20° Y3'155 0°-27'-52 ma						4027 4 00 : 21 11	1.60 1/ 4010 4	10 (1.10
evening set 4.4043 Oct 0.3 0.2:39 19°		3		4.29196 AU	-			
max. Earth dist.					•			
conjunction	•		· ·	6 24091 AU				0.13237710
conjunction -4043 Oct 15 j 15:23 22° № 28° 24 1°01'35 retrograde -4037 Aug 28 j 20:36 8°° 54'35 -4043 Aug 28 j 20:36 8°° 54'35 -4043 Aug 28 j 20:36 8°° 54'35 -4043 Aug 28 j 20:36 3°° 58'15 4.18733 AU morning rise -4043 Oct 28 j 03:54 25° № 20'26 1°01'36 min. Earth dist. -4037 Oct 27 j 05:28 3°° 51'32 -1°-12'-18 retrograde -4043 Nov 18 j 00:13 0°° 4037 Nov 28 j 20:56 30° №) -1°-12'-18 opposition -4042 May 02 j 21:13 8° № 50'44 1°03'50 4036 Jan 21 j 16:37 0°° 0°° min. Earth dist. -4042 May 03 j 16:25 8° № 44'36 4.18663 AU evening set -4036 Apr 30 j 21:20 1°° № 27'40 -4042 Mor 10'22'12'14 2°° № 31'53 0°° № evening set -4042 Nov 04 j 10:52 22° № 29'31 conjunction -4036 May 14 j 14:57 20° № 31'53 0°° 27'-52 max. Earth dist. -4042 Nov 17 j 03:23 25° № 18'34 6.13314 AU minimum elong -4036 May 14 j 15:50 20° № 31'53 0°2 № 43'17 6.24296 AU conjuncti	man. Darun dist.	.0.5 000 1.1,00.50	,, 0, 0_	0.2.071110	merming nee			
minimum elong morning rise -4043 Oct 15 j 15:26 22° 128'26 1°01'36 min. Earth dist. -4037 Oct 26 j 09:40 3° 165'15 4.1873 AU morning rise -4043 Nov 18 j 00:13 0° 12 -4042 May 02 j 18:52 13° 16:25 8° 16:44' 49 -4036 May 14 j 16:37 0° 12 0° 12 -4036 May 14 j 16:37 0° 12 0° 12 -4036 May 14 j 16:37 0° 12 0° 12 -4036 May 14 j 16:37 0° 12 0	conjunction	-4043 Oct 15 j 15:23	22° m 28'24	1°01'35	retrograde	-		
morning rise -4043 Oct 28 j 03:54 25° m 20'26 opposition -4037 Oct 27 j 05:28 3° Y 51'32 -1°-12'-18' retrograde -4043 Nov 18 j 00:13 0° m -4037 Nov 28 j 20:56 30° m 4 opposition -4042 May 02 j 18:52 13° m 44'49 direct -4037 Dec 25 j 14:44 28° m 49'53 -40'80 Jan 21 j 16:37 0° Y min. Earth dist. -4042 May 03 j 16:25 8° m 44'36 418663 AU evening set -4036 Jan 21 j 16:37 0° Y 17° Y 27'40 -40'2 V 21'20 0° 27'49	-	3	22° m/28'26		-			4.18733 AU
retrograde	_	-4043 Oct 28 j 03:54	25° m 20'26		opposition	-	3° Y 51′32	-1°-12'-18
opposition -4042 May 02 j 21:13 8° ± 50:44 1°03'50 -4036 Jan 21 j 16:37 0° γ 0° γ -4036 Jan 21 j 16:37 0° γ <		-4043 Nov 18 j 00:13	0∘ ত					
min. Earth dist.	•	-			direct			
direct						-		
evening set				4.18663 AU	evening set	-4036 Apr 30 j 21:20	17° 'Y' 27'40	
max. Earth dist.		3				102636 14:14.55	2000021154	00 271 52
max. Earth dist.	•	3		C 12214 ATT	-			
conjunction -4042 Nov 17 j 03:23 25° \(\Omega\)27'37 0°21'03 morning rise -4036 May 28 j 07:28 23° \(\Omega\)35'20 -4036 Jun 27 j 02:38 23° \(\Omega\)35'20 -4036 Jun 27 j 02:38 0°8 morning rise -4042 Nov 29 j 21:26 28° \(\Omega\)26'43 retrograde -4036 Sep 29 j 00:08 11° \(\Omega\)34'35 0°-7'-40 -4042 Dec 06 j 14:18 0° \(\Omega\)L opposition -4036 Nov 27 j 12:38 6° \(\Omega\)37'01 4.29443 AU retrograde -4041 Feb 23 j 17:06 15° \(\Omega\)L min. Earth dist. -4036 Nov 27 j 06:55 6° \(\Omega\)37'01 4.29443 AU retrograde -4041 Apr 07 j 19:11 17° \(\Omega\)46'41 asc. node -4035 Jan 11 j 12:49 1° \(\Omega\)55'16 desc. node -4041 May 07 j 14:34 16° \(\Omega\)24'59 direct -4035 Jan 27 j 05:14 1° \(\Omega\)31'41 -4041 May 21 j 08:28 15° \(\Omega\)RIL evening set -4035 Jun 04 j 00:14 19° \(\Omega\)44'53	max. Earni dist.	-4042 NOV 10 J 11:33	25 == 18'34	0.13314 AU				
minimum elong	conjunction	-4042 Nov 17 i 03:23	25° Q 27'37	0°21'03				0.47470 AU
morning rise -4042 Nov 29 j 21:26 28° \(\textit{\Omega}\) 26'43	-				morning 1150			
-4042 Dec 06 j 14:18 0°ML opposition -4036 Nov 27 j 12:38 6°\mathbb{8}35'06 0°\mathbb{-7'-40} -4041 Feb 23 j 17:06 15°ML min. Earth dist4036 Nov 27 j 06:55 6°\mathbb{8}37'01 4.29443 AU retrograde -4041 Apr 07 j 19:11 17°ML46'41 asc. node -4035 Jan 11 j 12:49 1°\mathbb{8}55'16 desc. node -4041 May 07 j 14:34 16°ML24'59 direct -4035 Jan 27 j 05:14 1°\mathbb{8}31'41 -4041 May 21 j 08:28 15°\mathbb{R}\mathbb{L}	Č	·			retrograde	-		
-4041 Feb 23 j 17:06 15° TL min. Earth dist4036 Nov 27 j 06:55 6° 837'01 4.29443 AU retrograde	<i>3</i>	·			-			0°-7'-40
retrograde		·				-		
-4041 May 21 j 08:28 15°RM -4035 May 12 j 19:45 15°8 opposition -4041 Jun 07 j 18:03 12°M49'05 0°-5'-48 evening set -4035 Jun 04 j 00:14 19°8 44'53	retrograde	-4041 Apr 07 j 19:11	17° M 46'41		asc. node			
opposition -4041 Jun 07 j 18:03 12°ML49'05 0°-5'-48 evening set -4035 Jun 04 j 00:14 19°844'53	desc. node	-4041 May 07 j 14:34	16°M24'59		direct	-4035 Jan 27 j 05:14	1° 8 31'41	
·								
min. Earth dist4041 Jun 07 j 19:13 12° TL 48'43 4.08432 AU		-			evening set	-4035 Jun 04 j 00:14	19° 8 44'53	
	min. Earth dist.	-4041 Jun 07 j 19:13	12°M48'43	4.08432 AU				

•	ical year style is used: Th		•	/ /			ige 33
	-4035 Jun 17 j 12:08			min. Earth dist.			
conjunction				iiiii. Eartii dist.	-4029 Jun 12 j 17:23		4.00/19 AU
minimum elong	-4035 Jun 17 j 12:07		0°18'06	T' 4	-4029 Jul 04 j 11:11		
max. Earth dist.	-4035 Jun 17 j 08:22		6.33899 AU	direct	-4029 Aug 11 j 03:57		
morning rise	-4035 Jun 30 j 21:05				-4029 Sep 17 j 06:35		
	-4035 Jul 21 j 03:40	0°II			-4029 Dec 05 j 12:46	0° ⊀ 10 ₹ 50100	
retrograde	-4035 Oct 30 j 01:53	12° ∏ 56′02		evening set	-4029 Dec 13 j 07:21	1° ∡ 750′00	
opposition	-4035 Dec 28 j 21:56	8° Ⅱ 00′26	0°56'32				
min. Earth dist.	-4035 Dec 29 j 08:08	7° I 57'05	4.37219 AU	conjunction	-4029 Dec 26 j 07:28	4° ₹ 55'51	0°-34'-25
direct	-4034 Feb 28 j 18:52	2° ∏ 56'48		minimum elong	-4029 Dec 26 j 07:25	4° ₹ 55'49	0°34'35
evening set	-4034 Jul 06 j 13:33	20°∏53'23		max. Earth dist.	-4029 Dec 26 j 21:19	5° ∡ ¹04'07	6.03103 AU
		_		morning rise	-4028 Jan 08 j 10:29	8° ∡ 03'23	
conjunction	-4034 Jul 19 j 16:13	23° ∏ 45'17	0°57'21	retrograde	-4028 May 19 j 05:01	28° ≯ 15'15	
minimum elong	-4034 Jul 19 j 16:09	23° ∏ 45′15	0°57'32	opposition	-4028 Jul 18 j 14:18	23° ∡ 13'15	-1°-24'-8
max. Earth dist.	-4034 Jul 18 j 13:17	23° Ⅱ 30'32	6.39178 AU	min. Earth dist.	-4028 Jul 17 j 19:58	23° ∡ 19′21	4.01032 AU
morning rise	-4034 Aug 01 j 15:40	26° Ⅱ 35'33		direct	-4028 Sep 14 j 22:01	18° ∡ 19'48	
	-4034 Aug 17 j 12:30	0 \circ ∞			-4028 Dec 15 j 00:41	0°ಕ	
retrograde	-4034 Nov 29 j 20:57	13° © 35'02		evening set	-4027 Jan 17 j 10:26	7° る 38'28	
opposition	-4033 Jan 29 j 03:25	8° ॐ 42'16	1°43'25				
min. Earth dist.	-4033 Jan 30 j 03:08	8° ॐ 34'37	4.39802 AU	conjunction	-4027 Jan 30 j 17:49	10° る 48'35	-1°-11'-36
direct	-4033 Apr 01 j 17:26	3° 5 39'42		minimum elong	-4027 Jan 30 j 17:46	10° る 48'33	1°11'47
evening set	-4033 Aug 07 j 00:04	21° © 31'11		max. Earth dist.	-4027 Feb 01 j 06:18	11° る 10'21	6.00578 AU
max. Earth dist.	-4033 Aug 18 j 03:02	23° © 57'58	6.38737 AU	morning rise	-4027 Feb 13 i 04:42		
					-4027 May 02 j 11:42	0° ≈	
conjunction	-4033 Aug 19 j 18:15	24°919'36	1°20'13	retrograde	-4027 Jun 25 j 06:16	4° ≈ 20'11	
minimum elong	-4033 Aug 19 j 18:14	24°9519'35	1°20'23		-4027 Aug 18 j 15:40		
morning rise	-4033 Sep 01 j 09:24	27°506'40	1 20 23	min. Earth dist.	-4027 Aug 22 j 22:15		4.02109 AU
morning rise	-4033 Sep 01 j 05:24	0°Ω		opposition	-4027 Aug 24 j 03:23		-2°00'-51
retrograde	-4033 Dec 31 j 05:09	14° Ω 14'52		direct	-4027 Oct 21 j 02:46		-2 00-31
opposition	-4032 Feb 29 j 22:54	9° Ω 23'21	2°01'40	direct	-4027 Dec 20 j 17:35	0°≈	
min. Earth dist.	-4032 Mar 02 j 05:06	9° Ω 13'44	4.36480 AU	evening set	-4027 Bec 20 j 17:33	0 ∞ 13°≈37'28	
direct	-4032 May 02 j 13:33	4° Ω 22'59	4.30460 AU	evening set	,		
direct	, ,				-4026 Mar 01 j 10:05	13 🕿	
	-4032 Aug 02 j 11:57				4026 M-= 00 : 02.12	1.000 0.4012.1	10 211 40
evening set	-4032 Sep 06 j 00:20		(22(01 ATT	conjunction	-4026 Mar 09 j 03:13	16°≈48'31	-1°-21'-40
max. Earth dist.	-4032 Sep 16 j 18:23	24° Ω 45'30	6.32691 AU	minimum elong	-4026 Mar 09 j 03:14		1°21'48
				max. Earth dist.	· · · · · · · · · · · · · · · · · · ·	17°≈16'40	6.05034 AU
conjunction	-4032 Sep 18 j 13:21	25° Ω 09'38	1°20'35	morning rise	-4026 Mar 22 j 19:50		
minimum elong	-4032 Sep 18 j 13:23		1°20'41		-4026 May 07 j 09:21	0° ∀	
morning rise	-4032 Oct 01 j 00:52			retrograde	-4026 Jul 30 j 21:53	9°) 47′03	
	-4032 Oct 10 j 05:30	0° ™		min. Earth dist.	-4026 Sep 27 j 05:16	4° ¥ 51'37	4.09498 AU
retrograde	-4031 Jan 31 j 23:54	15°M 38'38		opposition	-4026 Sep 28 j 09:18	4°) 42′02	-1°-51'-33
opposition	-4031 Apr 03 j 00:11	10°Mp46'31	1°45'20		-4026 Nov 12 j 21:34	30° Ŗ ≈	
min. Earth dist.	-4031 Apr 04 j 05:28	10° Mp 37'12	4.28068 AU	direct	-4026 Nov 25 j 20:21	29° ≈ 42'51	
direct	-4031 Jun 04 j 00:32	5° ™ 48'55			-4026 Dec 08 j 20:55	0°)	
evening set	-4031 Oct 07 j 09:12	24°Mp03'35		evening set	-4025 Apr 01 j 08:32	18°) 42′52	
conjunction	-4031 Oct 19 j 22:19	26°№56'16	0°57'05	conjunction	-4025 Apr 15 j 02:46	21°) €51′24	-1°-1'-39
minimum elong	-4031 Oct 19 j 22:22	26° № 56'17	0°57'07	minimum elong	-4025 Apr 15 j 02:50	21°) €51′27	1°01'42
max. Earth dist.	-4031 Oct 18 j 13:16	26° Mp 37′15	6.22635 AU	max. Earth dist.	-4025 Apr 16 j 17:47		6.14688 AU
morning rise	-4031 Nov 01 j 11:21	29° m 49'08		morning rise	-4025 Apr 28 j 21:42		
-	-4031 Nov 02 j 06:22	0∘ ত		-	-4025 May 21 j 10:22	0° Υ	
retrograde	-4030 Mar 07 j 12:23	18° ≏ 21'11		retrograde	-4025 Sep 02 j 12:31	13° Ƴ 48'38	
opposition	-4030 May 07 j 15:18	13° ≏ 26'42	0°55'27	opposition	-4025 Oct 31 j 22:42	8° Ƴ 45'55	-1°-3'-44
min. Earth dist.	-4030 May 08 j 08:25	13° ≏ 21'13	4.16969 AU	min. Earth dist.	-4025 Oct 31 j 03:42	8° Ƴ 52'22	4.20352 AU
direct	-4030 Jul 07 j 10:04	8° £ 31'54		direct	-4025 Dec 30 j 12:00	3° Y 43'53	
evening set	-4030 Nov 08 j 22:56			evening set	-4024 May 05 j 21:02		
evening sec	.0501.0. 00 j 22 .00	27 —10 00		evening sec	.02	22 , 1750	
conjunction	-4030 Nov 21 j 16:14	0° M 09'17	0°14'35	conjunction	-4024 May 19 j 14:12	25° Y 20'49	0°-21'-23
minimum elong	-4030 Nov 21 j 16:15	0°M09'18	0°14'30	minimum elong	-4024 May 19 j 14:13	25° Y 20'50	0°21'19
behind sun begin	-4030 Nov 21 j 10:13	0°M07'06	0 17 30	max. Earth dist.	-4024 May 19 j 14.13 -4024 May 20 j 07:53	25° Υ 30'41	6.25959 AU
behind sun begin	•	0°M11'30					0.43737 AU
	-4030 Nov 21 j 20:01		6 115/11 ATT	morning rise	-4024 Jun 02 j 05:48		
max. Earth dist.	-4030 Nov 21 j 03:10	0°M01'36	6.11541 AU		-4024 Jun 09 j 13:41	0°8	
	-4030 Nov 21 j 00:26	0°M		, 1	-4024 Sep 05 j 15:02		
morning rise	-4030 Dec 04 j 11:17	3°M09'37		retrograde	-4024 Oct 03 j 12:33	16° 8 14'35	
	-4029 Jan 28 j 14:02	15°M			-4024 Oct 31 j 05:07		
desc. node	-4029 Mar 19 j 11:12	21°M43'10		asc. node	-4024 Nov 20 j 06:55		
retrograde	-4029 Apr 12 j 21:19	22°M38'38	00.151	opposition	-4024 Dec 02 j 01:23		0°02'01
opposition	-4029 Jun 12 j 17:31	17°M40'30	0°-15'-55	min. Earth dist.	-4024 Dec 01 j 22:13	11° ठ 16'44	4.30964 AU

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4023 in astronomical counting style is the year 4024 BCE in historical counting style. direct -4023 Jan 31 j 23:21 6°812'09 max. Earth dist. -4018 Nov 26 i 03:12 5°ML03'54 6.09967 AU -4023 Apr 24 j 02:38 15°8 -4018 Dec 09 j 08:06 morning rise 8°M,10'33 -4023 Jun 08 j 17:39 24°**8**21'40 -4017 Jan 08 j 09:42 15°M evening set -4017 Jan 26 j 09:19 18°M42'40 desc. node -4023 Jun 22 j 04:18 27°**8**18'31 0°24'16 -4017 Apr 18 j 04:12 27°**M**.47'29 conjunction retrograde -4023 Jun 22 j 04:16 27°**8**18'30 -4017 Jun 17 j 23:23 0°-26'-34 minimum elong 0°24'25 opposition 22°M48'51 -4023 Jun 21 j 20:19 27°**8**14'09 -4017 Jun 17 j 20:04 22°M 49'56 max. Earth dist. 6.35131 AU min. Earth dist. 4.05495 AU -4023 Jul 04 j 10:43 $0^{\circ}\Pi$ direct -4017 Aug 16 j 04:39 17°M55'51 morning rise -4023 Jul 05 j 12:00 0°**Ⅱ**13'48 -4017 Nov 17 j 18:09 0°**∡** retrograde -4023 Nov 03 j 10:18 17°**Д**26'11 evening set -4017 Dec 18 j 09:05 7°**∡**01'41 opposition -4022 Jan 02 j 08:14 12°**II**31'03 1°04'35 -4017 Dec 31 j 10:04 10° ₹ 08'18 0°-40'-53 min. Earth dist. -4022 Jan 02 j 20:30 12°**Ⅲ**27'02 4.38090 AU conjunction -4017 Dec 31 j 10:01 10° ₹08'16 direct -4022 Mar 05 j 08:24 7°**Ⅲ**27'27 minimum elong 0°41'05 evening set -4022 Jul 11 j 01:53 25°**Ⅲ**22'11 max. Earth dist. -4016 Jan 01 j 03:13 10°**х** 18'32 6.02342 AU max. Earth dist. -4022 Jul 22 j 22:47 27°**Ⅲ**57'44 6.39611 AU morning rise -4016 Jan 13 j 14:20 13°**∡**16'41 -4016 Apr 06 j 01:41 0°정 conjunction -4022 Jul 24 j 03:18 28°**Д**13'22 1°01'47 retrograde -4016 May 24 j 12:41 3°**る**31'58 minimum elong -4022 Jul 24 j 03:15 28°**Ⅲ**13'20 -4016 Jul 12 j 09:40 30°R **√** -4022 Aug 01 j 05:59 0ಂತಾ opposition -4016 Jul 23 j 20:45 28° ₹ 29'25 -1°-31'-50 morning rise -4022 Aug 06 j 01:17 1°902'53 min. Earth dist. -4016 Jul 22 j 23:36 28°**✗** 36'29 4.00853 AU retrograde -4022 Dec 04 j 05:50 18°501'41 direct -4016 Sep 20 j 02:28 23° ₹35'42 opposition -4021 Feb 02 i 14:12 13°509'15 1°47'56 -4016 Nov 23 i 17:54 0°ਰ min. Earth dist. -4021 Feb 03 i 15:18 13°501'11 4.39783 AU evening set -4015 Jan 22 j 16:41 12°る54'47 direct -4021 Apr 06 j 05:20 8°506'59 -4021 Aug 11 j 09:35 25°558'31 conjunction -4015 Feb 05 i 01:13 16° ₹ 05'10 -1°-14'-53 evening set -4021 Aug 22 j 08:38 28°523'28 -4015 Feb 05 i 01:10 16° ₹ 05'09 1°15'05 max. Earth dist. 6.38241 AU minimum elong max. Earth dist. -4015 Feb 06 j 18:08 16°る29'31 6.00995 AU -4021 Aug 24 j 02:40 28°5546'43 1°21'43 -4015 Feb 18 j 12:51 19°る17'12 conjunction morning rise -4021 Aug 24 j 02:39 28°546'42 1°21'52 -4015 Apr 07 j 23:10 minimum elong 0°≈≈ -4021 Aug 29 j 15:14 0°**Ω** -4015 Jun 30 j 10:49 retrograde 9°≈33'26 -4021 Sep 05 j 17:11 -4015 Aug 28 j 00:39 1°**Ω**33'41 min. Earth dist. 4°≈38'21 4.03093 AU morning rise -4021 Nov 15 j 05:35 15°**Ω** -4015 Aug 29 j 05:56 4°≈28'24 -2°-2'-18 opposition -4020 Jan 04 j 18:57 18°**Ω**45'10 -4015 Oct 09 j 19:30 30°R 궁 retrograde -4020 Feb 25 j 18:47 15°RΩ -4015 Oct 26 j 06:18 29°る32'03 direct -4020 Mar 05 j 13:07 $13^{\circ}\Omega$ 53'42 $2^{\circ}01'30$ -4015 Nov 11 j 17:59 opposition 0°≈ -4020 Mar 06 j 20:26 13° **Ω** 43'43 4.35542 AU min. Earth dist. -4014 Feb 12 j 07:12 15°≈ -4020 May 07 j 03:01 8° **Ω**53'39 -4014 Feb 28 j 19:04 18°≈47'06 direct evening set -4020 Jul 13 j 06:55 15°**Ω** evening set -4020 Sep 10 j 09:48 26° **Ω**53'41 conjunction -4014 Mar 14 j 10:00 21°≈57'47 -1°-20'-30 max. Earth dist. -4020 Sep 21 j 05:06 29°**Ω**19'16 6.31388 AU minimum elong -4014 Mar 14 j 10:01 21°≈57'48 1°20'37 max. Earth dist. -4014 Mar 16 j 09:14 22°≈25'22 6.06460 AU -4020 Sep 22 j 22:43 29° **Ω** 42'44 1°18'39 -4014 Mar 28 j 03:18 25°≈09'29 conjunction morning rise -4020 Sep 22 j 22:44 29° **Ω** 42'45 -4014 Apr 18 j 11:10 0°**)**€ minimum elong -4020 Sep 24 j 05:21 retrograde -4020 Oct 05 j 10:00 2° Mg 31'11 -4014 Oct 02 j 01:11 9° **€** 51'56 4.11210 AU morning rise min. Earth dist. -4019 Feb 05 i 18:00 20° m 18'49 retrograde opposition -4014 Oct 03 i 05:10 9° \(\frac{1}{2}\)42'23 -1°-46'-39 -4019 Apr 07 j 19:26 15° m 26'31 opposition direct -4014 Nov 30 j 19:11 4°) 42'41 -4019 Apr 08 j 23:14 15° m 17'40 min. Earth dist. 4.26486 AU evening set -4013 Apr 06 j 10:08 23° ¥ 37'57 direct -4019 Jun 08 j 15:18 10° m 29'22 -4019 Oct 11 j 22:13 28° m 47'35 -4013 Apr 20 j 04:31 26° ¥45'44 0°-56'-52 evening set conjunction -4019 Oct 17 j 04:19 0∘**ত** -4013 Apr 20 j 04:35 26° \(\frac{1}{2}\)45'46 0°56'54 minimum elong max. Earth dist. -4019 Oct 23 j 04:08 1°**£**22'57 6.20915 AU -4013 Apr 21 j 16:42 27° **★** 06'20 max. Earth dist. 6.16543 AU -4013 May 03 j 23:11 29° ¥ 53'25 morning rise conjunction -4019 Oct 24 j 11:36 1°**2**41'07 0°51'59 -4013 May 04 j 10:51 0° minimum elong -4019 Oct 24 j 11:39 1°**≏**41'09 0°51'59 retrograde -4013 Sep 07 j 02:44 18° Υ32'32 morning rise -4019 Nov 06 j 01:22 4°**£**35'02 opposition -4013 Nov 05 j 12:15 13°**Υ**30'17 0°-55'-3 retrograde -4018 Mar 12 j 15:27 23°**♀**15'44 min. Earth dist. -4013 Nov 04 j 20:16 13°**Υ**35'42 4.22145 AU -4018 May 12 j 16:38 18°**2**20'50 0°46'07 -4012 Jan 04 j 07:18 8°**Y**27'55 opposition direct -4018 May 13 j 08:04 18°**△**15'52 -4012 May 10 j 16:31 26°**Υ**57'05 min. Earth dist. 4.15229 AU evening set -4018 Jul 12 j 07:05 13°**Ω**26'20 direct -4012 May 24 j 09:04 29°**Υ**'59'28 0°-14'-59 -4018 Nov 04 j 12:15 0°M conjunction evening set -4018 Nov 13 j 17:41 2°M08'45 minimum elong -4012 May 24 j 09:05 29°**Y**59'29 0°14'56 behind sun begin -4012 May 24 j 06:22 29°**Υ**57'58 conjunction -4018 Nov 26 j 11:59 5°ML09'03 0°07'36 behind sun end -4012 May 24 j 11:49 0°**8**00'59 minimum elong -4018 Nov 26 j 12:00 5°**™**09'04 0°07'31 -4012 May 24 j 10:01 0°8 behind sun begin -4018 Nov 26 j 04:39 5°M04'45 max. Earth dist. -4012 May 24 j 23:04 0°**8**07'14 6.27549 AU

-4012 Jun 06 j 23:47

morning rise

3°**8**00'47

-4018 Nov 26 j 19:20

5°M13'22

behind sun end

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, page 35 Attention, astronomical year style is used: The year -4012 in astronomical counting style is the year 4013 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	ne year -4012	in astronomical cou	nting style is the year	4013 BCE in historical of	counting style.	
	-4012 Aug 05 j 22:39	-		evening set	-4006 Nov 18 j 14:10		
asc. node	-4012 Sep 30 j 14:10	20° 8 39'58					
retrograde	-4012 Oct 07 j 19:49	20° 8 45'09		conjunction	-4006 Dec 01 j 09:10	10°M11'21	0°00'27
opposition	-4012 Dec 06 j 10:29	15° 8 46'47	0°11'20	minimum elong	-4006 Dec 01 j 09:09	10° ™ 11′21	0°00'21
min. Earth dist.	-4012 Dec 06 j 09:11	15° 8 47'13	4.32236 AU	behind sun begin	-4006 Dec 01 j 01:06	10° ™ 06'37	
	-4012 Dec 12 j 07:36	15° ₹ 8		behind sun end	-4006 Dec 01 j 17:12	10°M16'05	
direct	-4011 Feb 05 j 11:40	10° 8 43'06		max. Earth dist.	-4006 Dec 01 j 03:23	10° M 07′58	6.08746 AU
	-4011 Apr 01 j 13:50	15° ∀		desc. node	-4006 Dec 04 j 21:28	11°M01'13	
evening set	-4011 Jun 13 j 07:36	28° 8 50'04		morning rise	-4006 Dec 14 j 06:27	13°M13'52	
	-4011 Jun 18 j 15:41	$\Pi^{\circ}0$		_	-4006 Dec 21 j 20:08	15° ™	
	J				-4005 Mar 10 j 02:44	0° ∡ ¹	
conjunction	-4011 Jun 26 j 17:02	1° Ⅱ 46'04	0°30'13	retrograde	-4005 Apr 23 j 10:38	2° ∡ ¹57'05	
minimum elong	-4011 Jun 26 j 16:59	1° Ⅱ 46′02	0°30'22	C	-4005 Jun 07 j 05:15	30°RM₀	
max. Earth dist.	-4011 Jun 26 j 05:09		6.35990 AU	opposition	-4005 Jun 23 j 05:17		0°-37'-3
morning rise	-4011 Jul 09 j 23:26	4° Ⅱ 40′28		min. Earth dist.	-4005 Jun 22 j 22:38		4.04682 AU
retrograde	-4011 Nov 07 j 18:24	21° Ⅱ 49'50		direct	-4005 Aug 21 j 06:58		
opposition	-4010 Jan 06 j 16:30	16° Ⅱ 55'12	1°12'03		-4005 Oct 28 j 05:58	0° ∡ ¹	
min. Earth dist.	-4010 Jan 07 j 07:43		4.38493 AU	evening set	-4005 Dec 23 j 11:00		
direct	-4010 Mar 09 j 19:54	11° Ⅲ 51'43					
evening set	-4010 Jul 15 j 12:02	29° Ⅱ 46′03		conjunction	-4004 Jan 05 j 13:08	15° ∡ 19'45	0°-47'-2
e vennig see	-4010 Jul 16 j 13:41	0.00 2.003		minimum elong	-4004 Jan 05 j 13:05		0°47'13
max. Earth dist.	-4010 Jul 27 j 04:10		6.39501 AU	max. Earth dist.	-4004 Jan 06 j 11:34		6.02000 AU
max. Earth dist.	4010 Jul 27 J 04.10	2 31710	0.57501710	morning rise	-4004 Jan 18 j 18:18		0.02000710
conjunction	-4010 Jul 28 j 12:12	2° © 36'45	1°05'47	morning risc	-4004 Mar 11 j 03:06	0°る。	
minimum elong	-4010 Jul 28 j 12:09	2°936'43	1°05'57	retrograde	-4004 May 29 j 20:19	8° る 45'30	
morning rise	-4010 Aug 10 j 09:05	5° © 25'51	1 03 37	min. Earth dist.	-4004 Jul 28 j 03:32	3°る49'58	4.01034 AU
retrograde	-4010 Dec 08 j 15:07	22° © 25'55		opposition	-4004 Jul 29 j 01:44	3°る49'38	-1°-38'-45
opposition	-4009 Feb 07 j 00:36		1°51'47	opposition	-4004 Aug 29 j 14:45		-1 -36-43
			4.39207 AU	direct			
min. Earth dist.	-4009 Feb 08 j 02:58		4.39207 AU	direct	-4004 Sep 25 j 06:08	28 x·4833	
direct	-4009 Apr 10 j 15:28	12° © 31'41 0° Ω			-4004 Oct 21 j 19:29		
	-4009 Aug 13 j 21:12			evening set	-4003 Jan 27 j 21:50	18-00/08	
evening set	-4009 Aug 15 j 18:44	0° Ω 24'59	(27241 ATT		4002 E-1 10 : 07.00	210717126	10 171 24
max. Earth dist.	-4009 Aug 26 j 17:36	2°8650'12	6.37241 AU	conjunction	-4003 Feb 10 j 07:09		
	4000 4 20:11.06	20 0 1 211 4	1000140	minimum elong	-4003 Feb 10 j 07:07		
conjunction	-4009 Aug 28 j 11:06			max. Earth dist.	-4003 Feb 12 j 01:02		6.01641 AU
minimum elong	-4009 Aug 28 j 11:05	3°Ω13'13	1°22'50	morning rise	-4003 Feb 23 j 19:50		
morning rise	-4009 Sep 10 j 00:47	6°Ω00'17			-4003 Mar 19 j 18:11		
	-4009 Oct 23 j 09:01			retrograde	-4003 Jul 05 j 10:57		404155 477
retrograde	-4008 Jan 09 j 09:04		2000126	min. Earth dist.	-4003 Sep 01 j 23:43		4.04157 AU
opposition	-4008 Mar 10 j 04:07	18° Ω 25'14	2°00'36	opposition	-4003 Sep 03 j 06:09	9°≈36'32	-2°-2'-49
min. Earth dist.	-4008 Mar 11 j 11:27	18° Ω 15'16	4.34193 AU	direct	-4003 Oct 31 j 06:39	4° ≈ 39'47	
	-4008 Apr 08 j 20:59	15°RΩ			-4002 Jan 24 j 21:31	15° ≈	
direct	-4008 May 11 j 15:54	13° Ω 25'39		evening set	-4002 Mar 05 j 23:28	23° ≈ 52′06	
	-4008 Jun 13 j 09:19	15° Ω					
	-4008 Sep 08 j 05:17	0° m)		conjunction	-4002 Mar 19 j 15:07		-1°-18'-47
evening set	-4008 Sep 14 j 20:38	1° Mp 28'52		minimum elong	-4002 Mar 19 j 15:09	27°≈02'30	1°18'54
max. Earth dist.	-4008 Sep 25 j 15:29	3° m 54'50	6.29800 AU	max. Earth dist.	-4002 Mar 21 j 13:17	27°≈29′21	6.07849 AU
					-4002 Apr 01 j 09:02	0° ∀	
conjunction	-4008 Sep 27 j 09:14	4°M) 18′27	1°16'11	morning rise	-4002 Apr 02 j 08:46	0°) 13'41	
minimum elong	-4008 Sep 27 j 09:16	4° Mp 18'29	1°16'16	retrograde	-4002 Aug 09 j 12:28	19°) 43′27	
morning rise	-4008 Oct 09 j 20:47	7° m 07'39		opposition	-4002 Oct 07 j 23:16	14°) 38′52	-1°-41'-8
retrograde	-4007 Feb 10 j 15:44	25° Mp 02'50		min. Earth dist.	-4002 Oct 06 j 21:34	14°) 47′38	4.12762 AU
opposition	-4007 Apr 12 j 16:49	20° Mp 10'15	1°34'10	direct	-4002 Dec 05 j 17:58	9°) 38′44	
min. Earth dist.	-4007 Apr 13 j 19:09	20° mg 01'52	4.24760 AU	evening set	-4001 Apr 11 j 10:33	28° ∺ 30′14	
direct	-4007 Jun 13 j 08:41	15° m 13'33			-4001 Apr 18 j 01:20	0 ° Υ	
	-4007 Sep 30 j 16:04	0∘ ⊽					
evening set	-4007 Oct 16 j 12:47	3° ჲ 35'31		conjunction	-4001 Apr 25 j 05:05	1° Ƴ 37′22	0°-51'-45
max. Earth dist.	-4007 Oct 27 j 23:35	6° ₽ 14'14	6.19226 AU	minimum elong	-4001 Apr 25 j 05:09	1° Ƴ 37′24	0°51'46
				max. Earth dist.	-4001 Apr 26 j 15:01	1° Y 56'37	6.18150 AU
conjunction	-4007 Oct 29 j 02:49	6° ≏ 30′01	0°46'26	morning rise	-4001 May 08 j 23:29	4° Ƴ 44'16	
minimum elong	-4007 Oct 29 j 02:53	6° ≏ 30'03	0°46'24	retrograde	-4001 Sep 11 j 14:29	23° Y 15'02	
morning rise	-4007 Nov 10 j 17:11	9° ≏ 24'57		min. Earth dist.	-4001 Nov 09 j 10:07	18° Ƴ 18'17	4.23661 AU
retrograde	-4006 Mar 17 j 18:41	28° ≏ 13'57		opposition	-4001 Nov 10 j 00:49	18° Ƴ 13'19	0°-46'-8
opposition	-4006 May 17 j 19:42	23° ≏ 18'36	0°36'18	direct	-4000 Jan 08 j 22:57	13° Y 10'42	
min. Earth dist.	-4006 May 18 j 08:19	23° ₽ 14'32	4.13708 AU		-4000 May 08 j 03:25	9° 8	
direct	-4006 Jul 17 j 05:14	18° ≏ 24'31		evening set	-4000 May 15 j 11:37	1° 8 36'34	
	-4006 Oct 17 j 21:26	0° M					

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -4000 in astronomical counting style is the year 4001 BCE in historical counting style. opposition -4000 May 29 j 03:22 4°**8**38'07 0°-8'-33 -3994 May 22 j 21:17 28° **2**13'31 0°26'22 conjunction min. Earth dist. -4000 May 29 j 03:22 4°**8**38'07 0°08'28 -3994 May 23 j 06:38 28° **2**10'31 4.12569 AU minimum elong -4000 May 28 j 20:09 4°834'08 -3994 Jul 22 j 02:31 23°**£**19'38 behind sun begin direct -4000 May 29 j 10:35 -3994 Sep 27 j 17:17 4°**8**42'06 behind sun end 0°M -4000 May 29 j 12:20 max. Earth dist. 4°**8**43'05 desc. node -3994 Oct 14 j 12:50 6.28866 AU 3°M14'06 -3994 Nov 23 j 08:55 12°M 07'17 -4000 Jun 11 j 17:14 7°**8**38'31 morning rise evening set -3994 Dec 05 j 13:19 15°M -4000 Jul 16 j 12:16 15°**8** 19°**8**34'44 asc. node -4000 Aug 10 j 13:42 25°**8**17'04 retrograde -4000 Oct 12 j 06:07 conjunction -3994 Dec 06 j 04:55 15°ML09'14 0°-6'-34 opposition -4000 Dec 10 j 20:15 20°8 19'16 0°20'37 minimum elong -3994 Dec 06 j 04:54 15°M09'13 0°06'43 min. Earth dist. -4000 Dec 10 j 22:21 20°**8**18'34 4.33252 AU behind sun begin -3994 Dec 05 j 21:20 15°M 04'46 -3999 Feb 10 j 02:12 15°**8**15'31 -3994 Dec 06 j 12:27 15°Ml 13'40 direct behind sun end -3994 Dec 06 j 04:20 15°ML08'53 -3999 Jun 02 j 08:09 Π °0 max. Earth dist. 6.07878 AU evening set -3999 Jun 17 j 21:45 3°**Ⅱ**20′36 morning rise -3994 Dec 19 j 03:02 18°M 12'32 -3993 Feb 11 j 12:20 0°**∡**¹ conjunction -3999 Jul 01 j 06:06 6°II15'52 0°36'03 retrograde -3993 Apr 28 j 16:14 8°**х**¹00'33 minimum elong -3999 Jul 01 j 06:03 6°**Ⅱ**15'51 0°36'12 opposition -3993 Jun 28 j 08:39 3°**х** 00′45 0°-47'00 max. Earth dist. -3999 Jun 30 j 15:20 6°**Ⅱ**07'46 6.36619 AU min. Earth dist. -3993 Jun 28 j 00:21 3°**∡**03'29 4.04172 AU morning rise -3999 Jul 14 j 11:07 9°**Ⅱ**09'29 -3993 Jul 23 j 02:12 30°RML 28°ML07'45 retrograde -3999 Nov 12 j 01:40 26°**Ⅲ**16'39 direct -3993 Aug 26 j 07:37 opposition -3998 Jan 11 j 01:49 21°**Ⅲ**22'25 1°19'13 -3993 Sep 29 j 03:04 0°**∡**7 min. Earth dist. -3998 Jan 11 j 18:14 21°**I**I17'04 4.38730 AU evening set -3993 Dec 28 i 10:30 17° ₹16'16 direct -3998 Mar 14 i 06:11 16°**I**I19'04 -3998 Jun 30 i 04:38 0ಂತಾ conjunction -3992 Jan 10 j 13:24 20° ₹ 23'54 0°-52'-40 -3992 Jan 10 j 13:21 20° **₹**23'51 evening set -3998 Jul 19 j 23:13 4°9513'22 minimum elong 0°52'50 max. Earth dist. -3992 Jan 11 j 13:45 20° **₹** 38'25 6.01862 AU -3998 Aug 01 j 22:06 7°**©**03'36 1°09'26 -3992 Jan 23 j 19:43 23° ₹33'20 conjunction morning rise -3998 Aug 01 j 22:03 1°09'37 -3992 Feb 20 j 19:52 0°る minimum elong 7°9603'35 -3998 Jul 31 j 12:17 -3992 Jun 03 j 21:39 13°る50'41 max. Earth dist. 6°9୍ଦ45'01 6.39323 AU retrograde -3998 Aug 14 j 17:48 -3992 Aug 02 j 02:36 8°る55'29 4.01313 AU morning rise 9°952'17 min. Earth dist. -3998 Dec 13 j 02:40 26°553'47 -3992 Aug 03 j 03:03 8°**る**47'16 -1°-44'-41 retrograde opposition -3997 Feb 11 j 12:28 22°501'51 1°55'04 -3992 Sep 30 j 05:08 3°₹53'00 direct opposition -3997 Feb 12 j 16:31 21°552'52 4.38647 AU -3991 Feb 02 j 00:03 23°る10'57 min. Earth dist. evening set -3997 Apr 15 j 04:19 17°500'08 direct -3991 Feb 15 j 10:20 26°る21'30 -1°-19'-35 -3997 Jul 28 j 08:21 0 $^{\circ}\Omega$ conjunction -3991 Feb 15 j 10:18 26°**정**21'29 1°19'46 evening set -3997 Aug 20 j 04:40 4°**Ω**54'48 minimum elong 7°**Ω**19'18 -3991 Feb 17 j 05:27 26°정47'03 6.02289 AU max. Earth dist. -3997 Aug 31 j 01:29 6.36334 AU max. Earth dist. morning rise -3991 Feb 28 j 23:42 29°중33'35 conjunction -3997 Sep 01 j 20:15 7°**Ω**43'05 1°23'14 -3991 Mar 02 j 20:45 minimum elong -3997 Sep 01 j 20:15 7°**Ω**43'04 1°23'22 -3991 May 15 j 08:43 15°≈ morning rise -3997 Sep 14 j 09:26 10°**Ω**30'16 retrograde -3991 Jul 10 j 09:56 19°≈41'21 -3997 Oct 05 j 03:10 15°**Ω** -3991 Sep 05 j 05:02 15°R≈ -3996 Jan 14 j 00:16 27° **Ω**51'14 min. Earth dist. -3991 Sep 06 j 21:51 14°≈46'06 4.05103 AU retrograde -3996 Mar 14 j 20:32 22° **Ω**59'43 1°58'59 -3991 Sep 08 j 03:02 14°≈36'09 opposition opposition -2°-2'-25 -3996 Mar 16 j 02:57 22° Ω 50'02 4.33025 AU -3991 Nov 05 j 06:15 9°**≈**38'54 min. Earth dist. direct -3996 May 16 j 05:42 $18^{\circ}\Omega$ 00'31 -3990 Jan 03 i 05:59 15°≈ direct -3996 Aug 22 j 07:17 0°m evening set -3990 Mar 11 i 01:05 28°≈49'09 -3990 Mar 16 i 03:40 evening set -3996 Sep 19 i 07:37 6° m 05'57 0°**)**€ max. Earth dist. -3996 Sep 30 i 05:36 8° m 34'07 6.28488 AU -3990 Mar 24 j 17:28 1° **€** 59'19 -1°-16'-32 conjunction minimum elong -3996 Oct 01 i 20:13 8° m 56'02 1°13'16 -3990 Mar 24 i 17:31 1°¥59'21 1°16'39 conjunction -3996 Oct 01 j 20:15 8° m 56'03 1°13'20 -3990 Mar 26 j 15:12 2°**升**25′50 6.09013 AU minimum elong max. Earth dist. -3996 Oct 14 j 07:41 11° mp 45'46 -3990 Apr 07 j 11:31 5°**)** 10′10 morning rise morning rise retrograde -3995 Feb 15 j 12:43 29° mp 47'28 retrograde -3990 Aug 14 j 04:45 24° ₩ 32'51 opposition -3995 Apr 17 j 14:21 24° m 54'35 1°27'37 opposition -3990 Oct 12 j 14:59 19°¥28'36 -1°-35'-5 -3995 Apr 18 j 15:11 24° Mp 46'41 min. Earth dist. 4.23391 AU min. Earth dist. -3990 Oct 11 j 14:03 19° ¥ 37'06 4.14030 AU direct -3995 Jun 18 j 03:12 19° Mp 58'20 direct -3990 Dec 10 j 11:43 14° **★**28'07 $0^{\circ}\Upsilon$ -3995 Sep 12 j 20:30 -3989 Apr 01 j 14:38 0∘**⊽** -3995 Oct 21 j 03:09 8°**≏**22'38 -3989 Apr 16 j 09:01 3°Y16'59 evening set evening set 6°**Υ**23'34 0°-46'-24 -3989 Apr 30 j 03:25 conjunction -3995 Nov 02 j 17:30 11°**△**17'51 0°40'38 conjunction minimum elong -3995 Nov 02 j 17:33 11°**⊆**17'53 0°40'37 minimum elong -3989 Apr 30 j 03:29 6°**Y**23'36 0°46'25 max. Earth dist. -3995 Nov 01 j 16:02 11°**♀**03'03 6.17926 AU max. Earth dist. -3989 May 01 j 08:50 6°**Y**40′13 6.19431 AU morning rise -3995 Nov 15 j 08:45 14°**£**13'42 morning rise -3989 May 13 j 21:42 9°**Y**29′50 -3994 Feb 04 j 15:55 0°M retrograde $-3989 \text{ Sep } 16 \text{ j } 03:01 \quad 27^{\circ} \Upsilon 53'47$ -3994 Mar 22 j 19:30 3°M09'28 -3989 Nov 14 j 12:37 22°**Y**52'35 retrograde opposition

min. Earth dist.

-3989 Nov 14 j 00:51 22°**Υ**56'34 4.24835 AU

-3994 May 08 j 19:10 30°R **≏**

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -3988 in astronomical counting style is the year 3989 BCE in historical counting style. -3988 Jan 13 j 15:27 17°**Y**49'44 direct min. Earth dist. -3983 Apr 23 j 09:14 29° m 29'30 4.22006 AU -3983 Jun 22 j 19:17 24° **m** 40'46 -3988 Apr 21 j 02:20 0°8 direct -3988 May 20 j 05:43 6°813'27 -3983 Aug 22 j 15:05 0∘⊽ evening set -3983 Oct 25 j 16:19 13°**♀**07'45 evening set 9°**8**14'18 0°-2'-6 -3983 Nov 06 j 09:45 15°**£**51'15 conjunction -3988 Jun 02 j 20:53 max. Earth dist. 6.16514 AU -3988 Jun 02 j 20:54 minimum elong 9°**8**14'19 0°02'01 -3988 Jun 02 j 12:37 9°809'45 -3983 Nov 07 j 07:22 16° **2**03'50 0°34'37 behind sun begin conjunction 9°818'53 -3983 Nov 07 j 07:24 16°**£**03'52 behind sun end -3988 Jun 03 j 05:12 minimum elong 0°34'35 -3983 Nov 19 j 23:16 max. Earth dist. -3988 Jun 03 j 03:52 9°**8**18'09 6.29871 AU morning rise 19°**ഫ**00'38 morning rise -3988 Jun 16 j 09:40 12°**8**13'53 -3982 Jan 10 j 04:27 0°M asc. node -3988 Jun 20 j 16:56 13°**8**10'30 retrograde -3982 Mar 27 j 22:15 8° M 03'55-3982 May 27 j 22:19 -3988 Jun 29 j 02:55 15°**8** opposition 3°**™**07'31 0°16'15 retrograde -3988 Oct 16 j 14:04 29°**8**47'43 min. Earth dist. -3982 May 28 j 06:17 3°ML04'56 4.11219 AU opposition -3988 Dec 15 j 05:48 24°850'30 0°29'41 -3982 Jun 23 j 04:50 30°R<u>₽</u> min. Earth dist. -3988 Dec 15 j 09:04 24°**8**49'24 4.34032 AU direct -3982 Jul 27 j 00:06 28° **2**13'51 direct -3987 Feb 14 j 13:53 19°**8**46'47 desc. node -3982 Aug 24 j 06:46 29°**♀**30'51 -3987 May 15 j 17:39 $0^{\circ}II$ -3982 Aug 29 j 08:28 evening set -3987 Jun 22 j 11:54 7°**Ⅱ**50'40 -3982 Nov 19 j 06:52 15°M evening set -3982 Nov 28 j 03:54 17° ML04'38 conjunction -3987 Jul 05 j 18:51 10°**II**45'12 0°41'38 minimum elong -3987 Jul 05 j 18:48 10°**II**45'10 0°41'47 conjunction -3982 Dec 11 j 00:40 20° 11.07'28 0°-13'-29 max. Earth dist. -3987 Jul 05 j 00:22 10°**Д**35'04 6.37116 AU minimum elong -3982 Dec 11 j 00:39 20°ML07'27 0°13'38 morning rise -3987 Jul 18 j 22:43 13°**II**38'06 behind sun begin -3982 Dec 10 j 20:08 20°ML04'47 -3987 Oct 26 i 01:40 0ಂತಾ behind sun end -3982 Dec 11 i 05:10 20°ML10'07 -3987 Nov 16 j 11:38 0°5643'33 max. Earth dist. -3982 Dec 11 j 02:07 20°ML08'19 6.06708 AU retrograde -3987 Dec 07 j 18:46 30°RⅡ -3982 Dec 24 j 00:04 23°M11'48 morning rise opposition -3986 Jan 15 j 11:51 25°**II**49'45 1°25'53 -3981 Jan 22 j 19:25 0° **₹** -3986 Jan 16 j 06:46 25°**II**43'37 -3981 May 03 j 20:01 13° ₹ 05'52 min. Earth dist. 4.38931 AU retrograde -3986 Mar 18 j 19:24 20°**Ⅱ**46'36 -3981 Jul 03 j 11:55 8°**✗**05'30 direct 0°-56'-41 opposition -3986 Jun 12 j 05:52 0°€ -3981 Jul 03 j 00:23 8° ₹ 09'18 4.03311 AU min. Earth dist. -3986 Jul 24 j 09:53 -3981 Aug 31 j 05:58 evening set 8°9540'34 direct 3°**҂**12′26 -3986 Aug 04 j 20:57 11°511'17 -3980 Jan 02 j 11:33 22°**尽**23'36 max. Earth dist. 6.39190 AU evening set -3986 Aug 06 j 07:42 11°530'23 1°12'42 -3980 Jan 15 j 15:35 25°**x** 31'54 0°-57'-57 conjunction conjunction -3986 Aug 06 j 07:39 11°530'21 1°12'52 -3980 Jan 15 j 15:31 25°**⋌**31'52 0°58'08 minimum elong minimum elong -3986 Aug 19 j 02:11 14°518'38 -3980 Jan 16 j 19:19 25° **₹** 48'27 morning rise max. Earth dist. 6.01375 AU -3986 Nov 17 j 21:08 0°Ω-3980 Jan 28 j 22:53 28° **₹** 41'59 morning rise retrograde -3986 Dec 17 j 12:12 1°**Ω**21'29 -3980 Feb 03 j 11:12 0°る -3985 Jan 16 j 06:44 30°Rூ retrograde -3980 Jun 09 j 03:04 19°**⋜**01'11 -3985 Feb 16 j 00:32 26°529'40 1°57'40 min. Earth dist. -3980 Aug 07 j 05:05 14°**정**05'45 4.01257 AU opposition min. Earth dist. -3985 Feb 17 j 04:16 26°\$20'47 4.38206 AU opposition -3980 Aug 08 j 05:55 13°₹57'22 -1°-49'-56 -3985 Apr 19 j 15:26 21°528'17 -3980 Oct 05 j 07:44 9°る02'44 direct direct -3985 Jul 10 j 02:16 -3979 Feb 07 j 04:57 28°る21'26 $0^{\circ}\Omega$ evening set -3985 Aug 24 j 13:58 9°**£**23′37 -3979 Feb 14 j 04:11 evening set -3985 Sep 04 j 10:35 11°**Ω**48'20 max. Earth dist. 6.35600 AU -3979 Feb 20 i 16:18 conjunction 1°≈32'16 -1°-21'-2 conjunction $-3985 \text{ Sep } 06 \text{ i } 04:46 \quad 12^{\circ} \Omega 11'51 \quad 1^{\circ} 23'17$ minimum elong -3979 Feb 20 i 16:17 1°≈32'16 1°21'12 -3985 Sep $06 \text{ i } 04:46 \quad 12^{\circ} \Omega 11'51$ minimum elong 1°23'24 max. Earth dist. -3979 Feb 22 i 13:26 1°≈58'56 6.02654 AU morning rise morning rise -3985 Sep 18 i 17:20 $14^{\circ}\Omega$ 59'06 -3979 Mar 06 i 06:35 4°≈44'33 -3985 Sep 18 j 18:58 $15^{\circ}\Omega$ -3979 Apr 21 j 18:16 15°≈ -3985 Dec 09 j 14:38 retrograde -3979 Jul 15 j 11:13 24°≈48'44 0° m -3984 Jan 18 j 15:23 2° m/24'07 -3979 Sep 11 j 20:47 19°≈53'38 4.05865 AU retrograde min. Earth dist. -3984 Feb 28 j 04:30 30°RΩ -3979 Sep 13 j 02:26 19°≈43'31 -2°-1'-7 opposition -3979 Oct 29 j 13:10 15°R≈ opposition -3984 Mar 19 j 12:19 $27^{\circ}\Omega$ 32'32 $1^{\circ}56'38$ min. Earth dist. $-3984 \text{ Mar } 20 \text{ j } 19:11 \quad 27^{\circ} \Omega 22'44 \quad 4.32011 \text{ AU}$ direct -3979 Nov 10 j 06:02 14°≈45'50 direct -3984 May 20 j 20:37 22°**Ω**33'45 -3979 Nov 22 j 00:24 15°≈ -3984 Aug 03 j 06:56 -3978 Feb 27 j 00:48 0°)(0° m -3984 Sep 23 j 17:35 10° mp 40'52 -3978 Mar 16 j 06:15 3°**)** 54'38 evening set evening set -3984 Oct 04 j 15:34 13° Mp 09'30 max. Earth dist. 6.27261 AU -3978 Mar 29 j 23:07 7° **★**04'35 -1°-13'-40 conjunction -3984 Oct 06 j 06:06 13° m 31'25 1°09'56 -3978 Mar 29 j 23:10 7°**)**€04'37 conjunction minimum elong 1°13'44 minimum elong -3984 Oct 06 j 06:09 13° Mp 31'27 1°09'58 max. Earth dist. -3978 Mar 31 j 18:27 7°**∺**29'38 6.10102 AU morning rise -3984 Oct 18 j 17:55 16° m 21'48 morning rise -3978 Apr 12 j 17:41 10°**米** 15'07 -3984 Dec 26 j 12:32 0∘**⊽** retrograde -3978 Aug 18 j 23:47 29°**∺** 30'41 retrograde -3983 Feb 20 j 07:37 4°**£**29'56 min. Earth dist. -3978 Oct 16 j 10:12 24° **★**34'43 4.15334 AU -3983 Apr 19 j 09:34 30°R Mp -3978 Oct 17 j 09:36 24° **€**26'44 opposition -1°-28'-12

direct

-3978 Dec 15 j 10:13 19°**∺**25'51

-3983 Apr 22 j 10:46 29° Mp 36'40 1°20'31

opposition

-	-		_	` //	r 3978 BCE in historical		ige 30
7 ttention, astronom	-3977 Mar 14 j 06:53	0° Υ	in astronomical co	min. Earth dist.	-3972 Mar 25 j 06:18		4.31223 AU
evening set	-3977 Apr 21 j 10:41	8° Ƴ 11'45		mm. Darm dist.	-3972 Apr 08 j 12:37	•	1.51225710
evening set	3717 Apr 21 j 10.41	0 11143		direct	-3972 May 25 j 05:57		
conjunction	-3977 May 05 j 05:10	11° Ƴ 17'44	0°-40'-35	uncet	-3972 Jul 10 j 06:08	0° m)	
minimum elong	-3977 May 05 j 05:13	11° Y 17'46	0°40'35	evening set	-3972 Sep 27 j 23:23		
max. Earth dist.	-3977 May 06 j 09:44	11° Y 33'50	6.20904 AU	max. Earth dist.	-3972 Oct 08 j 22:37		6.26118 AU
morning rise	-3977 May 18 j 22:51	14° Υ 23'09	0.2000.110	man. Bartir dist.	5572 OCC 00 j 22.57	17 1925	0.20110110
	-3977 Aug 10 j 09:01	0°8		conjunction	-3972 Oct 10 j 11:55	17° m 55'59	1°06'16
retrograde	-3977 Sep 20 j 16:19	2° 8 39'10		minimum elong	-3972 Oct 10 j 11:58	17° Mp 56'00	1°06'18
	-3977 Oct 31 j 20:29	30° R Υ		morning rise	-3972 Oct 22 j 23:56		
opposition	-3977 Nov 19 j 02:45	-	0°-27'-36		-3972 Dec 05 j 01:51	0∘ ⊽	
min. Earth dist.	-3977 Nov 18 j 16:06		4.26361 AU	retrograde	-3971 Feb 25 j 00:54	9° Ω 01'34	
direct	-3976 Jan 18 j 09:22	22° Y 35'33		opposition	-3971 Apr 27 j 03:08	4° £ 08'00	1°13'11
	-3976 Apr 01 j 06:17	0°B		min. Earth dist.	-3971 Apr 28 j 01:47	4° ₽ 00'46	4.20551 AU
asc. node	-3976 Apr 29 j 17:31	5° 8 29'51			-3971 Jun 04 j 16:35	30°R, M⊅	
evening set	-3976 May 25 j 01:55			direct	-3971 Jun 27 j 09:03		
C	, ,				-3971 Jul 19 j 21:34	0∘ <u>⊽</u>	
conjunction	-3976 Jun 07 j 15:58	13° 8 55'20	0°04'33	evening set	-3971 Oct 30 j 02:02	17° £ 42'45	
minimum elong	-3976 Jun 07 j 15:58		0°04'40				
behind sun begin	-3976 Jun 07 j 07:54			conjunction	-3971 Nov 11 j 17:42	20° ₽ 39'49	0°28'35
behind sun end	-3976 Jun 08 j 00:02			minimum elong	-3971 Nov 11 j 17:44		0°28'33
max. Earth dist.	-3976 Jun 07 j 18:52		6.31357 AU	max. Earth dist.	-3971 Nov 10 j 20:54		6.14882 AU
man. Darut dist.	-3976 Jun 12 j 13:02		0.5150 / 110	morning rise	-3971 Nov 24 j 10:37		0.11002110
morning rise	-3976 Jun 21 j 03:46			morning rise	-3971 Dec 22 j 16:49	0°M	
8	-3976 Aug 27 j 21:18	0°II		retrograde	-3970 Apr 01 j 19:54		
retrograde	-3976 Oct 20 j 23:50	4° Ⅱ 21'15		opposition	-3970 Jun 01 j 19:29	7°M52'40	0°06'22
renograde	-3976 Dec 15 j 05:05	30°R₩		min. Earth dist.	-3970 Jun 02 j 00:41	7°M50'59	4.09544 AU
opposition	-3976 Dec 19 j 16:51	29° 8 24'29	0°38'37	desc. node	-3970 Jul 06 j 03:19	4°ML01'38	,
min. Earth dist.	-3976 Dec 19 j 22:28	29° 8 22'38	4.35388 AU	direct	-3970 Jul 31 j 15:04	2°M59'11	
direct	-3975 Feb 19 j 06:00				-3970 Nov 02 j 13:55		
	-3975 Apr 24 j 17:59	0°II		evening set	-3970 Dec 02 j 20:31		
evening set	-3975 Jun 27 j 01:44						
<i>8</i>				conjunction	-3970 Dec 15 j 18:23	24°M58'53	0°-20'-7
conjunction	-3975 Jul 10 j 07:27	15° Ⅱ 14'32	0°46'57	minimum elong	-3970 Dec 15 j 18:21		0°20'15
minimum elong	-3975 Jul 10 j 07:24		0°47'07	max. Earth dist.	-3970 Dec 15 j 23:18		6.05149 AU
max. Earth dist.	-3975 Jul 09 j 12:10		6.38243 AU	morning rise	-3970 Dec 28 j 18:52		
morning rise	-3975 Jul 23 j 09:41	18° Ⅱ 06'21		Č	-3969 Jan 05 j 23:45	0° ∡ ¹	
C	-3975 Sep 22 j 05:54	0ಂತ		retrograde	-3969 May 09 j 00:31	18° ∡ 06'20	
retrograde	-3975 Nov 20 j 17:22	5° © 08'03		opposition	-3969 Jul 08 j 13:21		-1°-5'-43
opposition	-3974 Jan 19 j 21:02	0°9514'34	1°31'54	min. Earth dist.	-3969 Jul 08 j 00:35		4.02023 AU
min. Earth dist.	-3974 Jan 20 j 16:29	0°908'16	4.39771 AU	direct	-3969 Sep 05 j 04:10	8° ∡ 12′20	
	-3974 Jan 21 j 18:03	30°RⅡ		evening set	-3968 Jan 07 j 11:54	27° ∡ °28′03	
direct	-3974 Mar 23 j 06:42	25° I I11'36			-3968 Jan 18 j 02:45	0°ರ	
	-3974 May 21 j 17:45	0ಂತ					
evening set	-3974 Jul 28 j 18:45	13°902'56		conjunction	-3968 Jan 20 j 17:08	0° る 37'17	-1°-2'-40
max. Earth dist.	-3974 Aug 09 j 01:52	15°531'31	6.39658 AU	minimum elong	-3968 Jan 20 j 17:04	0° る 37'15	1°02'52
				max. Earth dist.	-3968 Jan 22 j 00:18	0° る 55'54	6.00479 AU
conjunction	-3974 Aug 10 j 15:08	15° © 52'00	1°15'26	morning rise	-3968 Feb 03 j 01:40	3°₹48'18	
minimum elong	-3974 Aug 10 j 15:05	15° © 51'58	1°15'36	retrograde	-3968 Jun 14 j 08:16	24° る 10'42	
morning rise	-3974 Aug 23 j 08:34	18° © 39'36		min. Earth dist.	-3968 Aug 12 j 05:26	19° る 15'38	4.00890 AU
	-3974 Oct 19 j 13:27	$0^{\circ}\Omega$		opposition	-3968 Aug 13 j 08:13	19° පි 06'36	-1°-54'-14
retrograde	-3974 Dec 21 j 20:32	5° Ω 41'58		direct	-3968 Oct 10 j 07:38	14° ප 11'40	
opposition	-3973 Feb 20 j 10:10	0° £ 50′16	1°59'25		-3967 Jan 28 j 04:48	0° ≈	
min. Earth dist.	-3973 Feb 21 j 15:53	0° Ω 40'46	4.38268 AU	evening set	-3967 Feb 12 j 10:45	3° ≈ 32′26	
	-3973 Feb 27 j 00:08	30°R∽					
direct	-3973 Apr 24 j 03:04	25°5649'08		conjunction	-3967 Feb 25 j 23:02	6° ≈ 43'38	-1°-21'-46
	-3973 Jun 18 j 01:52	$0^{\circ}\Omega$		minimum elong	-3967 Feb 25 j 23:02	6° ≈ 43'38	1°21'56
evening set	-3973 Aug 28 j 19:33	13° Ω 43'27		max. Earth dist.	-3967 Feb 27 j 20:32	7° ≈ 10'30	6.02828 AU
	-3973 Sep 03 j 13:31			morning rise	-3967 Mar 11 j 14:21	9° ≈ 56'14	
max. Earth dist.	-3973 Sep 08 j 14:52	16° Ω 07'37	6.35230 AU		-3967 Apr 02 j 16:10	15° ≈	
				retrograde	-3967 Jul 20 j 11:50	29° ≈ 57'12	
conjunction	-3973 Sep 10 j 09:47	16° Ω 31'34	1°22'48	min. Earth dist.	-3967 Sep 16 j 20:08	25° ≈ 02'09	4.06554 AU
minimum elong	-3973 Sep 10 j 09:47	16° Ω 31'34	1°22'56	opposition	-3967 Sep 18 j 02:00	24° ≈ 51'56	-1°-58'-47
morning rise	-3973 Sep 22 j 21:50	19° Ω 18'45		direct	-3967 Nov 15 j 07:23	19° ≈ 53'45	
	-3973 Nov 14 j 05:55	0° m			-3966 Feb 08 j 06:41	0° ∀	
retrograde	-3972 Jan 23 j 00:48	6° Mp 46′55		evening set	-3966 Mar 21 j 12:02	9° ₩ 01'12	
opposition	-3972 Mar 24 j 00:19	1° m 55'10	1°53'38				

•	omena or Jupiter III		•	, , , , , , , , , , , , , , , , , , ,			ige 39
conjunction	nical year style is used: Tl -3966 Apr 04 j 05:42			max. Earth dist.	-3967 BCE in historical of		
minimum elong	-3966 Apr 04 j 05:45		1°10'14	max. Earth dist.	-3901 Sep 12 J 22.24	20 66 3033	0.34108 AU
U					20(1 0 14: 10.10	210 001125	1921155
max. Earth dist.	-3966 Apr 06 j 02:02		6.11257 AU	conjunction minimum elong	-3961 Sep 14 j 18:10		1°21'55
morning rise	-3966 Apr 18 j 00:23	13 π 21 03 0° Υ		morning rise	-3961 Sep 14 j 18:11		1°22'01
	-3966 Jun 30 j 05:47			morning rise	-3961 Sep 27 j 05:59		
retrograde	-3966 Aug 23 j 19:23	4°Υ28'49		. 1	-3961 Oct 25 j 22:22	0° Т р	
: E 4 E 4	-3966 Oct 17 j 21:55	30° ₹ 29° 升 32'47	4.16701 ATT	retrograde	-3960 Jan 27 j 18:14		1040155
min. Earth dist.	-3966 Oct 21 j 06:04		4.16791 AU	opposition	-3960 Mar 28 j 17:32	6° Mp 30'44	1°49'55
opposition	-3966 Oct 22 j 04:24	29°) (25'11	-1°-20'-38	min. Earth dist.	-3960 Mar 30 j 00:08	6° Th 21'01	4.29802 AU
direct	-3966 Dec 20 j 08:39	24°) (23'56		direct	-3960 May 29 j 21:36	1° Mp 32'37	
. ,	-3965 Feb 20 j 08:32	0° γ		evening set	-3960 Oct 02 j 10:37	19° Mp 43'55	C 24471 ATT
evening set	-3965 Apr 26 j 12:09	13° Y 06′02		max. Earth dist.	-3960 Oct 13 j 11:30	22° Mp 15'08	6.24471 AU
i	2005 M 10 : 00-12	16° Ƴ 11'11	0°-34'-28	· · · · · · · · · · · · ·	-3960 Oct 14 j 23:27	220 m. 25142	1°02'03
conjunction	-3965 May 10 j 06:13	16° Υ 11'13	0°34'26	conjunction minimum elong	-3960 Oct 14 j 23:27	22° m 35'43 22° m 35'45	1°02'05
minimum elong max. Earth dist.	-3965 May 10 j 06:16	16° Υ 25'15	6.22513 AU	morning rise	3		1 02 03
	-3965 May 11 j 07:16	10° Y 15'42	0.22313 AU	morning rise	-3960 Oct 27 j 11:54		
morning rise	-3965 May 23 j 23:31			. 1	-3960 Nov 16 j 19:34	0° ⊽	
. 1	-3965 Jul 14 j 23:13	0°8		retrograde	-3959 Mar 01 j 23:13	13° £ 50'18	1004156
retrograde	-3965 Sep 25 j 04:29	7° 8 23'26	00.151.56	opposition	-3959 May 02 j 02:09	8° £ 56'21	1°04'56
opposition	-3965 Nov 23 j 16:33	2° 8 23'14	0°-17'-56	min. Earth dist.	-3959 May 02 j 22:03	8° £ 50'00	4.18793 AU
min. Earth dist.	-3965 Nov 23 j 07:49	2° 8 26'10	4.27939 AU	direct	-3959 Jul 02 j 02:15	4° £ 01'07	
	-3965 Dec 12 j 06:24			evening set	-3959 Nov 03 j 18:31	22° £ 35'36	
direct	-3964 Jan 23 j 04:04						
	-3964 Mar 05 j 13:28	0°8		conjunction	-3959 Nov 16 j 10:55		0°22'00
asc. node	-3964 Mar 08 j 04:59	0° 8 19'19		minimum elong	-3959 Nov 16 j 10:57		0°21'55
	-3964 May 27 j 03:05	15° 8		max. Earth dist.	-3959 Nov 15 j 17:37		6.13187 AU
evening set	-3964 May 29 j 21:05	15° 8 36'03		morning rise	-3959 Nov 29 j 04:47		
					-3959 Dec 05 j 11:08	0°M₊	
conjunction	-3964 Jun 12 j 10:14		0°11'04		-3958 Feb 22 j 03:14		
minimum elong	-3964 Jun 12 j 10:13		0°11'11	retrograde	-3958 Apr 07 j 02:47	17°M53'13	
behind sun begin	-3964 Jun 12 j 04:12			desc. node	-3958 May 15 j 05:27	15°M42'34	
behind sun end	-3964 Jun 12 j 16:14	18° 8 38'10			-3958 May 21 j 13:02	15°RM	
max. Earth dist.	-3964 Jun 12 j 10:58		6.32767 AU	opposition	-3958 Jun 07 j 00:01	12°M55'48	0°-4'-13
morning rise	-3964 Jun 25 j 20:37	21° 8 32'15		min. Earth dist.	-3958 Jun 07 j 03:11	12°M54'46	4.08054 AU
	-3964 Aug 05 j 14:55	Π $^{\circ}0$		direct	-3958 Aug 05 j 15:41	8°M02'30	
retrograde	-3964 Oct 25 j 08:34	8° Ⅱ 53'50			-3958 Oct 13 j 06:15	15°M	
opposition	-3964 Dec 24 j 03:22	3° Ⅱ 57'37	0°47'21	evening set	-3958 Dec 07 j 19:57	27°M02'03	
min. Earth dist.	-3964 Dec 24 j 10:54	3° Ⅱ 55′08	4.36507 AU				
	-3963 Jan 27 j 23:29	30° ₹ 8		conjunction	-3958 Dec 20 j 18:52	0° ∡ ¹06'59	0°-27'00
direct	-3963 Feb 23 j 20:35	28° 8 53'56		minimum elong	-3958 Dec 20 j 18:50	0° ∡ ¹06'58	0°27'09
	-3963 Mar 23 j 01:03	Π $^{\circ}0$			-3958 Dec 20 j 07:09	0° ∡ ¹	
evening set	-3963 Jul 01 j 15:21	16° Ⅱ 51'36		max. Earth dist.	-3958 Dec 21 j 04:13	0° ∡ 12'33	6.04030 AU
				morning rise	-3957 Jan 02 j 20:33	3° ∡ 13'32	
conjunction	-3963 Jul 14 j 19:34	19° ∐ 44'14	0°52'03	retrograde	-3957 May 14 j 08:35	23° х 20'41	
minimum elong	-3963 Jul 14 j 19:31	19° ∐ 44'12	0°52'13	opposition	-3957 Jul 13 j 19:53	18° ∡ 19′20	-1°-14'-43
max. Earth dist.	-3963 Jul 13 j 19:49	19° Ⅱ 31'14	6.38953 AU	min. Earth dist.	-3957 Jul 13 j 03:58	18° ∡ ¹24'37	4.01448 AU
morning rise	-3963 Jul 27 j 20:35	22° Ⅲ 35′14		direct	-3957 Sep 10 j 06:45	13° ∡ ¹26′07	
	-3963 Sep 01 j 11:00	0ಂತಾ			-3956 Jan 01 j 03:31	ರ°0	
retrograde	-3963 Nov 25 j 02:24	9° 5 34'56		evening set	-3956 Jan 12 j 17:19	2° る 43'27	
opposition	-3962 Jan 24 j 07:19	4°5541'48	1°37'35				
min. Earth dist.	-3962 Jan 25 j 05:13	4° © 34'43	4.40045 AU	conjunction	-3956 Jan 25 j 23:26	5°₹53'05	-1°-7'-8
	-3962 Mar 12 j 14:04	30°R∏		minimum elong	-3956 Jan 25 j 23:23	5° る 53'03	1°07'18
direct	-3962 Mar 27 j 19:48	29° ∏ 38'58		max. Earth dist.	-3956 Jan 27 j 09:03	6° ප 13'09	6.00485 AU
	-3962 Apr 12 j 02:56	0ಂತಾ		morning rise	-3956 Feb 08 j 09:04	9° ට 04'31	
evening set	-3962 Aug 02 j 04:26	17°529'39		retrograde	-3956 Jun 19 j 13:07	29° පි 25'44	
max. Earth dist.	-3962 Aug 13 j 10:00	19° © 57'29	6.39456 AU	min. Earth dist.	-3956 Aug 17 j 07:56		4.01503 AU
	e, 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			opposition	-3956 Aug 18 j 12:18	24° ට 21'14	-1°-57'-43
conjunction	-3962 Aug 14 j 23:52	20°9518'19	1°17'52	direct	-3956 Oct 15 j 11:54	19° පි 25'51	25
minimum elong	-3962 Aug 14 j 23:50	20°518'18	1°18'01	**** * * *	-3955 Jan 09 j 16:34	0°≈	
morning rise	-3962 Aug 27 j 16:07		• •	evening set	-3955 Feb 17 j 17:24	8°≈44'47	
	-3962 Sep 29 j 11:38	0°Ω				/	
retrograde	-3962 Dec 26 j 06:20	10° Ω 09'54		conjunction	-3955 Mar 03 j 06:42	11°2255'52	-1°-21'-56
	-		2°00'42	minimum elong	-3955 Mar 03 j 06:43		1°22'05
•	-3961 Feb 24 i 22:38	5°4718'19					
opposition	-3961 Feb 24 j 22:38	5° Ω 18'19 5° Ω 08'49		_			6 03983 ATT
opposition min. Earth dist.	-3961 Feb 26 j 04:25	5° Ω 08'49	4.37616 AU	max. Earth dist.	-3955 Mar 05 j 06:45	12° ≈ 24′08	6.03983 AU
opposition	-3961 Feb 26 j 04:25 -3961 Apr 28 j 14:26	5° Ω 08'49 0° Ω 17'31		_	-3955 Mar 05 j 06:45 -3955 Mar 16 j 22:30	12°≈24'08 15°≈08'08	6.03983 AU
opposition min. Earth dist.	-3961 Feb 26 j 04:25	5° Ω 08'49 0° Ω 17'31 15° Ω		max. Earth dist.	-3955 Mar 05 j 06:45	12° ≈ 24′08	6.03983 AU

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -3955 in astronomical counting style is the year 3956 BCE in historical counting style. -3955 Jul 25 j 11:23 5°**)**(01'44 max. Earth dist. -3949 Sep 17 j 09:16 $25^{\circ}\Omega$ 09'24 retrograde 6.32671 AU -3955 Sep 21 j 19:07 min. Earth dist. 0°\06'27 4.08115 AU -3955 Sep 22 j 14:01 30°R≈ -3949 Sep 19 j 03:29 $25^{\circ}\Omega$ 33'07 $1^{\circ}20'29$ conjunction -3949 Sep 19 j 03:30 25°**Q**33'08 1°20'35 -3955 Sep 23 j 00:11 29°≈56'31 -1°-55'-36 minimum elong opposition -3949 Oct 01 j 15:00 $28^{\circ}\Omega$ 21'08 direct -3955 Nov 20 j 08:15 24°≈57'52 morning rise -3949 Oct 09 j 00:58 -3954 Jan 16 j 18:52 0°**∀** 0° m -3948 Feb 01 j 12:09 evening set -3954 Mar 26 j 15:28 14°**米**00′50 retrograde 16° Mp 01'54 1°45'27 opposition -3948 Apr 02 j 12:32 11° Mp 09'54 conjunction -3954 Apr 09 j 09:17 17°**米** 09'53 -1°-6'-17 min. Earth dist. -3948 Apr 03 j 17:26 11° M 00'43 4.28088 AU minimum elong -3954 Apr 09 j 09:21 17°**米**09'55 1°06'20 direct -3948 Jun 03 j 12:09 6° Mp 12'18 max. Earth dist. -3954 Apr 11 j 02:50 17°**米** 33'44 6.13068 AU evening set -3948 Oct 06 j 23:39 24° m 27'31 -3954 Apr 23 j 04:10 20°**升** 19'13 -3948 Oct 18 j 02:46 27° m 00'40 morning rise max. Earth dist. 6.22691 AU -3954 Jun 07 j 06:37 $0^{\circ}\Upsilon$ retrograde -3954 Aug 28 j 08:55 9°Υ17'12 conjunction -3948 Oct 19 j 12:40 27° m 20'10 0°57'21 opposition -3954 Oct 26 j 19:29 4°**Υ**13'56 -1°-12'-45 minimum elong -3948 Oct 19 j 12:43 27° m 20'12 0°57'22 min. Earth dist. -3954 Oct 25 j 22:24 4°**Υ**21'06 4.18660 AU -3948 Oct 31 j 02:58 0∘<u>ଫ</u> -3954 Dec 03 j 05:17 30°R € morning rise -3948 Nov 01 j 01:46 0°**£**13'02 direct -3954 Dec 25 j 03:59 29°**升** 12'17 retrograde -3947 Mar 07 j 02:10 18°**2**44'25 -3953 Jan 16 j 09:47 $0^{\circ}\Upsilon$ opposition -3947 May 07 j 03:36 13°**£**50'04 0°56'04 evening set -3953 May 01 j 09:29 17°**Υ**49'35 min. Earth dist. -3947 May 07 j 21:34 13°**2**44'18 4.17068 AU direct -3947 Jul 06 j 23:30 8°**£**55'12 conjunction $-3953 \text{ May } 15 \text{ j } 03:11 \quad 20^{\circ} \Upsilon 53'49 \quad 0^{\circ} -28' -20$ evening set -3947 Nov 08 j 12:59 27°**2**33'31 minimum elong $-3953 \text{ May } 15 \text{ j } 03:14 \quad 20^{\circ} \mathbf{Y}^{53'50} \quad 0^{\circ} 28'18$ -3947 Nov 18 j 22:48 0°M max. Earth dist. $-3953 \text{ May } 16 \text{ j } 00:50 \quad 21^{\circ} \Upsilon 05'55$ 6.24304 AU morning rise -3953 May 28 j 19:40 23°**Y**57'14 -3947 Nov 21 i 06:17 0°M32'39 0°15'08 conjunction -3953 Jun 25 j 20:23 -3947 Nov 21 j 06:18 0°M32'39 0°15'03 0° 8 minimum elong -3953 Sep 29 j 14:27 11°856'45 -3947 Nov 21 j 03:09 0°M30'49 retrograde behind sun begin -3953 Nov 28 j 02:31 -3947 Nov 21 j 09:28 6°**8**57'09 0°-8'-31 behind sun end 0°M,34'30 opposition min. Earth dist. -3953 Nov 27 j 20:48 6°**8**59'04 4.29484 AU max. Earth dist. -3947 Nov 20 j 17:34 0°M25'10 6.11690 AU -3952 Jan 17 j 07:45 2°**8**04'13 -3947 Dec 04 j 01:07 asc. node morning rise 3°M32'49 -3952 Jan 27 j 19:20 -3946 Jan 26 j 02:22 15°M 1°**8**53'46 direct -3946 Mar 23 j 23:27 22°M25'26 -3952 May 10 j 14:03 15°**8** desc. node -3952 Jun 03 j 12:15 20°**8**06'23 -3946 Apr 12 j 08:40 23°M 00'40 evening set retrograde -3946 Jun 12 j 05:32 18°M02'43 0°-14'-56 opposition -3952 Jun 17 j 00:16 23°**8**04'18 0°17'18 -3946 Jun 12 j 05:18 18°ML02'48 4.06934 AU conjunction min. Earth dist. -3952 Jun 17 j 00:15 23°**8**04'17 0°17'26 minimum elong -3946 Jul 07 j 12:03 15°RM -3952 Jun 16 j 20:10 23°**8**02'03 6.33932 AU max. Earth dist. direct -3946 Aug 10 j 16:05 13°M 09'37 morning rise -3952 Jun 30 j 09:33 26°**8**00'43 -3946 Sep 13 j 11:04 15°M -3952 Jul 18 j 22:54 0°**Ⅱ** -3946 Dec 03 j 12:42 0°⊀ retrograde -3952 Oct 29 j 14:53 13°**I**I17'57 evening set -3946 Dec 12 j 20:32 2°×111'40 -3952 Dec 28 j 11:12 8°**Ц**22'13 0°55'33 opposition min. Earth dist. -3952 Dec 28 j 21:08 8°**Д**18'57 4.37236 AU -3946 Dec 25 j 20:17 5°**х** 17'17 0°-33'-44 conjunction -3951 Feb 28 j 07:26 3°**Ⅱ**18'32 -3946 Dec 25 j 20:15 5°**х**17'15 0°33'54 direct minimum elong -3951 Jul 06 j 01:59 21°**Ⅲ**15'06 -3946 Dec 26 j 09:01 5°**х¹**24'52 evening set max. Earth dist. 6.03358 AU -3951 Jul 18 j 03:09 23°**Ⅲ**52'57 6.39183 AU -3945 Jan 07 j 23:09 max. Earth dist. morning rise 8°**҂**24'37 retrograde -3945 May 19 j 15:34 28° ₹35'06 -3951 Jul 19 i 05:01 24°**I**I07'07 0°56'44 conjunction min. Earth dist. -3945 Jul 18 i 07:17 23° ₹39'21 4.01297 AU minimum elong -3951 Jul 19 i 04:58 24°**Ⅲ**07'05 0°56'53 opposition -3945 Jul 19 i 01:50 23° ₹33'10 -1°-23'-7 morning rise -3951 Aug 01 i 04:36 26° **1**57′29 direct -3945 Sep 15 i 10:47 18° ₹ 39'44 -3951 Aug 15 j 08:05 -3945 Dec 14 j 00:49 0°궁 0ംഉ -3951 Nov 29 j 09:55 13°557'06 -3944 Jan 17 j 21:50 7°**る**57'15 retrograde evening set -3950 Jan 28 j 16:11 opposition 9°904'21 1°42'38 min. Earth dist. 8°956'46 4.39787 AU -3944 Jan 31 j 05:05 11°**⋜**07'10 -1°-11'-2 -3950 Jan 29 j 15:47 conjunction direct -3950 Apr 01 j 05:45 4°9501'48 minimum elong -3944 Jan 31 j 05:02 11°**궁**07'08 1°11'12 -3950 Aug 06 j 13:20 21°553'39 max. Earth dist. -3944 Feb 01 j 19:02 11°**♂**29'46 6.00846 AU evening set max. Earth dist. -3950 Aug 17 j 14:42 24°519'35 6.38707 AU -3944 Feb 13 j 15:29 14°る18'45 morning rise -3944 Apr 29 j 23:46 0°≈ -3950 Aug 19 j 07:38 24°542'11 1°19'48 -3944 Jun 24 j 17:31 conjunction retrograde 4°**≈**37'23 -3950 Aug 19 j 07:36 24°5942'09 1°19'58 -3944 Aug 20 j 05:51 30°R♂ minimum elong -3950 Aug 31 j 23:12 27°529'24 -3944 Aug 22 j 10:03 29°정42'19 4.02353 AU morning rise min. Earth dist. -3950 Sep 12 j 12:13 $0^{\circ}\Omega$ opposition -3944 Aug 23 j 14:36 29°**⋜**32'38 -2°00'-14 $-3950 \text{ Dec } 30 \text{ j } 19:20 \quad 14^{\circ} \Omega 37'39$ direct -3944 Oct 20 j 14:33 24°る36'53 retrograde opposition -3949 Mar 01 j 11:38 9°**Ω**46'11 2°01'17 -3944 Dec 18 j 12:15 0°≈ min. Earth dist. -3949 Mar 02 j 18:36 9°**£**36′18 4.36445 AU evening set -3943 Feb 22 j 22:39 13°≈53'28 direct -3949 May 03 j 02:38 4°**Ω**45'43 -3943 Feb 27 j 16:31 15°≈ -3949 Aug 01 j 02:34 15°**Ω** -3949 Sep 06 j 14:06 22°**Ω**44'22 -3943 Mar 08 j 12:34 17°≈04'17 -1°-21'-30 evening set conjunction

•	omena of Jupiter fr		•	/ /			ige 41
	nical year style is used: Tl	-		inting style is the year			
minimum elong	-3943 Mar 08 j 12:35				-3937 Feb 28 j 09:33		2001112
max. Earth dist.	-3943 Mar 10 j 11:42		6.05219 AU	opposition	-3937 Mar 06 j 02:04		
morning rise	-3943 Mar 22 j 05:09			min. Earth dist.	-3937 Mar 07 j 09:02		4.35406 AU
	-3943 May 05 j 11:44	0° ∺		direct	-3937 May 07 j 15:33	9° Ω 16'43	
retrograde	-3943 Jul 30 j 06:39				-3937 Jul 11 j 11:24		
opposition	-3943 Sep 27 j 20:07	4°) €57'17		evening set	-3937 Sep 11 j 00:16		
min. Earth dist.	-3943 Sep 26 j 15:06		4.09615 AU	max. Earth dist.	-3937 Sep 21 j 18:42	29° 3 (42'38	6.31398 AU
	-3943 Nov 21 j 01:20						
direct	-3943 Nov 25 j 06:36			conjunction	-3937 Sep 23 j 13:11	0° Mp 06'35	
	-3943 Nov 29 j 12:14	0°) {		minimum elong	-3937 Sep 23 j 13:12		1°18'41
evening set	-3942 Mar 31 j 17:18	18° ¥ 57'18			-3937 Sep 23 j 01:31	0° m/y	
	2012 1 11:11 20	222)/25145	10.0100	morning rise	-3937 Oct 06 j 00:46	2° m 55'07	
conjunction	-3942 Apr 14 j 11:28	22° ₩ 05'45	-1°-2'00	retrograde	-3936 Feb 06 j 07:42	20° m/42'10	
minimum elong	-3942 Apr 14 j 11:32		1°02'03	opposition	-3936 Apr 07 j 08:14	15° m 49'55	1°40'19
max. Earth dist.	-3942 Apr 16 j 02:32		6.14726 AU	min. Earth dist.	-3936 Apr 08 j 11:52	15° Mp 41'07	4.26667 AU
morning rise	-3942 Apr 28 j 06:16			direct	-3936 Jun 08 j 04:37	10° Mp 52'42	
	-3942 May 19 j 16:26	0° Υ		evening set	-3936 Oct 11 j 12:30	29° m 10'34	
retrograde	-3942 Sep 02 j 00:19	14° Y 03'31			-3936 Oct 15 j 02:44	0∘ ⊽	
opposition	-3942 Oct 31 j 09:42	9° Y 00'43	-1°-4'-32	max. Earth dist.	-3936 Oct 22 j 20:00	1° ≏ 46'41	6.21277 AU
min. Earth dist.	-3942 Oct 30 j 15:29	9° Y 06'54	4.20295 AU			_	
direct	-3942 Dec 29 j 23:31	3° Y 58'44		conjunction	-3936 Oct 24 j 02:01		0°52'19
evening set	-3941 May 06 j 05:51	22° Υ '32'06		minimum elong	-3936 Oct 24 j 02:04	2° ≏ 04'01	0°52'18
				morning rise	-3936 Nov 05 j 15:32	4° £ 57'41	
conjunction	-3941 May 19 j 23:07		0°-22'-5	retrograde	-3935 Mar 12 j 02:25	23° ≏ 36'13	
minimum elong	-3941 May 19 j 23:09		0°22'02	opposition	-3935 May 12 j 04:12		0°46'54
max. Earth dist.	-3941 May 20 j 17:20		6.25801 AU	min. Earth dist.	-3935 May 12 j 19:29		4.15762 AU
morning rise	-3941 Jun 02 j 14:53			direct	-3935 Jul 11 j 19:35	13° ≏ 46'58	
	-3941 Jun 08 j 19:36	0°8			-3935 Nov 02 j 15:47	0°M	
	-3941 Sep 03 j 03:37			evening set	-3935 Nov 13 j 06:26	2°M27'37	
retrograde	-3941 Oct 03 j 22:54						
	-3941 Nov 03 j 14:46			conjunction	-3935 Nov 26 j 00:19	5°M27'30	0°08'18
asc. node	-3941 Nov 27 j 08:50			minimum elong	-3935 Nov 26 j 00:20	5° ™ 27'31	0°08'13
opposition	-3941 Dec 02 j 12:35		0°00'53	behind sun begin	-3935 Nov 25 j 17:11	5°M23'19	
min. Earth dist.	-3941 Dec 02 j 08:30		4.30732 AU	behind sun end	-3935 Nov 26 j 07:28	5°M31'42	
direct	-3940 Feb 01 j 08:35	6° 8 27'58		max. Earth dist.	-3935 Nov 25 j 14:17	5° ™ 21'36	6.10606 AU
	-3940 Apr 22 j 01:37			morning rise	-3935 Dec 08 j 20:15	8°M28'36	
evening set	-3940 Jun 08 j 03:30	24° 8 38'03			-3934 Jan 06 j 13:33	15° ™	
				desc. node	-3934 Jan 31 j 22:06		
conjunction	-3940 Jun 21 j 14:23		0°23'28	retrograde	-3934 Apr 17 j 12:14		
minimum elong	-3940 Jun 21 j 14:22		0°23'37	opposition	-3934 Jun 17 j 08:55		0°-25'-18
max. Earth dist.	-3940 Jun 21 j 06:33		6.34847 AU	min. Earth dist.	-3934 Jun 17 j 05:35		4.06162 AU
	-3940 Jul 02 j 14:18	$0^{\circ}\Pi$		direct	-3934 Aug 15 j 15:56	18° ™ 10'47	
morning rise	-3940 Jul 04 j 22:24	0° Ⅱ 30'39			-3934 Nov 16 j 03:41	0° ∡ ¹	
retrograde	-3940 Nov 02 j 23:38			evening set	-3934 Dec 17 j 18:50	7° ∡ 14'16	
opposition	-3939 Jan 01 j 20:02		1°03'30			_	
min. Earth dist.	-3939 Jan 02 j 08:47		4.37766 AU	conjunction	-3934 Dec 30 j 19:39	10° ∡ 20′29	0°-40'-1
direct	-3939 Mar 04 j 19:50	7° Ⅱ 45'30		minimum elong	-3934 Dec 30 j 19:36	10° ∡ 20′27	0°40'12
evening set	-3939 Jul 10 j 13:22			max. Earth dist.	-3934 Dec 31 j 13:24		6.02965 AU
max. Earth dist.	-3939 Jul 22 j 09:53	28° ⊥ 16'44	6.39268 AU	morning rise	-3933 Jan 12 j 23:22		
					-3933 Apr 05 j 05:21	0°る	
conjunction	-3939 Jul 23 j 15:07		1°01'08	retrograde	-3933 May 24 j 20:46	3° る 40'59	
minimum elong	-3939 Jul 23 j 15:04		1°01'17		-3933 Jul 13 j 21:26	30°₹ ⋌	
	-3939 Jul 30 j 06:22	0°©		min. Earth dist.	-3933 Jul 23 j 08:49		4.01346 AU
morning rise	-3939 Aug 05 j 13:33	1°522'35		opposition	-3933 Jul 24 j 04:27		-1°-30'-36
retrograde	-3939 Dec 03 j 19:02			direct	-3933 Sep 20 j 11:43		
opposition	-3938 Feb 02 j 02:37		1°47'10		-3933 Nov 23 j 06:52	0°る	
min. Earth dist.	-3938 Feb 03 j 03:24		4.39459 AU	evening set	-3932 Jan 22 j 23:51	13° 6 02'17	
direct	-3938 Apr 05 j 16:21	8°527'41			2022 5 1 2 2 2 2 2	1 20	10.4=
evening set	-3938 Aug 10 j 22:45	26°520'31	6.27001 : **	conjunction	-3932 Feb 05 j 07:51		-1°-14'-17
max. Earth dist.	-3938 Aug 21 j 23:50	28° © 46'35	6.37991 AU	minimum elong	-3932 Feb 05 j 07:48	16°る12'19	1°14'28
				max. Earth dist.	-3932 Feb 06 j 22:31	16° る 35'20	6.01291 AU
conjunction	-3938 Aug 23 j 16:14		1°21'20	morning rise	-3932 Feb 18 j 19:19	19° る 24'07	
minimum elong	-3938 Aug 23 j 16:13		1°21'29		-3932 Apr 06 j 16:08	0° ≈	
	-3938 Aug 27 j 12:30	0° Ω		retrograde	-3932 Jun 29 j 16:01	9° ≈ 39'43	
morning rise	-3938 Sep 05 j 06:51	1° Ω 56′05		min. Earth dist.	-3932 Aug 27 j 07:19	4°≈44'53	4.03170 AU
	-3938 Nov 12 j 03:12			opposition	-3932 Aug 28 j 13:00	4°≈34'48	-2°-1'-47
retrograde	-3937 Jan 04 j 08:28	19~8608'08			-3932 Oct 11 j 04:54	30°₹₹	

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -3932 in astronomical counting style is the year 3933 BCE in historical counting style. conjunction -3932 Oct 25 j 12:27 29°る38'36 -3926 Aug 28 j 00:42 3°Ω36'30 1°22'23 direct -3932 Nov 08 j 23:02 minimum elong -3926 Aug 28 j 00:41 3°Ω36'29 1°22'31 0°≈ 6°**£**23′34 -3931 Feb 11 i 02:04 15°≈ -3926 Sep 09 j 14:40 morning rise -3931 Feb 28 j 00:44 18°≈53'22 -3926 Oct 20 j 21:58 15°**Ω** evening set $-3925 \text{ Jan } 08 \text{ j } 21:17 \quad 23^{\circ} \Omega 38'54$ retrograde conjunction -3931 Mar 13 j 15:30 22°≈04'02 -1°-20'-29 opposition -3925 Mar 10 j 16:18 18°**Ω**47'24 2°00'22 -3931 Mar 13 j 15:32 22°≈04'03 minimum elong 1°20'36 min. Earth dist. -3925 Mar 11 j 22:47 18°**Ω**37'41 4.34530 AU max. Earth dist. -3931 Mar 15 j 14:03 22°≈31'14 6.06326 AU -3925 Apr 13 j 15:05 15°R€ morning rise -3931 Mar 27 j 08:32 25°≈15'43 direct -3925 May 12 j 03:52 13°**Ω**47'41 -3931 Apr 17 j 04:48 0°**)**€ -3925 Jun 09 j 17:51 15°**Ω** retrograde -3931 Aug 04 j 01:54 14°**)** 55'11 -3925 Sep 07 j 03:59 -3931 Oct 01 j 10:31 -3925 Sep 15 j 09:33 min. Earth dist. 9°**¥**59'31 4.10879 AU evening set 1° m/49'53 -3925 Sep 26 j 06:12 opposition -3931 Oct 02 j 13:23 9°**¥**50′20 -1°-47'-5 max. Earth dist. 4° Mp 16'38 6.30293 AU direct -3931 Nov 30 j 03:46 4°**)** 50'48 evening set -3930 Apr 05 j 16:37 23°**光**47'09 conjunction -3925 Sep 27 j 22:21 4°m/39'19 1°16'15 minimum elong -3925 Sep 27 j 22:23 4°m/39'21 1°16'20 conjunction -3930 Apr 19 j 11:05 26° ¥55'10 0°-57'-24 morning rise -3925 Oct 10 j 09:44 7° m 28'17 minimum elong -3930 Apr 19 j 11:09 26° ¥ 55'12 0°57'25 retrograde -3924 Feb 11 j 01:51 25° m 21'03 max. Earth dist. -3930 Apr 21 j 00:05 27° **升** 16'15 6.16057 AU opposition -3924 Apr 12 j 03:04 20° m 28'31 1°34'34 morning rise -3930 May 03 j 05:48 0°**Y**03′07 min. Earth dist. -3924 Apr 13 j 05:52 20° mp 19'59 4.25371 AU -3930 May 03 j 00:17 $0^{\circ}\Upsilon$ direct -3924 Jun 12 j 20:38 15° mp 31'43 retrograde -3930 Sep 06 i 12:09 18° Υ 44'58 -3924 Sep 28 i 21:21 0∘**⊽** opposition $-3930 \text{ Nov } 04 \text{ j } 21:59 \quad 13^{\circ} \Upsilon 42'41 \quad 0^{\circ} -56' -6$ evening set -3924 Oct 16 i 00:20 3°**£**51'52 min. Earth dist. $-3930 \text{ Nov } 04 \text{ i } 04:51 \quad 13^{\circ} \Upsilon 48'30$ 4.21577 AU max. Earth dist. -3924 Oct 27 j 08:55 6°**£**29'07 6.19887 AU direct -3929 Jan 03 j 14:31 8°**Y**40'27 evening set -3929 May 11 j 01:08 27°**Y**11'25 -3924 Oct 28 j 14:05 6°**£**46′00 0°46'58 conjunction -3929 May 23 j 16:25 -3924 Oct 28 j 14:08 6°**£**46'02 0°46'57 0°8 minimum elong -3924 Nov 10 j 04:26 9°**£**40'36 morning rise 0°814'07 0°-15'-46 -3923 Mar 17 j 01:11 28°**2**26'27 -3929 May 24 j 17:46 retrograde conjunction -3929 May 24 j 17:47 0°814'08 0°15'43 -3923 May 17 j 03:34 23°**£**31'06 0°37'27 minimum elong opposition -3929 May 24 j 17:18 -3923 May 17 j 16:16 23°**2**27'01 4.14360 AU behind sun begin 0°**8**13'52 min. Earth dist. -3929 May 24 j 18:16 -3923 Jul 16 j 14:37 18°**♀**36'51 0°**8**14'24 behind sun end direct max. Earth dist. -3929 May 25 j 07:19 -3923 Oct 16 j 09:51 0°**8**21'40 6.26955 AU 0°M -3929 Jun 07 j 08:49 3°**8**15'49 -3923 Nov 17 j 23:12 morning rise evening set 7°M20'33 -3929 Aug 04 j 17:02 15°**8** -3929 Oct 07 j 22:03 21°**8**02'51 -3923 Nov 30 j 18:05 10°M21'22 0°01'25 asc. node conjunction -3929 Oct 08 j 09:30 21°**8**02'52 -3923 Nov 30 j 18:06 10°M21'23 retrograde minimum elong 0°01'20 -3929 Dec 06 j 22:14 16°**8**04'24 0°10'10 behind sun begin -3923 Nov 30 j 10:01 10°M16'38 opposition min. Earth dist. -3929 Dec 06 j 21:19 16°**8**04'42 4.31672 AU behind sun end -3923 Dec 01 j 02:10 10°M26'07 -3929 Dec 15 j 00:58 15°R₩ max. Earth dist. -3923 Nov 30 j 12:35 10°M 18'09 6.09331 AU direct -3928 Feb 05 j 22:53 11°**8**00'47 desc. node -3923 Dec 11 j 21:22 12° \$\mathbb{N}\$_59'05 -3928 Mar 29 j 20:49 15°**8** -3923 Dec 13 j 14:53 13°M23'28 morning rise -3928 Jun 12 j 18:17 29°**8**09'21 -3923 Dec 20 j 12:19 15°M evening set -3928 Jun 16 j 15:02 -3922 Mar 08 j 10:05 $0^{\circ}\Pi$ 0°×7 -3922 Apr 22 j 17:22 retrograde 3°**х**¹03'54 conjunction -3928 Jun 26 j 04:10 2°**I**05'43 0°29'27 -3922 Jun 07 i 10:07 30°RML -3928 Jun 26 i 04:08 minimum elong 2°II05'42 0°29'36 opposition -3922 Jun 22 j 11:29 28° ML04'48 0°-35'-29 -3928 Jun 25 i 17:53 max. Earth dist. 2°**П**00'04 6.35506 AU min. Earth dist. -3922 Jun 22 j 06:39 28° ML06'23 4.05130 AU -3928 Jul 09 i 10:52 morning rise 5°**Ⅱ**00′28 direct -3922 Aug 20 i 15:09 23°M 11'45 retrograde -3928 Nov 07 j 06:52 22°**Ⅲ**11'34 -3922 Oct 26 j 23:39 0°**√** -3927 Jan 06 j 05:13 17°**II**16'47 1°11'03 -3922 Dec 22 j 17:52 12° ₹ 18'02 opposition evening set min. Earth dist. -3927 Jan 06 j 18:54 17°**Ⅲ**12'19 4.38136 AU direct -3927 Mar 09 j 06:10 12°**Ⅲ**13'19 -3921 Jan 04 j 19:34 15° ₹724'58 0°-46'-3 conjunction -3927 Jul 14 j 08:49 0.00 minimum elong -3921 Jan 04 j 19:30 15°**尽** 24'56 0°46'13 -3921 Jan 05 j 15:06 15°■36'38 evening set -3927 Jul 15 j 00:43 0°908'39 max. Earth dist. 6.02250 AU max. Earth dist. -3927 Jul 26 j 18:18 2°9542'37 6.39314 AU morning rise -3921 Jan 18 j 00:35 18° ₹33'41 -3921 Mar 10 j 23:39 0°궁 -3927 Jul 28 j 01:09 2°959'33 1°05'10 -3921 May 30 j 00:09 8°**る**49'29 conjunction retrograde -3927 Jul 28 j 01:06 1°05'21 -3921 Jul 28 j 09:08 3°る54'02 4.01046 AU minimum elong 2°959'31 min. Earth dist. -3927 Aug 09 j 22:20 -3921 Jul 29 j 07:19 3°₹46'36 -1°-37'-30 morning rise 5°9548'50 opposition -3921 Aug 30 j 16:01 retrograde -3927 Dec 08 j 05:30 22°549'14 30°Ŗ**⋌**7 -3926 Feb 06 j 13:36 17°557'01 1°51'05 direct -3921 Sep 25 j 11:21 28°**х** 52'40 opposition min. Earth dist. -3926 Feb 07 j 16:01 17°548'32 4.39192 AU -3921 Oct 21 j 07:01 0°ಕ direct -3926 Apr 10 j 04:54 12°954'58 evening set -3920 Jan 28 j 03:28 18°る11'20

-3926 Aug 11 j 16:09

-3926 Aug 15 j 08:09

-3926 Aug 26 j 06:55

evening set

max. Earth dist.

0 $^{\circ}\Omega$

0°**Ω**48'13

3°**Ω**13'20 6.37402 AU

conjunction

minimum elong

-3920 Feb 10 j 12:38 21°る21'48 -1°-17'00

-3920 Feb 10 j 12:35 21°₹21'46 1°17'11

Planetary Phenomena of Jupiter from -4400 through -3900 (UT), Astrodienst AG 7-Dez-2017 14:36, Attention, astronomical year style is used: The year -3920 in astronomical counting style is the year 3921 BCE in historical counting style. -3920 Feb 12j05:38 21°る46'10 6.01417 AU -3914 Jul 26 i 13:33 $0^{\circ}\Omega$ max. Earth dist. -3920 Feb 24 j 00:57 24°る33'53 -3914 Aug 19 j 14:45 5°**Ω**09'04 morning rise evening set -3920 Mar 18 j 15:18 -3914 Aug 30 j 12:16 max. Earth dist. 7°**Ω**33'37 6.37332 AU 0°≈≈ -3920 Jul 04 j 18:55 14°≈47'29 retrograde -3920 Sep 01 j 08:21 -3914 Sep 01 j 06:22 9°≈52'16 4.03701 AU min. Earth dist. conjunction 7°**Ω**56′59 1°22'53 -3920 Sep 02 j 13:22 -3914 Sep 01 j 06:21 opposition 9°**≈**42'23 -2°-2'-28 minimum elong 7°**Ω**56'59 1°23'01 4°≈45'42 -3914 Sep 13 j 19:33 direct -3920 Oct 30 j 14:43 morning rise 10°**Ω**43'48 -3914 Oct 03 j 12:48 -3919 Jan 23 j 14:54 15°≈ 15°**Ω** -3913 Jan 13 j 07:30 28°**ん**01'02 evening set -3919 Mar 05 j 05:49 23°≈59'37 retrograde opposition -3913 Mar 15 j 03:43 $23^{\circ}\Omega$ 09'33 1°58'46 -3919 Mar 18 j 21:26 27°≈10'16 -1°-18'-49 conjunction min. Earth dist. -3913 Mar 16 j 11:19 22° **Ω** 59'30 4.34057 AU -3919 Mar 18 j 21:29 27°≈10'17 -3913 May 16 j 15:14 18° **Ω**10'13 minimum elong 1°18'56 direct -3919 Mar 20 j 20:24 27°≈37'37 6.07216 AU -3913 Aug 22 j 00:14 max. Earth dist. 0°m -3919 Mar 31 j 01:25 0°**)**€ evening set -3913 Sep 19 j 15:06 6° m 12'37 morning rise -3919 Apr 01 j 15:04 0°\ 21'47 max. Earth dist. -3913 Sep 30 j 10:27 8°m/38'59 6.29446 AU retrograde -3919 Aug 08 j 22:17 19° ¥ 54'50 min. Earth dist. -3919 Oct 06 j 06:17 14°¥59'22 4.12040 AU conjunction -3913 Oct 02 j 03:38 9°m/02'18 1°13'30 opposition -3919 Oct 07 j 08:59 14° **€** 50'15 -1°-41'-38 minimum elong -3913 Oct 02 j 03:41 9° m 02'20 direct -3919 Dec 05 j 01:12 9°**¥**50′18 morning rise -3913 Oct 14 j 15:10 11° m 51'39 evening set -3918 Apr 10 j 19:26 28° ¥ 44'10 retrograde -3912 Feb 15 j 15:05 29° mp 49'39 -3918 Apr 16 j 09:23 opposition -3912 Apr 16 j 17:46 24° m 56'49 1°28'25 min. Earth dist. -3912 Apr 17 j 19:10 24° m 48'44 4.24184 AU conjunction -3918 Apr 24 i 13:56 1°**Υ**'51'40 0°-52'-15 direct -3912 Jun 17 j 07:38 20° m 00'21 minimum elong -3918 Apr 24 j 14:00 1°**Y**51'42 0°52'16 -3912 Sep 11 i 23:43 0∘**⊽** max. Earth dist. -3918 Apr 25 i 23:25 2°Υ10'42 6.17416 AU -3912 Oct 20 j 08:18 8°**£**22'54 evening set -3918 May 08 j 08:39 4°**Y**59′00 morning rise -3918 Sep 11 j 04:07 23° Y 33'08 -3912 Nov 01 j 22:38 11°**2**17'51 retrograde conjunction 0°41'32 -3918 Nov 09 j 13:19 18°**Υ**'31'20 0°-47'-3 -3912 Nov 01 j 22:41 11°**£**17'53 0°41'30 opposition minimum elong -3918 Nov 08 j 22:33 18°**Υ**36'20 4.23009 AU max. Earth dist. -3912 Oct 31 j 20:07 11° **2**02'28 6.18478 AU min. Earth dist. -3917 Jan 08 j 10:46 13°**Y**28'51 -3912 Nov 14 j 13:31 14°**£**13'21 direct morning rise -3917 May 07 j 02:21 -3911 Feb 04 j 01:23 0° 8 0°M -3911 Mar 21 j 22:20 -3917 May 15 j 22:48 1°856'29 retrograde 3°M06'53 evening set -3911 May 07 j 12:37 30°R **⊆** -3917 May 29 j 14:56 4°**8**58'22 0°-9'-14 -3911 May 21 j 23:00 28°**£**11'11 0°28'04 conjunction opposition -3917 May 29 j 14:56 4°**8**58'22 0°09'09 -3911 May 22 j 11:04 28°**♀**07'18 4.12812 AU minimum elong min. Earth dist. -3917 May 29 j 07:58 4°**8**54'31 -3911 Jul 21 j 06:27 23°**♀**17'11 behind sun begin direct -3917 May 29 j 21:55 -3911 Sep 27 j 02:29 behind sun end 5°**8**02'13 0°M. max. Earth dist. -3917 May 30 j 03:15 5°**8**05'12 6.28400 AU desc. node -3911 Oct 23 j 18:11 5°M18'45 morning rise -3917 Jun 12 j 04:54 7°**8**59'03 evening set -3911 Nov 22 j 12:56 12°ML05'01 -3917 Jul 15 j 05:56 15°**႘** -3911 Dec 04 j 20:55 15°M asc. node -3917 Aug 17 j 05:24 20°**8**54'51 -3917 Oct 12 j 19:07 25°839'21 -3911 Dec 05 j 08:37 15°ML06'55 0°-5'-19 retrograde conjunction -3917 Dec 11 j 10:00 20°841'27 0°19'33 -3911 Dec 05 j 08:36 15°ML06'54 opposition minimum elong 0°05'27 min. Earth dist. -3917 Dec 11 j 09:51 20°**8**41'30 4.33041 AU behind sun begin -3911 Dec 05 j 00:49 15°ML02'19 -3916 Feb 10 j 13:39 15°837'51 behind sun end -3911 Dec 05 j 16:24 15°M11'30 direct -3911 Dec 05 i 04:11 15°ML04'19 -3916 May 31 i 01:59 $\Pi^{\circ}0$ max. Earth dist. 6.07785 AU evening set -3916 Jun 17 j 10:21 3°**Ⅱ**43'01 morning rise -3911 Dec 18 i 06:42 18°ML10'13 -3910 Feb 10 i 20:06 0° **₹** -3916 Jun 30 j 18:45 conjunction 6°**I**38'19 0°35'18 retrograde -3910 Apr 27 j 18:10 7°**х** 58'42 -3916 Jun 30 i 18:42 6°**Ⅲ**38'18 0°35'27 opposition -3910 Jun 27 j 11:02 2°\$\square\$759'06 0°-45'-8 minimum elong max. Earth dist. -3916 Jun 30 j 04:57 6°**П**30'45 6.36711 AU min. Earth dist. -3910 Jun 27 j 03:14 3°**₹**01'40 4.03742 AU -3916 Jul 14 j 00:10 9°**Ⅲ**32′02 -3910 Jul 21 j 22:22 30°RM morning rise -3916 Nov 11 j 15:52 26°**Ⅲ**38'42 -3910 Aug 25 j 09:05 28°M 06'05 retrograde direct opposition -3915 Jan 10 j 15:06 21°**II**44'23 1°18'08 -3910 Sep 28 j 11:38 0°×7 min. Earth dist. -3915 Jan 11 j 07:16 21°**Ⅲ**39'07 4.39110 AU evening set -3910 Dec 27 j 15:07 17° ₹ 17'02 direct -3915 Mar 13 j 20:25 16°**Ⅲ**41'03 -3915 Jun 28 j 00:47 0ಂತಾ conjunction -3909 Jan 09 j 18:01 20°**х** 24'58 0°-51'-34 -3909 Jan 09 j 17:57 20°**х** 24'55 -3915 Jul 19 j 11:10 evening set 4°933'34 minimum elong 0°51'44 -3915 Jul 31 j 02:21 7°**5**06'07 -3909 Jan 10 j 17:12 20° **₹** 38'50 max. Earth dist. 6.39970 AU max. Earth dist. 6.01151 AU -3909 Jan 23 j 00:04 23°**尽** 34'39 morning rise -3915 Aug 01 j 10:22 7°**5**23'40 -3909 Feb 19 j 20:23 conjunction 1°08'47 0°る minimum elong -3915 Aug 01 j 10:19 7°**5**23'39 1°08'57 retrograde -3909 Jun 04 j 04:55 13°る55'21 morning rise -3915 Aug 14 j 06:10 10°512'10 min. Earth dist. -3909 Aug 02 j 09:57 8°る59'46 4.00370 AU retrograde -3915 Dec 12 j 11:50 27°511'10 opposition -3909 Aug 03 j 08:50 8°**る**52'04 -1°-43'-30 opposition -3914 Feb 10 j 23:08 22°519'07 1°54'12 direct -3909 Sep 30 j 11:16 3°**る**57'53 min. Earth dist. -3914 Feb 12 j 01:38 22°510'37 4.39504 AU -3908 Feb 02 j 07:07 23°る19'35 evening set

-3914 Apr 14 j 14:39 17°5017'21

direct

Planetary Pheno	omena of Jupiter fro	om -4400 t	hrough -3900 (UT), Astrodienst	AG 7-Dez-2017 14	4:36, pa	ıge 44
Attention, astronom	nical year style is used: Tl	he year -3908	in astronomical cou	unting style is the year	3909 BCE in historical	counting style.	
conjunction	-3908 Feb 15 j 17:23	26° る 30'38	-1°-19'-2	conjunction	-3903 Aug 05 j 19:25	11° © 49'13	1°12'05
minimum elong	-3908 Feb 15 j 17:22	26° ප 30'37	1°19'12	minimum elong	-3903 Aug 05 j 19:23	11° 5 549'12	1°12'15
max. Earth dist.	-3908 Feb 17 j 13:00	26° ප 56'31	6.01223 AU	morning rise	-3903 Aug 18 j 14:10	14° © 37'12	
morning rise	-3908 Feb 29 j 06:47				-3903 Nov 14 j 11:48	$0^{\circ}\Omega$	
	-3908 Mar 01 j 11:17	0° ≈		retrograde	-3903 Dec 16 j 22:19	1° Ω 36'51	
	-3908 May 13 j 08:07	15° ≈			-3902 Jan 18 j 11:54	30°Rூ	
retrograde	-3908 Jul 09 j 21:07	19° ≈ 55'38		opposition	-3902 Feb 15 j 10:27	26°9544'59	1°56'53
min. Earth dist.	-3908 Sep 06 j 06:58	15°≈00'45	4.04036 AU	min. Earth dist.	-	26°535'46	4.39154 AU
mm. Eurin dist.	-3908 Sep 06 j 09:12		1.01030710	direct	-3902 Apr 19 j 03:46		1.57151110
opposition	-3908 Sep 07 j 13:12	14°≈50'27	_2°_2'_7	direct	-3902 Jul 08 j 06:15	0°Ω	
direct	-3908 Nov 04 j 14:09	9°≈53'21	-2 -2 -1	evening set	-3902 Aug 23 j 23:21	9° Ω 35'46	
direct	-3907 Jan 01 j 01:39			max. Earth dist.	-3902 Aug 23 j 23:21 -3902 Sep 03 j 19:27		6.36529 AU
avanina aat	·	13 ≈ 29°≈07'07		max. Earth dist.	-3902 Sep 03 j 19.27	11 663931	0.30329 AU
evening set	-3907 Mar 10 j 11:27				2002 9 05 : 14-20	120 022141	1922/01
	-3907 Mar 14 j 06:46	0° ℋ		conjunction	1 3	12° Ω 23'41	1°23'01
	200734 24:02.44	201/17144	10.171.20	minimum elong	-3902 Sep 05 j 14:20	12° Ω 23'41	1°23'08
conjunction	-3907 Mar 24 j 03:44		-1°-16'-30		-3902 Sep 17 j 07:47	15° Ω	
minimum elong	-3907 Mar 24 j 03:47	2° 升 17'45	1°16'36	morning rise	-3902 Sep 18 j 02:54	15° Ω 10'34	
max. Earth dist.	-3907 Mar 26 j 01:30	2°) 44′21	6.08036 AU		-3902 Dec 07 j 16:41	0° ™	
morning rise	-3907 Apr 06 j 22:01	5° ∺ 29'07		retrograde	-3901 Jan 17 j 20:20	2°M 32'12	
retrograde	-3907 Aug 13 j 18:44	24°) 55′46			-3901 Feb 28 j 16:08	30° R Ω	
min. Earth dist.	-3907 Oct 11 j 03:08	20°) €00'06	4.13228 AU	opposition	-3901 Mar 19 j 18:42	27° Ω 40'35	1°56'34
opposition	-3907 Oct 12 j 04:49	19° 米 51'19	-1°-35'-22	min. Earth dist.	-3901 Mar 21 j 01:24	27° Ω 30′50	4.32862 AU
direct	-3907 Dec 10 j 00:42	14° ¥ 50′53		direct	-3901 May 21 j 03:22	22° Ω 41'36	
	-3906 Mar 30 j 06:51	0 ° Υ			-3901 Aug 02 j 23:01	0° m /	
evening set	-3906 Apr 15 j 21:57	3° Ƴ 41'46		evening set	-3901 Sep 24 j 01:00	10° Mp 46'32	
				max. Earth dist.	-3901 Oct 04 j 21:58	13° m) 14'19	6.27959 AU
conjunction	-3906 Apr 29 j 16:38	6° Ƴ 48'41	0°-46'-42		,	•	
minimum elong	-3906 Apr 29 j 16:42	6° Ƴ 48'43	0°46'43	conjunction	-3901 Oct 06 j 13:29	13° m 36'48	1°10'14
max. Earth dist.	-3906 May 01 j 01:47	7° Υ 07'28	6.18883 AU	minimum elong		13° m 36'49	1°10'17
morning rise	-3906 May 13 j 10:52	9° Υ 55'12		morning rise	-3901 Oct 19 j 01:10	16° m/26'51	
retrograde	-3906 Sep 15 j 18:01	28° Y 20'58		morning rise	-3901 Dec 26 j 10:05	ე° <u>ი</u>	
opposition	-3906 Nov 14 j 04:06	23° Υ 19'36	0°-37'-42	retrograde	-3900 Feb 20 j 12:44	o — 4° Ω 32'15	
min. Earth dist.	-3906 Nov 13 j 14:28	23° Υ 24'11	4.24571 AU	retrograde	-3900 Apr 18 j 21:10	30°R Mb	
direct	-3905 Jan 13 j 05:30	18° Υ 16'50	4.24371710	opposition	-3900 Apr 21 j 14:39	29° m 39'09	1°21'26
direct	-3905 Apr 19 j 11:16	0°8		min. Earth dist.	-3900 Apr 21 j 14:39	29° m 31'09	4.22482 AU
		6° 8 40'29					4.22482 AU
evening set	-3905 May 20 j 19:51	0-040-29		direct	-3900 Jun 22 j 01:37	-	
	2005 1 02:10.56	00 41100	00.21.20		-3900 Aug 21 j 15:42	0° ⊡	
conjunction	-3905 Jun 03 j 10:56	9° 8 41'20		evening set	-3900 Oct 24 j 22:23	13°3209'27	
minimum elong	-3905 Jun 03 j 10:56	9° 8 41'20	0°02'33		200031 06:12.15	1.00 0 0 5100	000 510 1
behind sun begin	-3905 Jun 03 j 02:39	9° 8 36'46		conjunction	-3900 Nov 06 j 13:17		0°35'31
behind sun end	-3905 Jun 03 j 19:12	9° 8 45'54		minimum elong	-3900 Nov 06 j 13:19		0°35'29
max. Earth dist.	-3905 Jun 03 j 18:39	9° 8 45'35	6.29898 AU	max. Earth dist.	-3900 Nov 05 j 12:28		6.16722 AU
morning rise	-3905 Jun 17 j 00:00	12° 8 40'57		morning rise	-3900 Nov 19 j 05:08	19° Ω 02'03	
asc. node	-3905 Jun 25 j 23:26	14° 8 38'37					
	-3905 Jun 27 j 14:58						
	-3905 Oct 05 j 01:27	Π $^{\circ}0$					
retrograde	-3905 Oct 17 j 05:01	0° Ⅱ 14'29					
	-3905 Oct 29 j 07:17	30° ₹ 8					
opposition	-3905 Dec 15 j 21:03	25° 8 17'01	0°28'48				
min. Earth dist.	-3905 Dec 15 j 23:44	25° 8 16'08	4.34335 AU				
direct	-3904 Feb 15 j 05:52	20° 8 13'17					
	-3904 May 13 j 02:12	Π $^{\circ}0$					
evening set	-3904 Jun 22 j 01:08	8° Ⅱ 15′20					
-	V						
conjunction	-3904 Jul 05 j 08:24	11° Ⅱ 09'43	0°40'58				
minimum elong	-3904 Jul 05 j 08:21		0°41'07				
max. Earth dist.	-3904 Jul 04 j 16:55						
morning rise	-3904 Jul 18 j 12:14						
	-3904 Oct 20 j 13:40	0°9					
retrograde	-3904 Nov 15 j 22:38	1°905'47					
renograde		1°90547 30°R∏					
ammagiti	-3904 Dec 12 j 07:52		1024151				
opposition	-3903 Jan 15 j 00:48	26° Ⅱ 11'49	1°24'51				
min. Earth dist.	-3903 Jan 15 j 18:03	26° I I06'13	4.39685 AU				
direct	-3903 Mar 18 j 08:10						
	-3903 Jun 09 j 21:48	0°©					
evening set	-3903 Jul 23 j 21:39	8°959'45	C 40001 :=:				
max. Earth dist.	-3903 Aug 04 j 08:11	11°529'53	6.40081 AU				

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3900 in astronomical counting style is the year 3901 BCE in historical counting style. opposition -3900 Feb 20 i 12:44 4°**2**32'15 -3895 Oct 16 j 21:55 24° ¥ 45'03 -1°-28'-35 retrograde -3900 Apr 18 j 21:10 30°R M -3895 Oct 15 j 21:42 24° ¥53'18 4.15106 AU min. Earth dist. -3900 Apr 21 j 14:39 29° m 39'09 1°21'26 -3895 Dec 14 j 21:37 19° \(\cdot\)44'15 direct opposition -3900 Apr 22 j 15:44 29° m 31'09 4.22482 AU $0^{\circ}\Upsilon$ min. Earth dist. -3894 Mar 12 j 04:47 -3900 Jun 22 j 01:37 24° m 43'03 -3894 Apr 20 j 21:09 8°Y30'06 direct evening set -3900 Aug 21 j 15:42 0∘ಹ -3894 May 04 j 15:30 11°**Υ**'36'06 0°-41'-2 -3900 Oct 24 j 22:23 13°**♀**09'27 evening set conjunction -3894 May 04 j 15:33 11°**Υ**36'07 minimum elong 0°41'02 -3894 May 05 j 20:12 11°**Υ**52'17 conjunction -3900 Nov 06 j 13:17 16°**£**05'23 0°35'31 max. Earth dist. 6.20785 AU minimum elong -3900 Nov 06 j 13:19 16°**೨**05'25 0°35'29 morning rise -3894 May 18 j 09:26 14°**Υ**41'37 max. Earth dist. -3900 Nov 05 j 12:28 15°**⊆**50'56 6.16722 AU -3894 Aug 07 j 07:43 0°8 -3900 Nov 19 j 05:08 19°**೨**02'03 -3894 Sep 20 j 03:37 morning rise retrograde 2°**8**58'17 -3894 Nov 02 j 23:48 30°R**Y** -3899 Jan 09 j 07:41 0°M retrograde -3899 Mar 27 j 00:47 8°ML04'22 opposition -3894 Nov 18 j 15:11 27°**Υ**57'25 0°-28'-28 opposition -3899 May 27 j 01:26 3°ML08'10 0°17'54 min. Earth dist. -3894 Nov 18 j 03:57 28°**Y**01'13 4.26316 AU min. Earth dist. -3899 May 27 j 09:57 3°M05'25 4.11154 AU direct -3893 Jan 17 j 21:24 22°**Y**54'25 -3899 Jun 22 j 10:44 30°R <u>₽</u> -3893 Mar 30 j 22:23 0°8 direct -3899 Jul 26 j 02:42 28° £ 14'26 asc. node -3893 May 06 j 03:33 7°**8**03'18 -3899 Aug 28 j 10:11 0°M evening set -3893 May 25 j 12:15 11°**8**13'55 desc. node -3899 Sep 01 j 16:43 0°M27'47 -3899 Nov 18 j 09:37 15°M conjunction -3893 Jun 08 j 02:36 14°**8**13'49 evening set -3899 Nov 27 i 09:47 17° ML06'32 minimum elong -3893 Jun 08 j 02:34 14°**8**13'49 0°03'58 behind sun begin -3893 Jun 07 j 18:25 14°**8**09'20 conjunction -3899 Dec 10 j 06:29 20° ML09'28 0°-12'-20 behind sun end -3893 Jun 08 j 10:43 14°**8**18'18 -3899 Dec 10 j 06:28 20° ML09'27 0°12'28 max. Earth dist. -3893 Jun 08 j 07:24 14°**8**16'27 6.31364 AU minimum elong -3899 Dec 10 j 01:07 20° ML06'18 -3893 Jun 11 j 14:08 15°**႘** behind sun begin -3899 Dec 10 j 11:48 20° ML12'37 -3893 Jun 21 j 14:23 17°**8**12'21 behind sun end morning rise -3899 Dec 10 j 06:51 20°ML09'41 6.06398 AU -3893 Aug 26 j 06:57 max. Earth dist. Π $^{\circ}0$ -3899 Dec 23 j 05:35 23°M 13'51 -3893 Oct 21 j 11:29 4°**Ⅱ**40′05 morning rise retrograde -3898 Jan 21 j 20:23 0°**√** -3893 Dec 18 j 01:58 30°R℃ -3898 May 03 j 02:35 13°**尽**09'18 -3893 Dec 20 j 04:50 29°843'13 0°37'33 opposition retrograde -3893 Dec 20 j 09:51 29°**8**41'34 4.35409 AU -3898 Jul 02 j 17:01 8°**尽**09'10 0°-55'-3 min. Earth dist. opposition min. Earth dist. -3898 Jul 02 j 07:13 8°**尽** 12'24 4.02787 AU -3892 Feb 19 j 17:30 24°**8**39'32 direct -3898 Aug 30 j 12:03 3°**尽** 16'09 -3892 Apr 22 j 05:18 0°**П** direct -3897 Jan 01 j 18:35 22°**尽** 29'50 -3892 Jun 26 j 12:28 12°**Д**39'28 evening set evening set -3897 Jan 14 j 22:32 25° ₹38'24 0°-57'00 -3892 Jul 09 j 18:19 15°**Ⅲ**33'04 0°46'13 conjunction conjunction -3897 Jan 14 j 22:28 25° ₹38'22 0°57'10 minimum elong -3892 Jul 09 j 18:16 15°**Ц**33'03 0°46'23 minimum elong max. Earth dist. -3897 Jan 16 j 01:52 25°**尽** 54'45 6.00729 AU max. Earth dist. -3892 Jul 08 j 21:44 15°**Ⅲ**21'49 6.38253 AU -3897 Jan 28 j 05:46 28°**х** 48'47 -3892 Jul 22 j 21:00 18°**Ⅲ**25'02 morning rise morning rise -3897 Feb 02 j 06:14 0°る -3892 Sep 19 j 18:31 0°5 -3897 Jun 09 j 11:38 19°**♂**10'39 -3892 Nov 20 j 05:37 5°926'55 retrograde retrograde -3897 Aug 08 j 13:59 14°♂07'01 -1°-48'-55 -3891 Jan 19 j 08:31 0°€33'22 1°30'57 opposition opposition -3897 Aug 07 j 12:31 14°る15'35 4.00585 AU min. Earth dist. -3891 Jan 20 j 04:34 0°526'51 4.39764 AU min. Earth dist. -3897 Oct 05 j 14:25 9°る12'33 -3891 Jan 23 j 15:35 30°R II direct evening set -3896 Feb 07 j 13:44 28°る33'38 direct -3891 Mar 22 j 18:32 25°**Ⅱ**30'18 -3896 Feb 13 j 16:04 -3891 May 19 j 01:37 0ಂತಾ evening set -3891 Jul 28 i 06:00 13°521'49 conjunction -3896 Feb 21 i 00:50 1°≈44'41 -1°-20'-34 max. Earth dist. -3891 Aug 08 j 14:36 15°551'07 6.39641 AU minimum elong -3896 Feb 21 i 00:49 1°≈44'41 1°20'43 -3896 Feb 22 j 21:20 2°≈11'02 6.02026 AU -3891 Aug 10 j 02:52 16°5511'02 1°14'55 max. Earth dist. conjunction -3896 Mar 05 j 15:07 4°≈57'15 -3891 Aug 10 j 02:49 16°5511'01 morning rise minimum elong 1°15'03 -3896 Apr 19 j 23:23 15°≈ -3891 Aug 22 j 20:24 18°558'45 morning rise -3891 Oct 17 j 03:06 retrograde -3896 Jul 14 j 21:29 25°≈04'08 $0^{\circ}\Omega$ min. Earth dist. -3896 Sep 11 j 06:58 20°≈09'12 4.05336 AU retrograde -3891 Dec 21 j 06:57 6°**Ω**01′06 1°**Ω**09'25 1°58'53 -3896 Sep 12 j 13:20 19°≈58'50 -2°00'-51 -3890 Feb 19 j 21:10 opposition opposition direct -3896 Nov 09 j 16:44 15°≈01'14 min. Earth dist. -3890 Feb 21 j 02:10 1°**Ω**00'09 4.38249 AU -3895 Feb 25 j 05:23 0°**)**€ -3890 Mar 01 j 00:27 30°Rூ -3895 Mar 15 j 16:04 -3890 Apr 23 j 13:09 26°508'15 evening set 4°**)** 11'14 direct -3890 Jun 15 j 05:59 0 $^{\circ}$ Ω -3895 Mar 29 j 09:03 7°**∺**21'21 -1°-13'-42 conjunction evening set -3890 Aug 28 j 07:42 14°**Ω**03'01 minimum elong -3895 Mar 29 j 09:07 7°**)**€21'23 1°13'46 -3890 Sep 01 j 14:28 15°Ω max. Earth dist. -3895 Mar 31 j 07:26 7°**)** 48′12 6.09725 AU max. Earth dist. -3890 Sep 08 j 02:07 $16^{\circ}\Omega 26'44$ 6.35218 AU morning rise -3895 Apr 12 j 03:25 10° **∺** 32'01 retrograde -3895 Aug 18 j 12:18 29° **★**49'09 conjunction -3890 Sep 09 j 21:59 16° Ω51'12 1° 22'37

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, page 2 Attention, astronomical year style is used: The year -3890 in astronomical counting style is the year 3891 BCE in historical counting style.

Attention, astronomical year style is used: The year -3890 in astronomical counting style is the year 3891 BCE in historical counting style.								
minimum elong	-3890 Sep 09 j 21:59	16° Ω 51'12	1°22'45		-3884 Jul 29 j 02:59	30°R ≈		
morning rise	-3890 Sep 22 j 10:18	19° Ω 38′29		min. Earth dist.	-3884 Sep 16 j 05:53	25° ≈ 13′26	4.06726 AU	
	-3890 Nov 11 j 21:38	0° m)		opposition	-3884 Sep 17 j 11:31	25° ≈ 03′20	-1°-58'-43	
retrograde	-3889 Jan 22 j 13:22	7° ™ 06′26		direct	-3884 Nov 14 j 16:54	20° ≈ 05′16		
opposition	-3889 Mar 24 j 11:17	2° Mp 14'46			-3883 Feb 06 j 17:12	0° ∀		
min. Earth dist.	-3889 Mar 25 j 18:29		4.31224 AU	evening set	-3883 Mar 20 j 19:21	9° ∺ 11'30		
	-3889 Apr 11 j 19:21	30°R Ω						
direct	-3889 May 25 j 18:14	27° Ω 16′12		conjunction	-3883 Apr 03 j 12:39			
	-3889 Jul 08 j 01:59	0° m)		minimum elong	-3883 Apr 03 j 12:42			
evening set	-3889 Sep 28 j 11:59	15° Tp 24'56	C 2 C 1 4 2 A X X	max. Earth dist.	-3883 Apr 05 j 08:12		6.11346 AU	
max. Earth dist.	-3889 Oct 09 j 10:55	1/*110/54/28	6.26143 AU	morning rise	-3883 Apr 17 j 07:24	15° Υ 31'08		
agniunation	2000 Oct. 11; 00:42	100 mm 16101	1906'20	ratrograda	-3883 Jun 28 j 10:26	0° γ 4° Υ 39'16		
conjunction minimum elong	-3889 Oct 11 j 00:42 -3889 Oct 11 j 00:45	18° Mp 16'01 18° Mp 16'03		retrograde	-3883 Aug 23 j 02:50 -3883 Oct 18 j 13:41			
morning rise	-3889 Oct 11 j 00:43	21° m) 06'59	1 00 30	opposition	-3883 Oct 18 j 13:41 -3883 Oct 21 j 13:39		-1°-21'-21	
morning risc	-3889 Dec 03 j 21:34	0° ⊽		min. Earth dist.	-3883 Oct 20 j 14:35		4.16800 AU	
retrograde	-3888 Feb 25 j 10:52	9° ჲ 20'57		direct	-3883 Dec 19 j 17:12		4.10000 AC	
opposition	-3888 Apr 26 j 13:38		1°13'46	direct	-3882 Feb 18 j 15:13	0° Υ		
min. Earth dist.	-3888 Apr 27 j 11:37		4.20626 AU	evening set	-3882 Apr 25 j 19:07			
mm. Daren dioe.	-3888 Jun 09 j 11:13	30°R, M)	20020110	evening see	5002 i.pr 20 j 15.07	15 1000		
direct	-3888 Jun 26 j 18:51	29° m/31'50		conjunction	-3882 May 09 j 13:17	16° Y ′21′06	0°-35'-10	
	-3888 Jul 14 j 02:56	0∘ <u>⊽</u>		minimum elong	-3882 May 09 j 13:20		0°35'08	
evening set	-3888 Oct 29 j 14:48	18° ≏ 02'28		max. Earth dist.	-3882 May 10 j 15:00		6.22442 AU	
max. Earth dist.	-3888 Nov 10 j 09:34		6.15006 AU	morning rise	-3882 May 23 j 06:33			
	·				-3882 Jul 13 j 07:51	0°8		
conjunction	-3888 Nov 11 j 06:21	20° ₽ 59'26	0°29'09	retrograde	-3882 Sep 24 j 14:44	7° 8 34'22		
minimum elong	-3888 Nov 11 j 06:23	20° ₽ 59'27	0°29'05	opposition	-3882 Nov 23 j 02:03	2° 8 34'06	0°-19'-8	
morning rise	-3888 Nov 23 j 23:05	23° ≏ 57'13		min. Earth dist.	-3882 Nov 22 j 17:37	2° 8 36'56	4.27786 AU	
	-3888 Dec 20 j 17:21	0° M $^{\circ}$			-3882 Dec 13 j 04:59	30° ŖƳ		
retrograde	-3887 Apr 01 j 07:38	13°ML08'00		direct	-3881 Jan 22 j 13:23	27° Y ′30'55		
opposition	-3887 Jun 01 j 06:02	8° ጤ 11'14	0°07'24		-3881 Mar 04 j 08:25	9° 8		
min. Earth dist.	-3887 Jun 01 j 12:15	8°M09'13	4.09709 AU	asc. node	-3881 Mar 16 j 00:32	1° 8 29'43		
desc. node	-3887 Jul 11 j 06:31	3°M55'56			-3881 May 26 j 14:21			
direct	-3887 Jul 31 j 03:23	3° M ₁7'43		evening set	-3881 May 30 j 04:47	15° 8 47'12		
	-3887 Oct 31 j 15:59	15° ™						
evening set	-3887 Dec 02 j 08:23	22°M13'02		conjunction	-3881 Jun 12 j 18:04			
				minimum elong	-3881 Jun 12 j 18:04		0°10'18	
conjunction	-3887 Dec 15 j 06:05			behind sun begin	-3881 Jun 12 j 11:36			
minimum elong	-3887 Dec 15 j 06:03			behind sun end	-3881 Jun 13 j 00:31		(22520 AII	
max. Earth dist.	-3887 Dec 15 j 11:00	28°M22'11	6.05357 AU	max. Earth dist.	-3881 Jun 12 j 18:18 -3881 Jun 26 j 04:50		6.32530 AU	
morning rise	-3887 Dec 28 j 06:21	0° × 7		morning rise		0° Ⅱ		
retrograde	-3886 Jan 04 j 04:46 -3886 May 08 j 09:52	18° ∡ 22'41		retrograde	-3881 Aug 04 j 22:19 -3881 Oct 25 j 18:24	9° П 06'45		
opposition	-3886 Jul 07 j 23:32	13° × 22 41	-1°-4'-34	opposition	-3881 Oct 25 j 18:24 -3881 Dec 24 j 13:14	4° Ⅱ 10′23	0°46'07	
min. Earth dist.	-3886 Jul 07 j 10:21	13° × 21'37	4.02277 AU	min. Earth dist.	-3881 Dec 24 j 20:29	4° П 07'59	4.36217 AU	
direct	-3886 Sep 04 j 14:20	8° ∡ ¹28'53		mm. Darun dibu	-3880 Jan 31 j 03:24		50217110	
evening set	-3885 Jan 06 j 22:29	27° х 43'33		direct	-3880 Feb 24 j 05:09	29° 8 06'38		
<i>3</i>	-3885 Jan 16 j 11:28	ರ°0			-3880 Mar 19 j 13:46	0°II		
		-		evening set	-3880 Jul 01 j 00:24			
conjunction	-3885 Jan 20 j 03:18	0° る 52'30	-1°-1'-59	max. Earth dist.	-3880 Jul 13 j 06:29		6.38640 AU	
minimum elong	-3885 Jan 20 j 03:14	0° る 52'28	1°02'10		, , , , , , , , , , , , , , , , , , ,			
max. Earth dist.	-3885 Jan 21 j 09:17	1° る 10'25	6.00746 AU	conjunction	-3880 Jul 14 j 05:04	19° Ⅱ 58'11	0°51'16	
morning rise	-3885 Feb 02 j 11:34	4° ප 03'15		minimum elong	-3880 Jul 14 j 05:01	19° Ⅱ 58′09	0°51'26	
retrograde	-3885 Jun 14 j 16:29	24° る 24'25		morning rise	-3880 Jul 27 j 06:20	22° Ⅱ 49′26		
opposition	-3885 Aug 13 j 17:54	19° る 20'19	-1°-53'-25		-3880 Aug 30 j 15:09	0 \circ \odot		
min. Earth dist.	-3885 Aug 12 j 15:00	19° る 29'24	4.01137 AU	retrograde	-3880 Nov 24 j 13:20	9° © 50'22		
direct	-3885 Oct 10 j 18:23	14° る 25'26		opposition	-3879 Jan 23 j 17:38	4° 9 57'14	1°36'38	
	-3884 Jan 27 j 15:37	0° ≈		min. Earth dist.	-3879 Jan 24 j 15:18	4° 9 50'14	4.39728 AU	
evening set	-3884 Feb 12 j 19:19	3° ≈ 44'51			-3879 Mar 19 j 08:16	30°R∏		
	*****	-		direct	-3879 Mar 27 j 05:09	29° ∏ 54'25		
conjunction	-3884 Feb 26 j 07:27	6°≈55'51	-1°-21'-28		-3879 Apr 04 j 02:04	0°©		
minimum elong	-3884 Feb 26 j 07:27	6°≈55'50	1°21'37	evening set	-3879 Aug 01 j 15:24	17°5546'23	(2016) :::	
max. Earth dist.	-3884 Feb 28 j 06:29	7°≈23'36	6.03048 AU	max. Earth dist.	-3879 Aug 12 j 19:48	13'42ف2'20	6.39161 AU	
morning rise	-3884 Mar 10 j 22:18	10°≈08'11		i <i>(</i> *	2070 4 14:11.02	2006235110	101722	
		13"00				/II~U A 4 5 1 1 V		
	-3884 Apr 01 j 02:59	15° ≈		conjunction	-3879 Aug 14 j 11:02			
retrograde	-3884 Jul 10 j 13:44 -3884 Jul 19 j 21:17	0° ₩ 0° ₩ 08'36		minimum elong morning rise	-3879 Aug 14 j 11:00 -3879 Aug 27 j 03:47	20° © 35'17		

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, page 3 Attention, astronomical year style is used: The year -3879 in astronomical counting style is the year 3880 BCE in historical counting style.

Attention, astronom	nical year style is used: The	he year -3879	in astronomical co	unting style is the year	r 3880 BCE in historical of	counting style	
	-3879 Sep 27 j 12:04	0 $^{\circ}\Omega$		conjunction	-3872 Mar 02 j 10:32	11° ≈ 58′20	-1°-21'-44
retrograde	-3879 Dec 25 j 19:05	10° Ω 28′03		minimum elong	-3872 Mar 02 j 10:33	11° ≈ 58′20	1°21'52
opposition	-3878 Feb 24 j 09:41	5° Ω 36'30	2°00'15	max. Earth dist.	-3872 Mar 04 j 08:33		6.04022 AU
min. Earth dist.	-3878 Feb 25 j 15:53	5° Ω 26'51	4.37383 AU		-3872 Mar 15 j 08:12		
direct	-3878 Apr 28 j 01:30	0° Ω 35'39		morning rise	-3872 Mar 16 j 02:16		
_	-3878 Aug 16 j 11:53			_	-3872 May 27 j 04:47	0°) {	
evening set	-3878 Sep 01 j 16:56			retrograde	-3872 Jul 24 j 15:31	5° ₩ 04'56	
max. Earth dist.	-3878 Sep 12 j 12:35	20° 81 57'15	6.34047 AU	min. Earth dist.	-3872 Sep 21 j 00:30	0°) €09'52	4.07939 AU
. ,.	2070 0 14:06.52	210 020156	1001147	opposition	-3872 Sep 22 j 06:07		-1°-55'-49
conjunction	-3878 Sep 14 j 06:53			1: 4	-3872 Sep 22 j 05:22		
minimum elong	-3878 Sep 14 j 06:54		1°21'53	direct	-3872 Nov 19 j 13:06	25°≈01°15 0°) €	
morning rise	-3878 Sep 26 j 18:44				-3871 Jan 15 j 15:06		
	-3878 Oct 23 j 20:55	0°M)		evening set	-3871 Mar 25 j 19:37	14°π04'43	
retrograde opposition	-3877 Jan 27 j 05:10 -3877 Mar 29 j 04:40	11° Mp 42'13 6° Mp 50'28	1°50'01	conjunction	-3871 Apr 08 j 13:27	170¥12!54	-1°-6'-43
min. Earth dist.	-3877 Mar 30 j 10:19	6° Mp 41'03	4.29842 AU	minimum elong	-3871 Apr 08 j 13:30		1°06'47
direct	-3877 May 30 j 07:56	1° Mp 52'24	4.29042 AU	max. Earth dist.	-3871 Apr 10 j 06:53		6.12712 AU
evening set	-3877 Oct 02 j 23:39			morning rise	-3871 Apr 10 j 00:33		0.12/12 AO
max. Earth dist.	-3877 Oct 14 j 00:22		6.24683 AU	morning risc	-3871 Jun 06 j 00:54	20 γ (23 23	
max. Latur dist.	-3077 Oct 14 j 00.22	22 III 33 0 4	0.24003 AU	retrograde	-3871 Aug 27 j 17:55	9° Υ 23'51	
conjunction	-3877 Oct 15 j 12:23	22° m 55'42	1°02'20	min. Earth dist.	-3871 Oct 25 j 06:44	4° Υ 27'27	4.18166 AU
minimum elong	-3877 Oct 15 j 12:26	22° m 55'44	1°02'21	opposition	-3871 Oct 26 j 03:04	4° Υ 20'32	-1°-13'-47
morning rise	-3877 Oct 28 j 00:55	25° m) 47'29	1 02 21	оррозион	-3871 Dec 04 j 02:42		1 15 47
morning rise	-3877 Nov 15 j 20:12	0∘ ರ		direct	-3871 Dec 24 j 11:20	29° 升 19'00	
retrograde	-3876 Mar 01 j 10:54				-3870 Jan 13 j 23:40	0°Υ	
opposition	-3876 May 01 j 12:41	9° £ 14'58	1°05'39	evening set	-3870 Apr 30 j 15:22		
min. Earth dist.	-3876 May 02 j 09:04	9° £ 08'27	4.19177 AU				
direct	-3876 Jul 01 j 14:18	4° £ 19'41		conjunction	-3870 May 14 j 09:16	21° Υ 02'21	0°-29'-10
evening set	-3876 Nov 03 j 06:25	22° £ 53'05		minimum elong	-3870 May 14 j 09:18		0°29'08
C	,			max. Earth dist.	-3870 May 15 j 07:37		6.23719 AU
conjunction	-3876 Nov 15 j 22:45	25° ≏ 50'56	0°22'40	morning rise	-3870 May 28 j 02:01	24° Y 06′09	
minimum elong	-3876 Nov 15 j 22:47		0°22'35	•	-3870 Jun 24 j 08:38	9° 8	
max. Earth dist.	-3876 Nov 15 j 06:05	25° ≏ 41'10	6.13719 AU	retrograde	-3870 Sep 28 j 23:24	12° 8 08'26	
morning rise	-3876 Nov 28 j 16:20	28° ≏ 49'40		opposition	-3870 Nov 27 j 11:48	7° 8 08'43	0°-9'-50
	-3876 Dec 03 j 17:33	0°M₊		min. Earth dist.	-3870 Nov 27 j 04:49	7° 8 11'03	4.28882 AU
	-3875 Feb 19 j 14:39	15° M ₊		asc. node	-3869 Jan 24 j 11:49	2° 8 06'01	
retrograde	-3875 Apr 06 j 10:10	18°ML07'13		direct	-3869 Jan 27 j 02:07	2° 8 05'23	
desc. node	-3875 May 21 j 06:31	15°ML11'30			-3869 May 09 j 21:08		
	-3875 May 22 j 21:08	15°RM		evening set	-3869 Jun 03 j 20:27	20° 8 19'44	
opposition	-3875 Jun 06 j 08:45		0°-2'-58				
min. Earth dist.	-3875 Jun 06 j 11:42		4.08702 AU	conjunction	-3869 Jun 17 j 08:46		0°16'24
direct	-3875 Aug 05 j 01:04	8°M16'40		minimum elong	-3869 Jun 17 j 08:44		0°16'32
	-3875 Oct 11 j 11:03			max. Earth dist.	-3869 Jun 17 j 05:32		6.33383 AU
evening set	-3875 Dec 07 j 05:25			morning rise	-3869 Jun 30 j 18:23		
	-3875 Dec 18 j 20:57	0° ∡ 7		_	-3869 Jul 18 j 04:32	0°II	
				retrograde	-3869 Oct 30 j 03:29	13° Ⅱ 34'07	
conjunction	-3875 Dec 20 j 03:53	0° 🖈 18'25	0°-26'-5	opposition	-3869 Dec 28 j 22:03	8° I 38'17	0°54'21
minimum elong	-3875 Dec 20 j 03:50	0° ₹ 18'24	0°26'13	min. Earth dist.	-3869 Dec 29 j 07:52	8° Ⅱ 35'04	4.36779 AU
max. Earth dist.	-3875 Dec 20 j 11:55	0° ₹ 23'12	6.04705 AU	direct	-3868 Feb 28 j 17:36	3° II 34'37	
morning rise	-3874 Jan 02 j 05:15	3° х ⁷ 24'31		evening set	-3868 Jul 05 j 12:16	21° Ⅱ 32′23	
retrograde min. Earth dist.	-3874 May 13 j 13:48 -3874 Jul 12 j 11:04	23° х 28'36 18° х 32'28	4.02049 AU	conjunction	-3868 Jul 18 j 15:40	2401124141	0°56'00
	·	18° ⊀ '32′28 18° ⊀ '27'19	4.02049 AU -1°-13'-19	•			0°56'09
opposition direct	-3874 Jul 13 j 02:34 -3874 Sep 09 j 15:30	13° × ² /19	-1 -13-19	minimum elong max. Earth dist.	-3868 Jul 18 j 15:37 -3868 Jul 17 j 14:06		6.38856 AU
direct	-3874 Dec 30 j 23:43	0°名		morning rise	-3868 Jul 31 j 15:43		0.38830 AU
evening set	-3873 Jan 11 j 23:34	0 0 2° る 49'13		morning risc	-3868 Aug 13 j 09:21	0°9	
evening set	-5075 Jan 11 J 25.34	∠ ۱ ۶۱۵		retrograde	-3868 Nov 28 j 21:41		
conjunction	-3873 Jan 25 j 05:29	5° る 58'30	-1°-6'-21	opposition	-3867 Jan 28 j 03:27	9°922'58	1°41'45
minimum elong	-3873 Jan 25 j 05:26	5° る 58'28	1°06'31	min. Earth dist.	-3867 Jan 29 j 02:08	9° 9 15'38	4.39624 AU
max. Earth dist.	-3873 Jan 26 j 15:35	6°පි18'50	6.00953 AU	direct	-3867 Mar 31 j 15:40	4°920'19	
morning rise	-3873 Feb 07 j 14:35	9°る09'32	5.00/55 110	evening set	-3867 Aug 06 j 00:54		
retrograde	-3873 Jun 19 j 18:54			max. Earth dist.	-3867 Aug 17 j 04:50		6.38738 AU
opposition	-3873 Aug 18 j 17:56		-1°-56'-53	Land dist.	11mg 1/ j 01.50		
min. Earth dist.	-3873 Aug 17 j 14:47	24°る34'00	4.01773 AU	conjunction	-3867 Aug 18 j 19:35	25°501'14	1°19'22
direct	-3873 Oct 15 j 18:09	19° る 29'35		minimum elong	-3867 Aug 18 j 19:33		1°19'31
	-3872 Jan 09 j 15:40	0° ≈		morning rise	-3867 Aug 31 j 11:15		
evening set	-3872 Feb 17 j 21:43	8° ≈ 47'27		Č	-3867 Sep 10 j 12:59	0°N	
-	ž.				. ,		

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3867 in astronomical counting style is the year 3868 BCE in historical counting style. $-3867 \text{ Dec } 30 \text{ j } 06:17 \quad 14^{\circ} \Omega 56'09$ direct -3861 Oct 20 j 17:41 24°る36'07 retrograde $-3866 \text{ Feb} \ 28 \text{ j} \ 22:29 \ 10^{\circ} \Omega 04'40 \ 2^{\circ} 00'53$ -3861 Dec 18 j 17:27 opposition 0°≈ min. Earth dist. -3866 Mar 02 j 04:51 4.36666 AU -3860 Feb 23 j 02:16 13°≈53'50 9°**Ω**54'59 evening set -3866 May 02 j 13:32 -3860 Feb 27 j 19:26 15°≈ direct 5°**Ω**04'10 -3866 Jul 30 j 01:07 $15^{\circ}\Omega$ -3860 Mar 07 j 16:06 17°≈04'49 -1°-21'-23 evening set -3866 Sep 06 j 01:48 23°Ω02'04 conjunction max. Earth dist. -3860 Mar 07 j 16:07 17°≈04'49 1°21'30 -3866 Sep 16 j 20:04 25°**\O**26'30 6.33066 AU minimum elong -3860 Mar 09 j 14:48 17°≈32'14 max. Earth dist. 6.04717 AU conjunction -3866 Sep 18 j 15:09 25° Ω50'41 1°20'27 morning rise -3860 Mar 21 j 08:25 20°≈16'58 minimum elong -3866 Sep 18 j 15:10 25° **Ω** 50'41 1°20'32 -3860 May 04 j 11:53 0°**∀** -3866 Oct 01 j 02:55 28° **Ω**38'36 -3860 Jul 29 j 14:37 morning rise retrograde 10°**₩**06'07 -3866 Oct 07 j 05:24 -3860 Sep 25 j 22:49 0° M min. Earth dist. 5°**光**10'37 4.08935 AU -3865 Jan 31 j 21:59 16° Mp 17'23 -3860 Sep 27 j 02:49 retrograde opposition 5°**)**€01'03 -1°-52'-2 opposition -3865 Apr 02 j 21:55 11° **m** 25'20 1°45'42 direct -3860 Nov 24 j 13:12 0°**)**€02'05 min. Earth dist. -3865 Apr 04 j 02:53 11° **m** 16'07 4.28629 AU evening set -3859 Mar 30 j 22:46 19°**米**03'31 direct -3865 Jun 03 j 22:38 6° M 27'34 evening set -3865 Oct 07 j 10:04 24° Mp 41'10 conjunction -3859 Apr 13 j 17:01 22° ¥ 12'23 -1°-2'-28 minimum elong -3859 Apr 13 j 17:05 22°**米** 12'25 1°02'31 conjunction -3865 Oct 19 j 23:11 27° m 33'33 0°57'48 max. Earth dist. -3859 Apr 15 j 09:14 22° ★ 35'25 6.13938 AU minimum elong -3865 Oct 19 j 23:15 27° m 33'35 0°57'49 morning rise -3859 Apr 27 j 11:57 25° \(\frac{1}{2}\)21'23 max. Earth dist. -3865 Oct 18 j 14:08 27° m 14'35 6.23339 AU -3859 May 18 j 08:10 -3865 Oct 30 j 14:24 0∘**⊽** retrograde $-3859 \text{ Sep } 01 \text{ i } 09:32 \quad 14^{\circ} \Upsilon 14'23$ morning rise -3865 Nov 01 i 12:01 0°**ჲ**26'04 opposition -3859 Oct 30 i 19:05 9°Υ11'33 -1°-5'-31 retrograde -3864 Mar 06 j 08:10 18°**2**54'16 min. Earth dist. -3859 Oct 29 i 23:18 9°Υ18'16 4.19508 AU opposition -3864 May 06 j 10:29 14° \(\Omega\) 00'01 0°57'06 direct -3859 Dec 29 i 06:06 4°**Y**09'45 -3864 May 07 j 04:47 13°**♀**54'09 -3858 May 05 j 14:23 22°**Y**45'39 min. Earth dist. 4 17778 AU evening set -3864 Jul 06 j 07:42 9°**£**05'04 direct -3864 Nov 07 j 21:23 27°**£**41'16 $-3858 \text{ May } 19 \text{ j } 07:45 \quad 25^{\circ} \Upsilon 49'27$ 0°-22'-50 conjunction evening set -3864 Nov 17 j 18:18 $-3858 \text{ May } 19 \text{ j } 07:47 \quad 25^{\circ} \Upsilon 49'28$ minimum elong 0°22'47 0°M -3858 May 20 j 02:23 25°**Υ**59'51 max. Earth dist. 6.25109 AU -3864 Nov 20 j 14:16 0°M39'57 0°16'04 -3858 Jun 01 j 23:51 28°**Υ**'52'22 conjunction morning rise -3864 Nov 20 j 14:17 -3858 Jun 07 j 02:15 0°**႘** minimum elong 0°**IL**39'57 0°15'59 -3864 Nov 20 j 12:43 -3858 Aug 30 j 18:21 15°**႘** 0°M39′02 behind sun begin -3858 Oct 03 j 12:32 16°847'49 -3864 Nov 20 j 15:52 behind sun end 0°M40'53 retrograde -3864 Nov 19 j 23:27 -3858 Nov 06 j 01:00 15°R₩ max. Earth dist. 0°MJ31'15 6.12381 AU -3864 Dec 03 j 08:54 -3858 Dec 02 j 00:21 11°848'42 0°00'-17 morning rise 3°M39'42 opposition -3863 Jan 24 j 21:47 15°M⋅ -3858 Dec 01 j 20:02 11°850'08 4.30220 AU min. Earth dist. desc. node -3863 Mar 31 j 14:36 22° ML 53'01 asc. node -3858 Dec 03 j 18:01 11°**8**34'47 retrograde -3863 Apr 11 j 12:17 23°ML04'20 direct -3857 Jan 31 j 19:52 6°**8**45'18 opposition -3863 Jun 11 j 10:16 18°ML06'26 0°-13'-18 -3857 Apr 20 j 20:30 15°**႘** min. Earth dist. -3863 Jun 11 j 10:42 18°ML06'18 4.07526 AU evening set -3857 Jun 08 j 14:04 24°**8**56'36 -3863 Jul 07 j 08:09 15°RML direct -3863 Aug 09 j 22:44 13°M 13'13 -3857 Jun 22 j 01:20 27°\(253'55\) 0°22'39 conjunction -3863 Sep 12 j 04:20 15°M -3857 Jun 22 j 01:18 27°**8**53'54 0°22'47 minimum elong -3863 Dec 02 j 15:04 max. Earth dist. -3857 Jun 21 j 20:16 27°**8**51'08 6.34595 AU 0°**∡**7 -3857 Jul 01 i 14:48 0°**Ⅱ** evening set -3863 Dec 12 i 02:03 2°**х** 13′26 -3857 Jul 05 i 09:33 0°**Ⅱ**49'40 morning rise 5°**х** 18'44 0°-32'-37 conjunction -3863 Dec 25 i 01:38 retrograde -3857 Nov 03 i 10:57 18°**Д**04'08 -3856 Jan 02 j 08:10 13°**Д**08'48 1°02'20 minimum elong -3863 Dec 25 i 01:36 5°**х** 18'43 0°32'47 opposition max. Earth dist. -3863 Dec 25 i 14:17 5°**₹**26'16 6.03801 AU min. Earth dist. -3856 Jan 02 j 18:42 13°**Д**05'20 4.37819 AU -3862 Jan 07 j 03:59 8°×725'41 direct -3856 Mar 04 j 05:57 8°**Ⅱ**05'16 morning rise evening set -3862 May 18 j 19:55 28° ₹34'16 -3856 Jul 10 j 00:35 26° **Ⅲ**00'22 retrograde opposition -3862 Jul 18 j 05:33 23° ₹32'30 -1°-21'-34 max. Earth dist. -3856 Jul 21 j 23:12 28°**Ⅲ**36'49 6.39649 AU -3862 Jul 17 j 12:44 23° ₹38'05 4.01529 AU min. Earth dist. -3862 Sep 14 j 15:47 18°**х** 39'05 direct conjunction -3856 Jul 23 j 02:30 28°**Ⅲ**51'46 1°00'24 -3862 Dec 13 j 07:08 0°₹ minimum elong -3856 Jul 23 j 02:27 28°**Д**51'44 1°00'33 -3861 Jan 17 j 01:42 7°**る**55'58 -3856 Jul 28 j 07:06 0ಂತಾ evening set -3856 Aug 05 j 01:09 morning rise 1°**©**41'32 -3861 Jan 30 j 08:28 11°**⋜**05'42 -1°-10'-14 -3856 Dec 03 j 06:15 18°539'51 conjunction retrograde -3861 Jan 30 j 08:25 11°**궁**05'40 1°10'24 -3855 Feb 01 j 13:15 13°547'19 minimum elong opposition 1°46'11 -3861 Jan 31 j 19:39 11°중26'40 6.00825 AU max. Earth dist. min. Earth dist. -3855 Feb 02 j 13:45 13°539'26 4.40123 AU morning rise -3861 Feb 12 j 18:46 14°る17'14 direct -3855 Apr 05 j 04:09 8°9544'58 -3861 Apr 30 j 06:05 0°≈ evening set -3855 Aug 10 j 08:43 26°535'19 retrograde -3861 Jun 24 j 20:16 4°≈36'26 max. Earth dist. -3855 Aug 21 j 09:44 29°501'05 6.38880 AU -3861 Aug 20 j 07:31 30°₹♂ -3861 Aug 23 j 18:46 29°**♂**31'47 -1°-59'-34 -3855 Aug 23 j 02:17 29°523'28 opposition conjunction 1°20'51 min. Earth dist. -3861 Aug 22 j 14:02 29°**정**41'32 4.02074 AU -3855 Aug 23 j 02:16 29°523'27 minimum elong

Attention, astronomical year style is used: The year -3855 in astronomical counting style is the year 3856 BCE in historical counting style.							
,	-3855 Aug 25 j 20:30	0°Ω		retrograde	-3849 Jun 29 j 23:16	9° ≈ 42'34	
morning rise	-3855 Sep 04 j 17:06	2° Ω 10'19		opposition	-3849 Aug 28 j 18:36		-2°-1'-13
. <i>8</i>	-3855 Nov 10 j 03:40	15° Ω		min. Earth dist.	-3849 Aug 27 j 14:00	4°≈47'25	4.02082 AU
retrograde	-3854 Jan 03 j 15:11	19° Ω 18'54			-3849 Oct 12 j 10:31		
S	-3854 Mar 01 j 02:52	15° Ŗ Ω		direct	-3849 Oct 25 j 18:16		
opposition	-3854 Mar 05 j 09:24	14° Ω 27'25	2°00'44		-3849 Nov 08 j 01:55	0° ≈	
min. Earth dist.	-3854 Mar 06 j 15:50	14° Ω 17'43	4.36444 AU		-3848 Feb 10 j 21:03	15° ≈	
direct	-3854 May 06 j 23:35	9° Ω 27'14		evening set	-3848 Feb 28 j 06:42	19° ≈ 00'10	
	-3854 Jul 09 j 19:40	15° Ω		C	J		
evening set	-3854 Sep 10 j 07:40	27° Ω 24'45		conjunction	-3848 Mar 12 j 21:30	22° ≈ 11'23	-1°-20'-20
max. Earth dist.	-3854 Sep 21 j 03:00	29° Ω 49'58	6.32497 AU	minimum elong	-3848 Mar 12 j 21:31		1°20'27
	-3854 Sep 21 j 20:50	0° m)		max. Earth dist.	-3848 Mar 14 j 21:30	22° ≈ 39'30	6.05202 AU
	1 3	•		morning rise	-3848 Mar 26 j 14:37		
conjunction	-3854 Sep 22 j 20:40	0° Mp 13′24	1°18'39	Č	-3848 Apr 15 j 19:20	0°) €	
minimum elong	-3854 Sep 22 j 20:42	0° mp 13'25		retrograde	-3848 Aug 03 j 12:03		
morning rise	-3854 Oct 05 j 08:02	3° m 01'27		opposition	-3848 Oct 01 j 23:14		-1°-47'-21
retrograde	-3853 Feb 05 j 10:32	20° m/44'10		min. Earth dist.	-3848 Sep 30 j 18:40		4.09843 AU
opposition	-3853 Apr 07 j 11:32	15° m 51'59	1°40'50	direct	-3848 Nov 29 j 10:57	5°) €03'28	
min. Earth dist.	-3853 Apr 08 j 16:26	15° mp 42'48	4.27721 AU	evening set	-3847 Apr 05 j 02:04		
direct	-3853 Jun 08 j 10:02	10° m 54'37	27721110	evening sec	501, 11p1 00 j 02.01	2.,(0202	
evening set	-3853 Oct 11 j 17:07	29° m 09'37		conjunction	-3847 Apr 18 j 20:30	27° ₩ 11'17	0°-57'-43
evening sec	-3853 Oct 15 j 09:11	0° ರ		minimum elong	-3847 Apr 18 j 20:34		0°57'44
max. Earth dist.	-3853 Oct 13 j 05:11 -3853 Oct 22 j 20:55	0 — 1° ≏ 43'20	6.22166 AU	max. Earth dist.	-3847 Apr 10 j 20:34 -3847 Apr 20 j 10:08		6.15194 AU
max. Earth dist.	-3633 Oct 22 j 20.33	1 -43 20	0.22100 AC	max. Larm dist.	-3847 May 01 j 04:42	0° Υ	0.13174 AO
conjunction	-3853 Oct 24 j 06:19	2° ჲ 02'34	0°53'04	morning rise	-3847 May 01 j 04:42	0° Υ 19'43	
minimum elong	-3853 Oct 24 j 06:22	2° ⊆ 02'36	0°53'04	retrograde	-3847 Sep 06 j 01:53	19° Υ 04'50	
Č	-3853 Nov 05 j 19:48	2 2 02 30 4° 2 55'50	0 33 04	opposition	-3847 Nov 04 j 10:53	19 γ 04 30 14° γ 02'19	0°-56'-47
morning rise	·	23° £ 30'44		min. Earth dist.		14° Υ 0219	4.20946 AU
retrograde	-3852 Mar 11 j 01:31	18° £ 36'02	0°48'29	direct	-3847 Nov 03 j 17:13	9° Υ 00'07	4.20946 AU
opposition	-3852 May 11 j 04:12				-3846 Jan 03 j 03:00		
min. Earth dist.	-3852 May 11 j 20:52	18° £ 30'41	4.16395 AU	evening set	-3846 May 10 j 12:42		
direct	-3852 Jul 10 j 21:22	13° Ω 41'20			-3846 May 21 j 14:22	0°8	
	-3852 Nov 02 j 05:43	0°M			2046 M 24 : 05-20	00 425117	00 171 21
evening set	-3852 Nov 12 j 08:35	2°M20'48		conjunction	-3846 May 24 j 05:39	0° 8 35'17	0°-16'-21
	2052 31 25:02 26	70 m 20120	0000126	minimum elong	-3846 May 24 j 05:41	0° 8 35'17	0°16'17
conjunction	-3852 Nov 25 j 02:26	5°M20'29	0°09'36	max. Earth dist.	-3846 May 24 j 22:56	0° 8 44'54	6.26612 AU
minimum elong	-3852 Nov 25 j 02:26	5°M20'29	0°09'31	morning rise	-3846 Jun 06 j 20:45	3° 8 37'10	
behind sun begin	-3852 Nov 24 j 19:43	5°M16'33			-3846 Aug 02 j 01:50	15° 8	
behind sun end	-3852 Nov 25 j 09:09	5°M24'25		retrograde	-3846 Oct 07 j 21:58		
max. Earth dist.	-3852 Nov 24 j 15:04	5° ™ 13'49	6.10932 AU	asc. node	-3846 Oct 12 j 21:10		
morning rise	-3852 Dec 07 j 21:53	8°M21'17		opposition	-3846 Dec 06 j 11:54		0°09'14
	-3851 Jan 06 j 05:02	15° ™		min. Earth dist.	-3846 Dec 06 j 08:40		4.31629 AU
desc. node	-3851 Feb 10 j 20:59	21°M56'55			-3846 Dec 17 j 11:29		
retrograde	-3851 Apr 16 j 12:44	27°M53'40		direct	-3845 Feb 05 j 10:44		
opposition	-3851 Jun 16 j 08:14	22°M55'22	0°-23'-12		-3845 Mar 27 j 16:56		
min. Earth dist.	-3851 Jun 16 j 07:31	22°M55'35	4.06133 AU	evening set	-3845 Jun 13 j 06:23		
direct	-3851 Aug 14 j 16:53	18° M ∙02'14			-3845 Jun 15 j 12:02	Π $^{\circ}0$	
	-3851 Nov 15 j 19:51	0° ∡ 7					
evening set	-3851 Dec 16 j 20:23	7° ∡ 06'43		conjunction	-3845 Jun 26 j 16:16		0°28'45
				minimum elong	-3845 Jun 26 j 16:14	2° Ⅱ 27′01	0°28'53
conjunction	-3851 Dec 29 j 20:51	10° ∡ 12'59	0°-38'-42	max. Earth dist.	-3845 Jun 26 j 06:52	2° Ⅱ 21'53	6.35764 AU
minimum elong	-3851 Dec 29 j 20:48	10° ∡ 12'57	0°38'52	morning rise	-3845 Jul 09 j 23:17	5° Ⅱ 21'46	
max. Earth dist.	-3851 Dec 30 j 10:45	10° ∡ ¹21'16	6.02587 AU	retrograde	-3845 Nov 07 j 20:01	22° ∏ 31'46	
morning rise	-3850 Jan 12 j 00:32	13° ∡ ¹21′00		opposition	-3844 Jan 06 j 17:53	17° Ⅱ 36'51	1°09'59
	-3850 Apr 05 j 00:04	ರ°0		min. Earth dist.	-3844 Jan 07 j 07:26	17° Ⅲ 32'25	4.38651 AU
retrograde	-3850 May 23 j 21:11	3° る 35'23		direct	-3844 Mar 08 j 20:03	12° Ⅱ 33′20	
	-3850 Jul 12 j 05:57	30°Ŗ ⋌ ¹			-3844 Jul 12 j 11:01	0 \circ \odot	
min. Earth dist.	-3850 Jul 22 j 10:17	28° ₹ 39'37	4.00645 AU	evening set	-3844 Jul 14 j 11:40	0°\$26'22	
opposition	-3850 Jul 23 j 05:40	28° х ³33′09	-1°-29'00	max. Earth dist.	-3844 Jul 26 j 07:12	3° 5 01'06	6.40047 AU
direct	-3850 Sep 19 j 11:50	23° ∡ ³39'32			-		
	-3850 Nov 22 j 18:59	8°0		conjunction	-3844 Jul 27 j 12:24	3° © 17'05	1°04'29
evening set	-3849 Jan 22 j 02:44	12° る 59'59		minimum elong	-3844 Jul 27 j 12:20	3°517'03	1°04'39
-	Ÿ			morning rise	-3844 Aug 09 j 09:40	6° © 06'08	
conjunction	-3849 Feb 04 j 10:46	16° ප 10'27	-1°-13'-29	retrograde	-3844 Dec 07 j 13:33	23° © 03'51	
minimum elong	-3849 Feb 04 j 10:43	16° පි 10'26	1°13'39	opposition	-3843 Feb 05 j 23:16	18° © 11'31	1°50'09
max. Earth dist.	-3849 Feb 06 j 00:59	16° පි 33'15	6.00358 AU	min. Earth dist.	-3843 Feb 07 j 00:19	18° © 03'28	4.40083 AU
morning rise	-3849 Feb 17 j 22:01	19° る 22'37		direct	-3843 Apr 09 j 14:19	13° © 09'22	
<u> </u>	-3849 Apr 06 j 18:35	0° ≈			-3843 Aug 10 j 03:55	0°N	
	1 - 3				5 . 3		

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, page 6 Attention, astronomical year style is used: The year -3843 in astronomical counting style is the year 3844 BCE in historical counting style.

Attention, astronom	ical year style is used: The	ne year -3843	in astronomical cou	inting style is the year	3844 BCE in historical of	counting style.	
evening set	-3843 Aug 14 j 17:15	0° Ω 59'41		conjunction	-3837 Feb 09 j 17:30		-1°-16'-19
max. Earth dist.	-3843 Aug 25 j 16:24	3° Ω 24'41	6.38389 AU	minimum elong	-3837 Feb 09 j 17:28		1°16'30
				max. Earth dist.	-3837 Feb 11 j 10:57		6.00728 AU
conjunction	-3843 Aug 27 j 09:51	3° Ω 47'36		morning rise	-3837 Feb 23 j 05:46		
minimum elong	-3843 Aug 27 j 09:50	3° Ω 47'36	1°22'06		-3837 Mar 18 j 12:17	0° ≈	
morning rise	-3843 Sep 08 j 23:50	6° Ω 34'19		retrograde	-3837 Jul 05 j 02:20	14° ≈ 54'17	
	-3843 Oct 19 j 11:07	15° Ω		opposition	-3837 Sep 02 j 20:30	9° ≈ 49'16	-2°-2'00
retrograde	-3842 Jan 08 j 03:45	23° Ω 46′05		min. Earth dist.	-3837 Sep 01 j 14:16	9° ≈ 59'33	4.03051 AU
opposition	-3842 Mar 09 j 22:39	18° Ω 54'38	2°00'02	direct	-3837 Oct 30 j 20:12	4° ≈ 52'47	
min. Earth dist.	-3842 Mar 11 j 06:20	18° Ω 44'33	4.35525 AU		-3836 Jan 23 j 05:41	15° ≈	
	-3842 Apr 14 j 09:55	15°R Ω		evening set	-3836 Mar 04 j 12:29	24° ≈ 08′33	
direct	-3842 May 11 j 12:25	13° Ω 54'48					
	-3842 Jun 07 j 14:48	15° Ω		conjunction	-3836 Mar 18 j 03:51		-1°-18'-45
	-3842 Sep 06 j 02:30	0° ™		minimum elong	-3836 Mar 18 j 03:54		1°18'52
evening set	-3842 Sep 14 j 16:10	1° m 54'08		max. Earth dist.	-3836 Mar 20 j 02:50		6.06658 AU
max. Earth dist.	-3842 Sep 25 j 10:21	4° Mp 19′12	6.31211 AU		-3836 Mar 29 j 15:43	0° ∀	
				morning rise	-3836 Mar 31 j 21:31	0° ∺ 31′08	
conjunction	-3842 Sep 27 j 04:55	4°₩43'12	1°16'24	retrograde	-3836 Aug 08 j 07:27		
minimum elong	-3842 Sep 27 j 04:57	4° Mp 43'14	1°16'29	opposition	-3836 Oct 06 j 18:28		-1°-41'-59
morning rise	-3842 Oct 09 j 16:23	7° ₯ 31'48		min. Earth dist.	-3836 Oct 05 j 15:15		4.11610 AU
retrograde	-3841 Feb 10 j 03:58	25°M21'08		direct	-3836 Dec 04 j 10:30	10°) 02′01	
opposition	-3841 Apr 12 j 05:57	20° m 28'39	1°35'15	evening set	-3835 Apr 10 j 02:54	28° ¥ 56′28	
min. Earth dist.	-3841 Apr 13 j 09:12	20° m 19'59	4.26145 AU		-3835 Apr 14 j 19:06	0 ° Υ	
direct	-3841 Jun 13 j 00:21	15° m 31'40					
	-3841 Sep 29 j 04:32	0∘ ⊽		conjunction	-3835 Apr 23 j 21:34	2° Y ′04'07	0°-52'-42
evening set	-3841 Oct 16 j 04:53	3° ჲ 50'09		minimum elong	-3835 Apr 23 j 21:37	2° Y 04'09	0°52'43
				max. Earth dist.	-3835 Apr 25 j 10:12	2° Y 24'57	6.17133 AU
conjunction	-3841 Oct 28 j 18:39	6° ≏ 44'02	0°47'48	morning rise	-3835 May 07 j 16:09	5° Y 11′33	
minimum elong	-3841 Oct 28 j 18:42	6° ≏ 44'04	0°47'46	retrograde	-3835 Sep 10 j 13:37	23° Y 46'54	
max. Earth dist.	-3841 Oct 27 j 12:40	6° £ 26'42	6.20451 AU	opposition	-3835 Nov 08 j 23:28	18° Ƴ 44'54	0°-47'-59
morning rise	-3841 Nov 10 j 08:39	9° ॒ 38′18		min. Earth dist.	-3835 Nov 08 j 07:25	18° Y 50′20	4.22853 AU
retrograde	-3840 Mar 16 j 03:13	28° ≏ 21'51		direct	-3834 Jan 07 j 19:30	13° Ƴ 42′28	
opposition	-3840 May 16 j 04:32	23° ≏ 26'47	0°39'04		-3834 May 05 j 09:53	9° 8	
min. Earth dist.	-3840 May 16 j 19:48	23° ჲ 21'53	4.14659 AU	evening set	-3834 May 15 j 06:55	2° 8 09'48	
direct	-3840 Jul 15 j 17:38	18° ≏ 32'27		•			
	-3840 Oct 15 j 21:26	0°M		conjunction	-3834 May 28 j 22:57	5° 8 11'41	0°-10'00
evening set	-3840 Nov 17 j 02:40	7°M16'14		minimum elong	-3834 May 28 j 22:58	5° 8 11'42	0°09'56
-	·			behind sun begin	-3834 May 28 j 16:19	5° 8 08'01	
conjunction	-3840 Nov 29 j 21:13	10°M16'57	0°02'41	behind sun end	-3834 May 29 j 05:37	5° 8 15'23	
minimum elong	-3840 Nov 29 j 21:14			max. Earth dist.	-3834 May 29 j 10:52		6.28323 AU
behind sun begin	-3840 Nov 29 j 13:11	10°M12'14		morning rise	-3834 Jun 11 j 13:16	8° 8 12'30	
behind sun end	-3840 Nov 30 j 05:17	10°M21'42		Č	-3834 Jul 13 j 11:33		
max. Earth dist.	-3840 Nov 29 j 12:03	10°M11'34	6.09342 AU	asc. node	-3834 Aug 23 j 12:56		
morning rise	-3840 Dec 12 j 17:58			retrograde	-3834 Oct 12 j 05:09		
C	-3840 Dec 19 j 22:57			opposition	-3834 Dec 10 j 20:05		0°18'20
desc. node	-3840 Dec 21 j 05:00	15°M17'25		min. Earth dist.	-3834 Dec 10 j 20:07		4.33010 AU
	-3839 Mar 08 j 02:21	0° ∡ ¹		direct	-		
retrograde	-3839 Apr 21 j 18:17	2° ∡ ¹59'27			-3833 May 30 j 08:50	0°II	
<u> </u>	-3839 Jun 05 j 21:35	30°RM₁		evening set	-3833 Jun 17 j 18:30	3° Ⅱ 56'17	
opposition	-3839 Jun 21 j 12:52	28°M00'37	0°-33'-34	Ü	J		
min. Earth dist.	-3839 Jun 21 j 08:19	28°M02'06	4.04865 AU	conjunction	-3833 Jul 01 j 03:21	6° Ⅱ 51'42	0°34'28
direct	-3839 Aug 19 j 15:51	23°M07'37		minimum elong	-3833 Jul 01 j 03:18		0°34'36
				max. Earth dist.	-	6° ∏ 45'13	6.36707 AU
	-3839 Oct 26 i 10:16	U-X'			-3833 Jun 30 i 15:30	0 114313	
evening set	-3839 Oct 26 j 10:16	0° ҂ 12° ҂ 15'44			-3833 Jun 30 j 15:30		
evening set	-3839 Oct 26 j 10:16 -3839 Dec 21 j 21:24			morning rise	-3833 Jul 14 j 08:52	9° Ⅱ 45'29	
	-3839 Dec 21 j 21:24	12° ₹ 15'44	0°-44'-52	morning rise retrograde	-3833 Jul 14 j 08:52 -3833 Nov 12 j 00:15	9° Ⅱ 45'29 26° Ⅱ 52'21	
conjunction	-3839 Dec 21 j 21:24 -3838 Jan 03 j 23:03	12° х 15'44 15° х 22'52	0°-44'-52 0°45'02	morning rise retrograde opposition	-3833 Jul 14 j 08:52 -3833 Nov 12 j 00:15 -3832 Jan 11 j 00:28	9°Д45'29 26°Д52'21 21°Д57'53	1°17'00
conjunction minimum elong	-3839 Dec 21 j 21:24 -3838 Jan 03 j 23:03 -3838 Jan 03 j 22:59	12° ₹ 15'44 15° ₹ 22'52 15° ₹ 22'50	0°45'02	morning rise retrograde opposition min. Earth dist.	-3833 Jul 14 j 08:52 -3833 Nov 12 j 00:15 -3832 Jan 11 j 00:28 -3832 Jan 11 j 15:34	9°П45'29 26°П52'21 21°П57'53 21°П52'58	
conjunction minimum elong max. Earth dist.	-3839 Dec 21 j 21:24 -3838 Jan 03 j 23:03 -3838 Jan 03 j 22:59 -3838 Jan 04 j 18:06	12° ₹ 15'44 15° ₹ 22'52 15° ₹ 22'50 15° ₹ 34'15		morning rise retrograde opposition	-3833 Jul 14 j 08:52 -3833 Nov 12 j 00:15 -3832 Jan 11 j 00:28 -3832 Jan 11 j 15:34 -3832 Mar 13 j 04:34	9°П45'29 26°П52'21 21°П57'53 21°П52'58 16°П54'31	1°17'00
conjunction minimum elong	-3839 Dec 21 j 21:24 -3838 Jan 03 j 23:03 -3838 Jan 03 j 22:59 -3838 Jan 04 j 18:06 -3838 Jan 17 j 03:44	12° ₹ 15'44 15° ₹ 22'52 15° ₹ 22'50 15° ₹ 34'15 18° ₹ 31'43	0°45'02	morning rise retrograde opposition min. Earth dist. direct	-3833 Jul 14 j 08:52 -3833 Nov 12 j 00:15 -3832 Jan 11 j 00:28 -3832 Jan 11 j 15:34 -3832 Mar 13 j 04:34 -3832 Jun 26 j 07:34	9°П45'29 26°П52'21 21°П57'53 21°П52'58 16°П54'31 0°©	1°17'00
conjunction minimum elong max. Earth dist. morning rise	-3839 Dec 21 j 21:24 -3838 Jan 03 j 23:03 -3838 Jan 03 j 22:59 -3838 Jan 04 j 18:06 -3838 Jan 17 j 03:44 -3838 Mar 10 j 04:38	12° ₹ 15'44 15° ₹ 22'52 15° ₹ 22'50 15° ₹ 34'15 18° ₹ 31'43 0° ₹	0°45'02	morning rise retrograde opposition min. Earth dist. direct evening set	-3833 Jul 14 j 08:52 -3833 Nov 12 j 00:15 -3832 Jan 11 j 00:28 -3832 Jan 11 j 15:34 -3832 Mar 13 j 04:34 -3832 Jun 26 j 07:34 -3832 Jul 18 j 20:07	9°II45'29 26°II52'21 21°II57'53 21°II52'58 16°II54'31 0°II 4°II58'8	1°17′00 4.39114 AU
conjunction minimum elong max. Earth dist. morning rise retrograde	-3839 Dec 21 j 21:24 -3838 Jan 03 j 23:03 -3838 Jan 03 j 22:59 -3838 Jan 04 j 18:06 -3838 Jan 17 j 03:44 -3838 Mar 10 j 04:38 -3838 May 29 j 05:36	12° ₹ 15'44 15° ₹ 22'52 15° ₹ 22'50 15° ₹ 34'15 18° ₹ 31'43 0° ₹ 8° ₹ 49'50	0°45'02 6.01774 AU	morning rise retrograde opposition min. Earth dist. direct	-3833 Jul 14 j 08:52 -3833 Nov 12 j 00:15 -3832 Jan 11 j 00:28 -3832 Jan 11 j 15:34 -3832 Mar 13 j 04:34 -3832 Jun 26 j 07:34	9°П45'29 26°П52'21 21°П57'53 21°П52'58 16°П54'31 0°©	1°17'00
conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-3839 Dec 21 j 21:24 -3838 Jan 03 j 23:03 -3838 Jan 03 j 22:59 -3838 Jan 04 j 18:06 -3838 Jan 17 j 03:44 -3838 Mar 10 j 04:38 -3838 May 29 j 05:36 -3838 Jul 28 j 11:27	12° 🖈 15'44 15° 🖈 22'52 15° 🖈 32'50 15° 🖈 34'15 18° 🖈 31'43 0° 云 8° 云 49'50 3° 云 47'09	0°45'02 6.01774 AU -1°-36'-7	morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-3833 Jul 14 j 08:52 -3833 Nov 12 j 00:15 -3832 Jan 11 j 00:28 -3832 Jan 11 j 15:34 -3832 Mar 13 j 04:34 -3832 Jun 26 j 07:34 -3832 Jul 18 j 20:07 -3832 Jul 30 j 10:20	9°II45'29 26°II52'21 21°II57'53 21°II52'58 16°II54'31 0°S 4°S46'58 7°S19'00	1°17'00 4.39114 AU 6.39972 AU
conjunction minimum elong max. Earth dist. morning rise retrograde	-3839 Dec 21 j 21:24 -3838 Jan 03 j 23:03 -3838 Jan 03 j 22:59 -3838 Jan 04 j 18:06 -3838 Jan 17 j 03:44 -3838 Mar 10 j 04:38 -3838 May 29 j 05:36 -3838 Jul 28 j 11:27 -3838 Jul 27 j 14:35	12° 🖈 15'44 15° 🖈 22'52 15° 🖈 32'50 15° 🖈 34'15 18° 🛪 31'43 0° 풉 8° 줍 49'50 3° 풉 47'09 3° 풉 54'08	0°45'02 6.01774 AU	morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-3833 Jul 14 j 08:52 -3833 Nov 12 j 00:15 -3832 Jan 11 j 00:28 -3832 Jan 11 j 15:34 -3832 Mar 13 j 04:34 -3832 Jun 26 j 07:34 -3832 Jul 18 j 20:07 -3832 Jul 30 j 10:20 -3832 Jul 31 j 19:29	9°II45'29 26°II52'21 21°II57'53 21°II52'58 16°II54'31 0°S 4°S46'58 7°S19'00	1°17'00 4.39114 AU 6.39972 AU 1°08'07
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-3839 Dec 21 j 21:24 -3838 Jan 03 j 23:03 -3838 Jan 03 j 22:59 -3838 Jan 04 j 18:06 -3838 Jan 17 j 03:44 -3838 Mar 10 j 04:38 -3838 May 29 j 05:36 -3838 Jul 28 j 11:27 -3838 Jul 27 j 14:35 -3838 Aug 29 j 22:58	12° 🖈 15'44 15° 🖈 22'52 15° 🖈 22'50 15° 🖈 34'15 18° 🖈 31'43 0° 舌 8° 舌 49'50 3° 舌 47'09 3° 舌 54'08 30° Rメブ	0°45'02 6.01774 AU -1°-36'-7	morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-3833 Jul 14 j 08:52 -3833 Nov 12 j 00:15 -3832 Jan 11 j 00:28 -3832 Jan 11 j 15:34 -3832 Mar 13 j 04:34 -3832 Jul 26 j 07:34 -3832 Jul 18 j 20:07 -3832 Jul 30 j 10:20 -3832 Jul 31 j 19:29 -3832 Jul 31 j 19:29	9°II45'29 26°II52'21 21°II57'53 21°II52'58 16°II54'31 0°II 4°II6'8 7°II9'00 7°II9'00 7°II0 7°II0	1°17'00 4.39114 AU 6.39972 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-3839 Dec 21 j 21:24 -3838 Jan 03 j 23:03 -3838 Jan 03 j 22:59 -3838 Jan 04 j 18:06 -3838 Jan 17 j 03:44 -3838 Mar 10 j 04:38 -3838 May 29 j 05:36 -3838 Jul 28 j 11:27 -3838 Jul 27 j 14:35 -3838 Aug 29 j 22:58 -3838 Sep 24 j 15:59	12° ₹ 15'44 15° ₹ 22'52 15° ₹ 22'50 15° ₹ 34'15 18° ₹ 31'43 0° ₹ 8° ₹ 49'50 3° ₹ 54'08 30° ₹ ₹ 28° ₹ 53'21	0°45'02 6.01774 AU -1°-36'-7	morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-3833 Jul 14 j 08:52 -3833 Nov 12 j 00:15 -3832 Jan 11 j 00:28 -3832 Jan 11 j 15:34 -3832 Mar 13 j 04:34 -3832 Jun 26 j 07:34 -3832 Jul 18 j 20:07 -3832 Jul 30 j 10:20 -3832 Jul 31 j 19:29 -3832 Jul 31 j 19:26 -3832 Aug 13 j 15:44	9°II45'29 26°II52'21 21°II57'53 21°II52'58 16°II54'31 0°I 4°II46'58 7°II9'00 7°II9'00 7°II07'837'10 7°II08 10°II45'48	1°17'00 4.39114 AU 6.39972 AU 1°08'07
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-3839 Dec 21 j 21:24 -3838 Jan 03 j 23:03 -3838 Jan 03 j 22:59 -3838 Jan 04 j 18:06 -3838 Jan 17 j 03:44 -3838 Mar 10 j 04:38 -3838 May 29 j 05:36 -3838 Jul 28 j 11:27 -3838 Jul 27 j 14:35 -3838 Aug 29 j 22:58	12° 🖈 15'44 15° 🖈 22'52 15° 🖈 32'50 15° 🖈 34'15 18° 🖈 31'43 0° 云 8° 云 49'50 3° 云 47'09 3° 云 54'08 30° R 🏞 28° 🛪 53'21 0° 云	0°45'02 6.01774 AU -1°-36'-7	morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-3833 Jul 14 j 08:52 -3833 Nov 12 j 00:15 -3832 Jan 11 j 00:28 -3832 Jan 11 j 15:34 -3832 Mar 13 j 04:34 -3832 Jul 26 j 07:34 -3832 Jul 18 j 20:07 -3832 Jul 30 j 10:20 -3832 Jul 31 j 19:29 -3832 Jul 31 j 19:29	9°II45'29 26°II52'21 21°II57'53 21°II52'58 16°II54'31 0°S 4°S46'58 7°S19'00 7°S37'10 7°S37'08 10°S25'48 27°S24'46	1°17'00 4.39114 AU 6.39972 AU 1°08'07

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3831 in astronomical counting style is the year 3832 BCE in historical counting style. min. Earth dist. -3831 Feb 11 i 11:47 22°523'49 4.39494 AU min. Earth dist. -3826 Aug 01 j 16:56 9°る08'50 4.00623 AU 4°る06'50 -3831 Apr 14 j 00:46 17°530'46 -3826 Sep 29 j 18:46 direct direct -3831 Jul 24 j 20:23 -3825 Feb 01 j 14:17 23°₹27'18 $0^{\circ}\Omega$ evening set -3831 Aug 19 j 00:22 5°**Ω**22'48 evening set -3825 Feb 15 j 00:09 26°る38'05 -1°-18'-34 max. Earth dist. -3831 Aug 29 j 21:58 7°**Ω**47'20 6.37316 AU conjunction -3825 Feb 15 j 00:07 26°**පි**38'04 minimum elong 1°18'43 -3825 Feb 16 j 18:31 27°る03'14 conjunction -3831 Aug 31 j 16:21 8°**Ω**10′50 1°22'36 max. Earth dist. 6.01461 AU -3831 Aug 31 j 16:21 minimum elong 8°**Ω**10′50 1°22'43 morning rise -3825 Feb 28 j 13:17 29°**る**50'27 -3831 Sep 13 j 05:43 10°**Ω**57'44 morning rise -3825 Mar 01 j 05:31 0°≈ -3831 Oct 01 j 20:43 15°**Ω** -3825 May 12 j 21:19 15°**≈** retrograde -3830 Jan 12 j 15:34 28° **Ω**14'44 retrograde -3825 Jul 10 j 03:06 20°≈02'10 -3825 Sep 07 j 20:39 14°≈56'58 opposition -3830 Mar 14 j 12:16 23°**Ω**23'14 1°58'39 opposition -2°-1'-50 -3825 Sep 06 j 14:27 min. Earth dist. -3830 Mar 15 j 19:07 23°**Ω**13'25 4.34054 AU min. Earth dist. 15°≈07'16 4.04226 AU direct -3830 May 15 j 23:00 18°**Ω**23'48 -3825 Sep 07 j 11:45 15°R≈ -3830 Aug 20 j 07:08 0° m direct -3825 Nov 04 j 22:31 9°≈59'58 evening set -3830 Sep 19 j 01:29 6° m 26'41 -3825 Dec 31 j 17:03 15°≈ max. Earth dist. -3830 Sep 29 j 21:18 8° **m** 53'17 6.29470 AU evening set -3824 Mar 09 j 16:48 29°≈12'29 -3824 Mar 13 j 02:52 0°\ conjunction -3830 Oct 01 j 14:08 9° m 16'25 1°13'39 minimum elong -3830 Oct 01 j 14:10 9° Mp 16'26 1°13'43 conjunction -3824 Mar 23 j 09:00 2°**升**22'57 -1°-16'-38 morning rise -3830 Oct 14 j 01:41 12° m 05'46 minimum elong -3824 Mar 23 j 09:02 2°**升**22'58 1°16'43 -3829 Feb 09 i 05:12 0∘**⊽** max. Earth dist. -3824 Mar 25 i 08:36 2°**)** 50'37 6.08177 AU -3829 Feb 15 i 00:58 0°₽03'11 morning rise -3824 Apr 06 i 02:54 5°**)** 34'09 retrograde -3829 Feb 20 i 20:43 30°R M retrograde -3824 Aug 13 i 01:59 25° ★ 00'59 opposition -3829 Apr 17 j 02:14 25° mp 10'28 1°28'58 min. Earth dist. -3824 Oct 10 j 10:17 20° ₭ 05'20 4.13308 AU -3829 Apr 18 j 04:58 25° m 01'57 -3824 Oct 11 j 12:10 19° ¥ 56'30 -1°-35'-59 min. Earth dist. 4 24237 AU opposition -3829 Jun 17 j 17:44 20° m 13'53 -3824 Dec 09 j 07:18 14° **₭** 56'14 direct direct -3829 Sep 11 j 06:24 -3823 Mar 29 j 03:14 $0^{\circ}\Upsilon$ 0∘ଫ -3829 Oct 20 j 18:56 -3823 Apr 15 j 02:48 3°Y46'20 evening set 8°**£**36'48 evening set max. Earth dist. -3829 Nov 01 j 05:17 11°**2**15'30 6.18561 AU 6°Υ53'12 0°-47'-23 conjunction -3823 Apr 28 j 21:16 -3829 Nov 02 j 09:12 11°**2**31'42 0°42'06 -3823 Apr 28 j 21:19 conjunction minimum elong 6°**Y**53'14 0°47'24 -3823 Apr 30 j 05:31 7°**Υ**11'27 -3829 Nov 02 j 09:15 11°**£**31'44 0°42'04 max. Earth dist. 6.18872 AU minimum elong -3829 Nov 15 j 00:07 14°**£**27'09 -3823 May 12 j 15:43 9°**Υ**59'46 morning rise morning rise -3828 Feb 02 j 18:58 0°M $-3823 \text{ Sep } 15 \text{ j } 00:20 \quad 28^{\circ} \Upsilon 26'25$ retrograde -3828 Mar 21 j 05:34 -3823 Nov 13 j 11:21 23°**Υ**24'55 0°-38'-58 retrograde 3°**™**19'40 opposition -3828 May 08 j 15:41 30°R € -3823 Nov 12 j 21:36 23°**Y**29'34 4.24479 AU min. Earth dist. opposition -3828 May 21 j 07:05 28°**£**24'05 0°29'10 direct -3822 Jan 12 j 12:04 18°**Υ**22'12 min. Earth dist. -3828 May 21 j 18:25 28°**£**20'26 4.12942 AU -3822 Apr 18 j 05:52 0°8 direct -3828 Jul 20 j 14:08 23°**♀**30'02 evening set -3822 May 20 j 00:56 6°**8**45'53 -3828 Sep 25 j 07:25 0°M desc. node -3828 Oct 29 j 19:08 -3822 Jun 02 j 16:20 9°**8**46'54 0°-3'-37 6°M58'37 conjunction -3828 Nov 21 j 23:02 12°ML17'48 -3822 Jun 02 j 16:21 9°**8**46'54 0°03'32 evening set minimum elong -3828 Dec 03 j 09:37 15°M behind sun begin -3822 Jun 02 j 08:08 9°**8**42'22 behind sun end -3822 Jun 03 j 00:34 9°**8**51'26 conjunction -3828 Dec 04 i 18:35 15°M 19'32 0°-4'-29 max. Earth dist. -3822 Jun 03 i 01:31 9°**8**51'57 6.29738 AU minimum elong -3828 Dec 04 i 18:35 15° ML 19'32 0°04'37 morning rise -3822 Jun 16 j 05:30 12°**8**46'40 behind sun begin -3828 Dec 04 i 10:41 15°ML14'52 -3822 Jun 26 j 09:56 15°8 behind sun end -3828 Dec 05 j 02:29 15°M24'12 asc. node -3822 Jul 03 j 17:20 16°**8**33'58 max. Earth dist. -3828 Dec 04 j 14:50 15°ML17'21 6.07963 AU -3822 Oct 01 j 16:52 $0^{\circ}\Pi$ -3828 Dec 17 j 16:19 18° ML22'37 -3822 Oct 16 j 12:45 0°**I**I21′26 morning rise retrograde -3827 Feb 09 j 03:48 -3822 Oct 31 j 07:05 30°R8 0°×7 -3827 Apr 27 j 02:45 opposition -3822 Dec 15 j 04:37 25°**8**23'55 0°27'21 retrograde 8°×709'53 opposition -3827 Jun 26 j 19:10 3°**₹**10'24 0°-43'-49 min. Earth dist. -3822 Dec 15 j 06:51 25°823'10 4.34112 AU -3821 Feb 14 j 12:19 20°**8**20'15 min. Earth dist. -3827 Jun 26 j 12:23 3°**尽**12'37 4.03952 AU direct -3827 Jul 23 j 03:35 30°RML -3821 May 12 j 16:56 $0^{\circ}\Pi$ direct -3827 Aug 24 j 19:10 28°M 17'24 evening set -3821 Jun 22 j 07:26 8°**Ⅲ**22'55 -3827 Sep 26 j 02:14 0°*x*7 -3827 Dec 26 j 23:57 17° ₹27'33 -3821 Jul 05 j 14:54 11°**Ⅱ**17'33 0°40'02 evening set conjunction -3821 Jul 05 j 14:51 11°**Ⅱ**17'31 minimum elong 0°40'11 -3826 Jan 09 j 02:34 20°**√**35'16 0°-50'-45 -3821 Jul 04 j 22:07 11°**Ⅲ**08'21 conjunction max. Earth dist. 6.37394 AU minimum elong -3826 Jan 09 j 02:30 20° ₹35'13 0°50'54 morning rise -3821 Jul 18 j 19:19 14°**Ⅲ**10'34 max. Earth dist. -3826 Jan 10 j 01:36 20° ₹ 49'02 6.01387 AU -3821 Oct 19 j 01:23 0 \circ \odot morning rise -3826 Jan 22 j 08:24 23°**х** 44'44 retrograde -3821 Nov 16 j 07:49 1°9515'15 -3826 Feb 18 j 10:48 0°ಕ -3821 Dec 14 j 13:46 30°RⅡ -3826 Jun 03 j 11:32 14°る04'05 -3820 Jan 15 j 08:48 26° **∏**21'13 1°23'40 retrograde opposition -3826 Aug 02 j 16:30 9°**ට**00'55 -1°-42'-27 min. Earth dist. -3820 Jan 16 j 02:34 26° **1**15′26 4.39375 AU opposition

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3820 in astronomical counting style is the year 3821 BCE in historical counting style. opposition direct -3820 Mar 17 j 15:51 21°**Ⅲ**17'57 -3815 Jul 01 j 22:25 8°**∡**14'48 0°-53'-29 -3820 Jun 08 j 07:34 -3815 Jul 01 j 12:24 8°**₰**18'07 000 min. Earth dist. 4.03448 AU -3815 Aug 29 j 17:54 3°**х** 21′49 -3820 Jul 23 j 05:32 evening set 9°9310'18 direct -3820 Aug 03 j 17:53 11°5541'26 -3814 Jan 01 j 00:01 22° ₹32'58 max. Earth dist. 6.39774 AU evening set -3820 Aug 05 j 03:54 12°500'06 1°11'26 -3814 Jan 14 j 03:29 25° **₹** 41'04 conjunction conjunction 0°-56'-3 -3820 Aug 05 j 03:51 -3814 Jan 14 j 03:25 25° **₹** 41'02 minimum elong 12°900'05 1°11'35 minimum elong 0°56'13 -3820 Aug 17 j 22:51 -3814 Jan 15 j 05:11 25°**尽** 56'25 morning rise 14°5548'20 max. Earth dist. 6.01322 AU -3814 Jan 27 j 10:20 28°**尽** 50'59 -3820 Nov 11 j 20:29 $0^{\circ}\Omega$ morning rise 1°**Ω**49′00 retrograde -3820 Dec 16 j 06:29 -3814 Feb 01 j 07:15 0°ಕ -3819 Jan 19 j 23:04 30° Rூ retrograde -3814 Jun 08 j 14:09 19°**정**10'28 -3814 Aug 07 j 17:49 14°る06'52 opposition -3819 Feb 14 j 18:43 26°957'09 1°56'14 opposition -1°-47'-46 min. Earth dist. -3819 Feb 15 j 22:35 26°5548'14 4.38881 AU min. Earth dist. -3814 Aug 06 j 17:02 14°쥥15'13 4.01012 AU direct -3819 Apr 18 j 10:33 21°955'38 direct -3814 Oct 04 j 19:57 9°る12'25 -3819 Jul 06 j 10:47 $0^{\circ}\Omega$ evening set -3813 Feb 06 j 16:22 28°₹31'46 evening set -3819 Aug 23 j 09:09 9°**Ω**49'19 -3813 Feb 12 j 21:54 max. Earth dist. -3819 Sep 03 j 04:46 12°**Ω**13'14 6.36328 AU conjunction -3813 Feb 20 j 03:16 1°≈42'35 -1°-20'-8 conjunction -3819 Sep 05 j 00:16 $12^{\circ}\Omega$ 37'26 $1^{\circ}22'46$ minimum elong -3813 Feb 20 j 03:15 1°≈42'35 1°20'17 minimum elong -3819 Sep 05 j 00:16 $12^{\circ}\Omega$ 37'26 $1^{\circ}22'54$ max. Earth dist. -3813 Feb 22 j 00:15 2°≈09'13 6.02254 AU -3819 Sep 15 j 16:52 $15^{\circ}\Omega$ morning rise -3813 Mar 05 j 17:03 4°≈54'52 morning rise -3819 Sep 17 j 13:12 $15^{\circ}\Omega$ 24'32 -3813 Apr 20 i 06:28 15°≈ -3819 Dec 05 i 03:11 0° m retrograde -3813 Jul 15 j 01:16 25°≈01'32 retrograde -3818 Jan 17 i 07:08 2° m 46'33 min. Earth dist. -3813 Sep 11 j 11:23 20°≈06'26 4.05346 AU -3818 Mar 02 j 04:22 30°R, € Ω opposition -3813 Sep 12 j 17:00 19°≈56'20 -2°00'-46 -3818 Mar 19 j 03:39 $27^{\circ}\Omega55'04$ 1°56'33 -3813 Nov 06 j 13:23 15°R≈ opposition -3818 Mar 20 j 11:09 $27^{\circ}\Omega 45'03$ 4.32765 AU -3813 Nov 09 j 20:01 min. Earth dist. direct 14°≈58'53 -3818 May 20 j 13:23 22°**Ω**56′03 -3813 Nov 13 j 02:50 15°≈ direct -3818 Jul 31 j 23:11 0° mp -3812 Feb 25 j 12:03 0°)(-3818 Sep 23 j 11:36 11° m 01'46 -3812 Mar 14 j 17:53 4° **\(**08'37 evening set evening set -3818 Oct 04 j 09:05 13° m 29'49 max. Earth dist. 6.28003 AU -3812 Mar 28 j 10:29 7°**)** 18'43 -1°-14'-1 conjunction -3818 Oct 06 j 00:20 13° m 52'06 1°10'28 conjunction -3812 Mar 28 j 10:32 7° **★**18'45 1°14'05 minimum elong -3818 Oct 06 j 00:23 13° M 52'08 1°10'30 -3812 Mar 30 j 07:13 minimum elong max. Earth dist. 7°**){** 44'37 6.09506 AU -3818 Oct 18 j 12:04 16° Mp 42'11 -3812 Apr 11 j 04:55 10° **★**29'29 morning rise morning rise -3818 Dec 24 j 05:10 0°**♀** -3812 Aug 17 j 15:38 29° **★**48'33 retrograde -3817 Feb 19 j 20:32 4°**£**46'48 -3812 Oct 15 j 01:55 24° ¥ 52'48 4.14710 AU retrograde min. Earth dist. -3817 Apr 21 j 23:12 29° m 53'48 1°22'05 opposition -3812 Oct 16 j 02:38 24° ¥44'22 -1°-29'-33 opposition -3817 Apr 21 j 03:44 30°R M direct -3812 Dec 14 j 01:09 19° **€** 43'40 min. Earth dist. -3817 Apr 22 j 23:02 29° Mp 46'12 4.22709 AU -3811 Mar 11 j 07:45 $0^{\circ}\Upsilon$ direct -3817 Jun 22 j 09:36 24° M 57'42 evening set -3811 Apr 19 j 23:56 8°Y30'39 -3817 Aug 20 j 12:58 0°**♀** -3817 Oct 25 j 08:56 13° **2**23'42 -3811 May 03 j 18:28 11°**Y**36'55 0°-41'-54 evening set conjunction -3811 May 03 j 18:31 11°**Υ**36'57 0°41'54 minimum elong -3817 Nov 06 j 23:42 16°**£**19'26 0°36'10 -3811 May 05 j 00:01 11°**Υ**′53'36 6.20266 AU conjunction max. Earth dist. -3817 Nov 06 j 23:45 16° **2**19'28 0°36'08 $-3811 \text{ May } 17 \text{ j } 12:27 \quad 14^{\circ} \Upsilon 42'43$ minimum elong morning rise -3817 Nov 05 j 23:34 16°**2**05'23 6.17123 AU -3811 Aug 06 j 02:34 max. Earth dist. 0°8 morning rise -3817 Nov 19 i 15:21 19°**2**15'50 retrograde -3811 Sep 19 j 11:29 3°**8**02'09 -3816 Jan 08 j 13:51 0°M -3811 Nov 02 i 18:53 30°R**Y** -3816 Mar 26 j 09:14 8°ML15'50 -3811 Nov 17 j 21:45 28°**Υ**'01'13 0°-29'-56 retrograde opposition -3816 May 26 j 08:51 3°ML19'45 0°19'10 min. Earth dist. -3811 Nov 17 j 10:37 28°**Y**04'58 4.25729 AU opposition min. Earth dist. -3816 May 26 j 18:15 3°M16'43 4.11698 AU direct -3810 Jan 17 j 03:05 22° **Y** 58'19 -3810 Mar 29 j 16:53 -3816 Jun 23 j 18:47 30°R ₽ 0°8 direct -3816 Jul 25 j 12:24 28° **2**25'58 asc. node -3810 May 14 j 08:40 9°**8**03'56 -3816 Aug 25 j 21:37 0°M -3810 May 24 j 17:25 11°**8**19'29 evening set -3816 Sep 08 j 13:11 desc. node 1°MJ34'31 -3816 Nov 17 j 01:12 15°M ⋅ conjunction -3810 Jun 07 j 07:59 14°**8**19'45 0°02'49 -3816 Nov 26 j 18:16 17° ML 16'12 -3810 Jun 07 j 07:58 14°**8**19'45 0°02'55 evening set minimum elong -3810 Jun 06 j 23:43 14°**8**15'12 behind sun begin -3816 Dec 09 j 14:41 20°ML18'44 0°-11'-22 -3810 Jun 07 j 16:13 14°**8**24'17 conjunction behind sun end -3810 Jun 07 j 12:50 14°**8**22'24 6.30755 AU minimum elong -3816 Dec 09 j 14:40 20°M 18'44 0°11'30 max. Earth dist. behind sun begin -3816 Dec 09 j 08:47 20°ML15'15 -3810 Jun 10 j 08:44 15°**8** behind sun end -3816 Dec 09 j 20:34 20°M22'12 morning rise -3810 Jun 20 j 20:14 17°**8**18'43 max. Earth dist. -3816 Dec 09 j 14:49 20°ML18'49 6.07031 AU -3810 Aug 24 j 17:15 Π °0 morning rise -3816 Dec 22 j 13:29 23°M22'41 retrograde -3810 Oct 20 j 19:49 4°**Ⅱ**48'55 -3815 Jan 20 j 13:04 -3810 Dec 18 j 12:29 30°R℃ -3815 May 02 j 06:18 13° ₹ 14'50 -3810 Dec 19 j 13:00 29°851'53 0°36'06 retrograde opposition

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3810 in astronomical counting style is the year 3811 BCE in historical counting style. -3810 Dec 19 j 17:13 29°**8**50'30 4.34850 AU direct -3804 Jul 30 j 07:23 3°ML18'16 min. Earth dist. -3809 Feb 18 j 23:59 24°**8**48'10 -3804 Oct 30 j 22:16 15°M direct -3809 Apr 21 j 12:23 0°Π -3804 Dec 01 j 12:50 22°M11'26 evening set -3809 Jun 26 j 19:55 12°**Ⅲ**49'41 evening set -3809 Jul $\,$ 09 j 07:45 $\,$ 15°**Ц**33'30 $\,$ 6.37812 AU max. Earth dist. conjunction -3804 Dec 14 j 10:03 25°ML14'47 0°-18'-9 -3804 Dec 14 j 10:01 25°ML14'46 minimum elong 0°18'17 -3804 Dec 14 j 12:55 25°M16'29 conjunction -3809 Jul 10 j 02:15 15°**Ⅲ**43'38 0°45'19 max. Earth dist. 6.05978 AU -3809 Jul 10 j 02:12 15°**Ц**43'37 minimum elong 0°45'28 morning rise -3804 Dec 27 j 09:57 28°ML19'41 morning rise -3809 Jul 23 j 05:13 18°**Ⅲ**35'55 -3803 Jan 03 j 12:55 0°**∡** -3809 Sep 18 j 22:30 0ಂತಾ retrograde -3803 May 07 j 10:10 18°**尽** 17'28 retrograde -3809 Nov 20 j 15:13 5°939'11 opposition -3803 Jul 07 j 00:55 13°**尽** 16'52 -1°-2'-45 -3803 Jul 06 j 12:47 13°**尽** 20'53 opposition -3808 Jan 19 j 17:33 0°9545'33 1°29'51 min. Earth dist. 4.02709 AU -3803 Sep 03 j 17:52 min. Earth dist. -3808 Jan 20 j 12:43 0°939'21 4.39468 AU direct 8°**×**⁷23'46 -3808 Jan 25 j 14:36 30°R∏ evening set -3802 Jan 06 j 00:12 27°**尽** 37'08 direct -3808 Mar 22 j 02:32 25°**Ⅱ**42'30 -3802 Jan 16 j 00:01 0°궁 -3808 May 16 j 23:19 0 \circ 0 evening set -3808 Jul 27 j 15:19 13°534'50 conjunction -3802 Jan 19 j 04:50 0°る45'52 -1°00'-57 max. Earth dist. -3808 Aug 07 j 23:35 16°504'00 6.39518 AU minimum elong -3802 Jan 19 j 04:46 0°る45'50 1°01'08 max. Earth dist. -3802 Jan 20 j 10:40 1°る03'42 6.00960 AU conjunction -3808 Aug 09 j 12:23 16°524'14 1°14'19 morning rise -3802 Feb 01 j 12:37 3°**る**56'21 minimum elong -3808 Aug 09 j 12:20 16°524'12 1°14'27 retrograde -3802 Jun 13 j 18:24 24°る16'59 morning rise -3808 Aug 22 i 06:26 19°\$12'09 opposition -3802 Aug 12 j 19:11 19°る13'05 -1°-52'-20 -3808 Oct 15 i 05:17 $0^{\circ}\Omega$ min. Earth dist. -3802 Aug 11 i 17:41 19°る21'41 4.01089 AU retrograde -3808 Dec 20 j 17:16 6°**Ω**14'30 direct -3802 Oct 09 j 20:02 14°る18'18 -3807 Feb 19 j 06:14 1°Ω22'46 1°58'17 -3801 Jan 27 j 04:37 opposition 0°≈ min. Earth dist. -3807 Feb 20 j 11:15 -3801 Feb 11 j 20:11 3°≈38'04 1°**Ω**13'29 4.38309 AU evening set -3807 Mar 02 j 04:18 30°R 55 -3807 Apr 22 j 22:38 26°521'29 -3801 Feb 25 i 07:53 6°≈49'03 -1°-21'-7 direct conjunction -3807 Jun 13 j 00:03 0°**Ω** -3801 Feb 25 j 07:52 6°≈49'03 1°21'16 minimum elong -3807 Aug 27 j 17:31 14°**Ω**16'07 -3801 Feb 27 j 04:26 max. Earth dist. 7°≈15'22 6.02729 AU evening set -3801 Mar 10 j 22:42 10°≈01'30 -3807 Aug 31 j 00:47 15°**Ω** morning rise -3807 Sep 07 j 14:07 $16^{\circ}\Omega$ 40'52 6.35475 AU -3801 Apr 01 j 14:42 15°≈ max. Earth dist. -3801 Jul 13 j 12:37 0°)(0°**)**€04'09 -3807 Sep 09 j 08:10 $17^{\circ}\Omega$ 04'19 $1^{\circ}22'28$ -3801 Jul 19 j 22:54 conjunction retrograde -3807 Sep 09 j 08:10 $17^{\circ}\Omega$ 04'19 $1^{\circ}22'35$ -3801 Jul 26 j 09:28 30°R≈ minimum elong -3807 Sep 21 j 20:28 19° **Ω**51'32 -3801 Sep 16 j 08:23 25°≈09'11 4.06169 AU morning rise min. Earth dist. -3807 Nov 10 j 03:48 0° Mp opposition -3801 Sep 17 j 14:27 24°≈58'55 -1°-58'-50 retrograde -3806 Jan 21 j 20:18 7° m 17'56 direct -3801 Nov 14 j 18:17 20°≈01'01 -3806 Mar 23 j 19:05 2° m 26'18 1°53'44 -3800 Feb 07 j 01:36 0°**)**€ opposition min. Earth dist. -3806 Mar 25 j 01:19 2° Mp 16'42 4.31671 AU evening set -3800 Mar 19 j 21:08 9°\(\)09'13 -3806 Apr 12 j 20:32 30°R**Ω** -3806 May 25 j 01:55 27°**Ω**27'41 direct conjunction -3806 Jul 05 j 20:40 0° Mp -3800 Apr 02 j 14:32 12°**升** 19'10 1°10'52 minimum elong -3806 Sep 27 j 21:16 15° m/35'11 -3800 Apr 04 j 10:19 12°¥44'28 6.10618 AU evening set max. Earth dist. -3806 Oct 08 j 19:36 18° Mp 04'13 -3800 Apr 16 j 09:07 15°**米**29'31 max. Earth dist. 6.26743 AU morning rise -3800 Jun 27 i 11:23 conjunction -3806 Oct 10 j 09:50 18° m 26'00 1°06'51 retrograde -3800 Aug 22 i 10:29 4°Υ41'35 minimum elong -3806 Oct 10 j 09:53 18° m 26'01 1°06'52 -3800 Oct 18 i 02:24 30°R € morning rise -3806 Oct 22 j 21:53 21° m 16'42 opposition -3800 Oct 20 i 19:38 29° **)** €37'48 -1°-22'-22 -3806 Dec 02 j 12:24 min. Earth dist. -3800 Oct 19 j 21:04 29° \ 45'29 4.15972 AU 0∘ଫ -3805 Feb 24 j 17:20 direct -3800 Dec 18 j 22:21 24° ¥ 36'47 retrograde 9°<u>₽</u>27'48 -3805 Apr 26 j 19:21 4°**2**34'25 1°14'41 -3799 Feb 17 j 11:27 $0^{\circ}\Upsilon$ opposition min. Earth dist. 4°**£**27'05 4.21326 AU -3799 Apr 24 j 23:48 13°**Y**21'04 -3805 Apr 27 j 18:20 evening set -3805 Jun 12 j 00:17 30°R M direct -3805 Jun 27 j 02:50 29° m 38'37 conjunction -3799 May 08 j 18:10 16°**Υ**′26'44 0°-36'00 -3805 Jul 12 j 04:02 0∘ಹ minimum elong -3799 May 08 j 18:13 16° Υ 26'46 0° 35'58 -3799 May 09 j 21:04 16°**Υ**41'53 -3805 Oct 29 j 21:58 18°**£**07'16 6.21596 AU evening set max. Earth dist. -3799 May 22 j 11:45 19° **Y**31'48 morning rise -3805 Nov 11 j 13:26 21°**£**03'52 0°30'03 -3799 Jul 11 j 20:48 conjunction 0°8 minimum elong -3805 Nov 11 j 13:28 21°**£**03'53 0°30'00 retrograde -3799 Sep 23 j 23:04 7°**8**44'12 max. Earth dist. -3805 Nov 10 j 16:18 20°**£**51'32 6.15745 AU opposition -3799 Nov 22 j 10:35 2°**8**43'50 0°-20'-29 morning rise -3805 Nov 24 j 05:51 24°**Ω**01'12 min. Earth dist. -3799 Nov 22 j 00:26 2°**8**47'14 4.27033 AU -3805 Dec 20 j 17:51 0°M -3799 Dec 13 j 23:46 30°R**Y** retrograde -3804 Mar 31 j 09:22 13°ML08'24 direct -3798 Jan 21 j 19:17 27°**Υ**40'48 opposition -3804 May 31 j 09:08 8°M11'49 0°09'04 -3798 Mar 02 j 03:16 0° 8 min. Earth dist. -3804 May 31 j 15:41 8°ML09'41 -3798 Mar 23 j 11:03 2°852'32 4.10431 AU asc. node

-3804 Jul 19 j 18:42

desc. node

3°M29'08

-3798 May 24 j 23:59 15°**8**

Attention, astronomical year style is used: The year -3798 in astronomical counting style is the year 3799 BCE in historical counting style. -3798 May 29 j 12:30 15°**8**59'16 -3792 Feb 21 i 08:46 15°M evening set -3792 Apr 05 j 06:29 17° ML 52'42 retrograde -3798 Jun 12 j 02:04 18° **8**58'39 0°09'16 -3792 May 19 j 17:08 15°RML conjunction -3798 Jun 12 j 02:03 18°**8**58'38 0°09'22 -3792 Jun 01 j 01:41 13°M27'56 desc. node minimum elong -3798 Jun 11 j 19:12 18°**8**54'52 behind sun begin -3792 Jun 05 j 05:34 12°M 55'34 opposition 0°00'-45 -3792 Jun 05 j 10:25 12°M 53'59 -3798 Jun 12 j 08:54 19°**8**02'24 behind sun end min. Earth dist. 4.09097 AU -3798 Jun 12 j 04:05 18°**8**59'45 6.31977 AU 8°ML02'06 max. Earth dist. direct -3792 Aug 04 j 00:01 -3798 Jun 25 j 13:09 21°**8**56'37 -3792 Oct 11 j 18:31 15°M morning rise 26° M $_{5}8'54$ -3798 Aug 03 j 02:53 $0^{\circ}\Pi$ evening set -3792 Dec 06 j 04:13 retrograde -3798 Oct 25 j 06:21 9°**Ⅱ**21'33 -3792 Dec 18 j 21:07 0°×7 4°**Ⅱ**25′07 opposition -3798 Dec 23 j 23:34 0°44'48 -3792 Dec 19 j 02:33 0°**∡**°03′14 min. Earth dist. -3798 Dec 24 j 06:00 4°**Д**23'00 4.35926 AU conjunction 0°-24'-34 -3792 Dec 19 j 02:31 -3797 Feb 03 j 04:43 30°R8 minimum elong 0°**∡**°03′12 0°24'42 direct -3797 Feb 23 j 14:56 29°**8**21'30 max. Earth dist. -3792 Dec 19 j 09:07 0°**х¹**07′08 6.04743 AU -3797 Mar 16 j 04:47 $0^{\circ}II$ morning rise -3791 Jan 01 j 03:27 3°**₹**09'08 evening set -3797 Jul 01 j 09:39 17°**Ⅲ**20'28 retrograde -3791 May 12 j 12:38 23°**尽** 13'12 min. Earth dist. -3791 Jul 11 j 10:43 18° ₹ 16'35 4.01717 AU conjunction -3797 Jul 14 j 14:37 20°**Ⅱ**13'32 0°50'25 opposition -3791 Jul 12 j 00:02 18°**√**12'10 -1°-11'-17 minimum elong -3797 Jul 14 j 14:34 20° **II**13'30 0°50'35 direct -3791 Sep 08 j 13:31 13°**∡**18'56 max. Earth dist. -3797 Jul 13 j 17:31 20°**Ⅲ**01'59 6.38661 AU -3791 Dec 30 j 21:53 0°정 morning rise -3797 Jul 27 j 16:16 23°**Ⅲ**04'55 evening set -3790 Jan 10 j 22:30 2°る35'54 -3797 Aug 29 i 17:46 0ಂತಾ retrograde -3797 Nov 24 i 22:55 10°505'28 conjunction -3790 Jan 24 i 04:04 5°**ප්**45'23 -1°-5'-15 opposition -3796 Jan 24 i 03:26 5°9512'10 1°35'31 minimum elong -3790 Jan 24 i 04:00 5°₹45'21 1°05'25 min. Earth dist. -3796 Jan 24 j 23:33 5°**©**05'39 4.40071 AU max. Earth dist. -3790 Jan 25 j 10:54 6°**る**03'48 6.00283 AU -3796 Mar 26 j 14:08 0°909'18 -3790 Feb 06 j 13:10 8°る56'41 direct morning rise evening set -3796 Aug 01 j 00:29 17°559'42 -3790 Jun 18 j 18:51 29°る19'38 retrograde -3796 Aug 12 j 07:55 20°528'24 -3790 Aug 17 j 18:30 24°♂15'23 -1°-55'-55 max. Earth dist. 6.39824 AU opposition -3790 Aug 16 j 15:11 24°る24'38 4.00831 AU min. Earth dist. -3796 Aug 13 j 20:25 20°5548'28 1°16'46 -3790 Oct 14 j 17:10 19°る20'14 conjunction direct -3796 Aug 13 j 20:22 20°548'27 -3789 Jan 09 j 06:39 1°16'55 minimum elong 0°≈ -3796 Aug 26 j 13:11 23°535'46 -3789 Feb 16 j 22:53 8°**≈**41'43 morning rise evening set -3796 Sep 25 j 21:01 0° Ω -3796 Dec 25 j 01:32 $10^{\circ}\Omega$ 38'10 -3789 Mar 02 j 11:45 11°≈53'07 -1°-21'-25 retrograde conjunction -3795 Feb 23 j 16:52 $5^{\circ}\Omega$ 46'34 1° 59'35 -3789 Mar 02 j 11:46 11°≈53'07 1°21'33 opposition minimum elong -3795 Feb 24 j 22:21 5°**Ω**37'10 4.38301 AU -3789 Mar 04 j 10:17 12°≈20'35 6.02921 AU min. Earth dist. max. Earth dist. -3795 Apr 27 j 09:36 0°**Ω**45'39 -3789 Mar 15 j 17:23 15°≈ direct -3795 Aug 15 j 05:06 $15^{\circ}\Omega$ morning rise -3789 Mar 16 j 03:19 15°≈05'48 evening set -3795 Sep 01 j 00:09 18°**Ω**39'20 -3789 May 27 j 10:53 0°**)**€ max. Earth dist. -3795 Sep 11 j 18:28 21°**Ω**03'03 6.35133 AU retrograde -3789 Jul 24 j 22:36 5°**)**€05'20 min. Earth dist. -3789 Sep 21 j 06:18 0° **∺** 10'04 4.06782 AU -3795 Sep 13 j 13:58 21°Ω27'20 1°21'40 -3789 Sep 22 j 11:25 0° **★** 00'06 -1°-55'-59 conjunction opposition -3795 Sep 13 j 13:59 21° Ω 27'21 1°21'46 -3789 Sep 22 j 11:44 30°R≈ minimum elong -3795 Sep 26 j 01:58 24° **Ω**14'32 -3789 Nov 19 j 17:51 25°≈01'44 morning rise direct -3795 Oct 22 j 18:20 -3788 Jan 15 j 15:26 0°**米** -3794 Jan 26 j 08:32 11° m 43'53 -3788 Mar 25 j 00:18 14° ¥ 08'53 retrograde evening set opposition -3794 Mar 28 i 08:06 6° m 52'04 1°50'14 -3788 Apr 07 j 18:13 17° **★** 18'37 -1°-7'-3 min. Earth dist. -3794 Mar 29 i 14:23 6° m 42'26 4.30997 AU conjunction direct -3794 May 29 j 13:23 1° m 53'44 minimum elong -3788 Apr 07 j 18:16 17° ¥ 18'39 1°07'06 evening set -3794 Oct 02 j 03:35 20° m 01'48 max. Earth dist. -3788 Apr 09 i 13:43 17° \ \ 43'40 6.11610 AU 6.25800 AU max. Earth dist. -3794 Oct 13 j 04:06 22° m 32'19 -3788 Apr 21 j 13:12 20° **★**28'41 morning rise -3788 Jun 04 j 16:04 $0^{\circ}\Upsilon$ -3794 Oct 14 j 16:23 22° m 53'03 1°02'55 -3788 Aug 27 j 02:36 9°Y33'40 conjunction retrograde -3788 Oct 25 j 12:05 4°**Υ**'30'11 -1°-14'-35 minimum elong -3794 Oct 14 j 16:26 22° m 53'04 1°02'57 opposition morning rise -3794 Oct 27 j 04:34 25° m 44'15 min. Earth dist. -3788 Oct 24 j 13:35 4°**Υ**37'51 4.17228 AU -3794 Nov 15 j 07:03 0∘<u>ರ</u> -3788 Dec 06 j 01:34 30°R € retrograde -3793 Mar 01 j 09:01 14°**♀**00'56 direct -3788 Dec 23 j 17:33 29°**米**28'46 -3793 May 01 j 11:55 9°**♀**07'12 1°07'02 -3787 Jan 10 j 14:57 $0^{\circ}\Upsilon$ opposition -3793 May 02 j 09:30 9°**₽**00'19 4.20157 AU -3787 Apr 29 j 23:23 18°**Υ**10'03 min. Earth dist. evening set -3793 Jul 01 j 15:15 4°**£**11'44 direct -3793 Nov 03 j 07:30 22°**♀**42'35 -3787 May 13 j 17:22 21°**Υ** 14'58 0°-29'-50 evening set conjunction minimum elong -3787 May 13 j 17:25 21°**Υ**15'00 0°29'47 conjunction -3793 Nov 15 j 23:24 25°**2**39'57 0°23'56 max. Earth dist. $-3787 \text{ May } 14 \text{ j } 17:01 \quad 21^{\circ} \Upsilon 28'15$ 6.23021 AU minimum elong -3793 Nov 15 j 23:26 25°**2**39'58 0°23'52 morning rise -3787 May 27 j 10:26 24°**Υ**19'10 max. Earth dist. -3793 Nov 15 j 03:13 25°**£**28'08 6.14451 AU -3787 Jun 22 j 15:05 0°8 -3793 Nov 28 j 16:46 28°**△**38'14 -3787 Sep 28 j 12:05 12°**8**24'00 morning rise retrograde -3793 Dec 04 j 14:01 -3787 Nov 26 j 23:06 7°\&24'05 0°-10'-55 opposition

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3787 in astronomical counting style is the year 3788 BCE in historical counting style. min. Earth dist. -3787 Nov 26 j 15:37 7°**と**26'35 4.28457 AU conjunction -3781 Nov 20 i 15:36 0°M30'36 0°17'21 minimum elong direct -3786 Jan 26 j 13:14 2°820'48 -3781 Nov 20 j 15:38 0°M230'37 0°17'16 -3786 Jan 30 j 11:52 2°**8**22'18 -3781 Nov 19 j 23:43 0°M21'17 6.12758 AU asc. node max. Earth dist. -3781 Dec 03 j 09:48 -3786 May 07 j 23:51 15°**8** 3°M30'03 morning rise -3786 Jun 03 j 06:04 20°**8**35'41 -3780 Jan 25 j 20:12 15° ML evening set -3780 Apr 10 j 11:28 22°ML53'04 retrograde -3786 Jun 16 j 18:41 23°**8**34'06 0°15'37 -3780 Apr 10 j 20:16 22°ML53'04 conjunction desc. node -3786 Jun 16 j 18:40 23°**8**34'05 -3780 Jun 10 j 08:32 17°ML55'31 0°-11'-10 minimum elong 0°15'45 opposition -3786 Jun 16 j 17:52 23°**8**33'39 min. Earth dist. -3780 Jun 10 j 11:15 17°ML54'38 4.07608 AU behind sun begin -3780 Jul 04 j 11:48 15°RM behind sun end -3786 Jun 16 j 19:27 23°**8**34'31 max. Earth dist. -3786 Jun 16 j 18:27 23°**8**33'58 6.33261 AU direct -3780 Aug 08 j 22:35 13°ML02'18 -3786 Jun 30 j 04:29 26°**8**31'02 -3780 Sep 12 j 21:11 morning rise 15°M -3786 Jul 16 j 08:00 -3780 Dec 02 j 09:13 $\Pi^{\circ}0$ 0°×7 retrograde -3786 Oct 29 j 13:18 13°**Д**50'35 evening set -3780 Dec 11 j 02:37 2°**х**¹03′13 opposition -3786 Dec 28 j 09:11 8°**Ⅲ**54'34 0°53'11 min. Earth dist. -3786 Dec 28 j 16:47 8°**П**52'04 4.36958 AU conjunction -3780 Dec 24 j 01:49 5°**₹**08'30 0°-31'-13 direct -3785 Feb 28 j 03:04 3°**Ⅱ**50′56 minimum elong -3780 Dec 24 j 01:46 5°**∡**08′28 0°31'23 evening set -3785 Jul 05 j 21:57 21°**Ⅱ**47'25 max. Earth dist. -3780 Dec 24 j 10:55 5°**х¹**13′56 6.03597 AU max. Earth dist. -3785 Jul 18 j 01:39 24°**Ⅲ**26'34 6.39334 AU morning rise -3779 Jan 06 j 04:04 8°**х** 15′28 retrograde -3779 May 17 j 18:46 28° ₹25'08 conjunction -3785 Jul 19 j 01:29 24° **II** 39'37 0°55'14 opposition -3779 Jul 17 j 05:17 23° ₹ 23'36 -1°-19'-47 minimum elong -3785 Jul 19 j 01:26 24°**Д**39'36 0°55'22 min. Earth dist. -3779 Jul 16 j 12:27 23° ₹29'12 4.01076 AU morning rise -3785 Aug 01 j 01:45 27° **II** 30'10 direct -3779 Sep 13 j 14:44 18° ₹30'17 -3785 Aug 12 i 15:56 0ಂತಾ -3779 Dec 12 j 22:04 0°정 retrograde -3785 Nov 29 j 07:21 14°528'50 evening set -3778 Jan 16 j 02:51 7°る49'20 -3784 Jan 28 j 12:43 9°**©**35'54 opposition 1°40'42 -3784 Jan 29 j 11:14 9°\$28'38 4.40334 AU -3778 Jan 29 j 09:36 10°る59'20 -1°-9'-18 min. Earth dist. conjunction -3784 Mar 31 j 02:07 4°533'15 -3778 Jan 29 j 09:33 10°る59'18 1°09'28 direct minimum elong evening set -3784 Aug 05 j 09:08 22°522'55 -3778 Jan 30 j 20:59 11°る20'28 6.00220 AU max. Earth dist. -3784 Aug 16 j 12:54 24°549'49 -3778 Feb 11 j 19:34 14°る11'03 max. Earth dist. 6.39623 AU morning rise -3778 Apr 29 j 18:25 0°≈ 4°≈33'10 -3784 Aug 18 j 03:58 25°5511'18 1°18'50 -3778 Jun 24 j 00:23 conjunction retrograde -3784 Aug 18 j 03:56 25°511'17 -3778 Aug 19 j 01:03 30°R♂ 1°18'59 minimum elong -3784 Aug 30 j 19:51 27°558'19 -3778 Aug 22 j 21:42 29°₹28'37 -1°-58'-46 morning rise opposition -3784 Sep 09 j 03:47 0°**Ω** -3778 Aug 21 j 17:53 29°중38'03 4.01389 AU min. Earth dist. -3784 Dec 24 j 03:22 15°**Ω** -3778 Oct 19 j 21:08 24° 중33'07 direct -3784 Dec 29 j 11:44 15° Ω 02'43 -3778 Dec 18 j 01:52 0°≈ retrograde -3783 Jan 03 j 19:51 15°R**Ω** evening set -3777 Feb 22 j 05:06 13°≈53'03 opposition -3783 Feb 28 j 04:25 $10^{\circ}\Omega$ 11'11 $2^{\circ}00'21$ -3777 Feb 26 j 23:20 15°≈ min. Earth dist. -3783 Mar 01 j 10:21 $10^{\circ}\Omega$ 01'38 4.37659 AU direct -3783 May 01 j 20:00 5°**Q**10'33 conjunction -3777 Mar 07 j 18:47 17°≈04'19 -1°-21'-10 -3783 Jul 28 j 21:36 15°**Ω** -3777 Mar 07 j 18:48 17°≈04'19 1°21'17 minimum elong -3783 Sep 05 j 07:45 23°**Ω**05'30 max. Earth dist. -3777 Mar 09 j 18:45 17°≈32'31 6.04038 AU evening set max. Earth dist. -3783 Sep 16 j 02:53 25° **Ω**30'01 6.34098 AU -3777 Mar 21 j 11:05 20°≈16'46 morning rise -3777 May 04 j 12:58 -3783 Sep 17 j 21:14 $25^{\circ}\Omega$ 53'44 $1^{\circ}20'26$ -3777 Jul 29 j 19:59 10° **★** 08'51 conjunction retrograde -3783 Sep 17 j 21:15 $25^{\circ}\Omega$ 53'44 $1^{\circ}20$ '31 5°**)** 13′52 4.08349 AU minimum elong min. Earth dist. -3777 Sep 26 i 02:51 $-3783 \text{ Sep } 30 \text{ j } 08:48 \quad 28^{\circ} \Omega 41'13$ 5°**)**€03'43 morning rise opposition -3777 Sep 27 i 08:35 -1°-52'-16 -3783 Oct 06 i 06:58 0° m direct -3777 Nov 24 i 16:59 0°\(\)04'53 retrograde -3782 Jan 30 i 23:55 16° Mp 16'06 evening set -3776 Mar 30 j 03:03 19°**₭** 07'34 opposition -3782 Apr 02 j 00:11 11° mg 24'11 1°46'07 min. Earth dist. -3782 Apr 03 j 06:15 11° Mp 14'38 4.29617 AU -3776 Apr 12 j 21:09 22° ¥ 16'34 -1°-2'-53 conjunction direct -3782 Jun 03 j 02:33 6°M)26'19 -3776 Apr 12 j 21:13 22° **)** 16'37 1°02'56 minimum elong evening set -3782 Oct 06 j 13:39 24° m 37'21 max. Earth dist. -3776 Apr 14 j 13:49 22° \(\mathbf{X}\) 39'54 6.13478 AU max. Earth dist. -3782 Oct 17 j 14:17 27° m 08'33 6.24191 AU morning rise -3776 Apr 26 j 16:11 25°**)** €25'47 $0^{\circ}\Upsilon$ -3776 May 17 j 03:42 -3776 Aug 31 j 17:20 14° **Y**20'49 conjunction -3782 Oct 19 j 02:30 27° m 29'19 0°58'30 retrograde -3782 Oct 19 j 02:34 27° m 29'21 0°58'31 min. Earth dist. -3776 Oct 29 j 06:36 9°**Υ**24'29 4.19182 AU minimum elong -3782 Oct 30 j 01:44 0∘**ত** -3776 Oct 30 j 02:32 9°**Y**17'42 -1°-6'-30 opposition -3782 Oct 31 j 15:20 -3776 Dec 28 j 13:33 4°Υ15'53 morning rise 0°**£**21′26 direct -3775 May 04 j 19:28 22°**Y**51'54 retrograde -3781 Mar 06 j 06:58 18°**♀**46'16 evening set opposition -3781 May 06 j 09:38 13°**⊆**52'09 0°58'38 min. Earth dist. -3781 May 07 j 05:12 13°**2**45'53 4.18415 AU conjunction -3775 May 18 j 13:05 25° Υ 55'50 0° -23'-41

minimum elong

max. Earth dist.

morning rise

-3775 May 18 j 13:07 25°**Y**55'51

-3775 May 19 j 10:34 26° **Y**07'50

-3775 Jun 01 j 05:13 28°**Y**58'51

-3775 Jun 05 j 19:49

0°23'38

6.24910 AU

direct

evening set

-3781 Jul 06 j 08:28

-3781 Nov 07 j 22:45 27°**△**32'08

-3781 Nov 18 j 11:29 0°M

8°**♀**57'02

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, page 12 Attention, astronomical year style is used: The year -3775 in astronomical counting style is the year 3776 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	ne year -3775	in astronomical cou	nting style is the year	3776 BCE in historical of	counting style.	
	-3775 Aug 28 j 21:12	15° ∀		evening set	-3769 Nov 12 j 16:37	2°M27'37	
retrograde	-3775 Oct 02 j 18:46	16° 8 55'08					
	-3775 Nov 06 j 12:25	15° ₹ 8		conjunction	-3769 Nov 25 j 10:10	5° M 27′10	0°10'31
opposition	-3775 Dec 01 j 07:50		0°-1'-39	minimum elong	-3769 Nov 25 j 10:11	5° ™ 27'10	0°10'26
min. Earth dist.	-3775 Dec 01 j 01:59		4.30118 AU	behind sun begin	-3769 Nov 25 j 03:49	5° ™ 23'27	
asc. node	-3775 Dec 11 j 05:42	10° 8 37'13		behind sun end	-3769 Nov 25 j 16:32	5°M30'54	
direct	-3774 Jan 31 j 01:29	6° 8 52'19		max. Earth dist.	-3769 Nov 24 j 21:01	5° ™ 19′26	6.11056 AU
	-3774 Apr 19 j 11:22	15° 8		morning rise	-3769 Dec 08 j 05:36	8°M27'52	
evening set	-3774 Jun 07 j 19:47	25° 8 03'15			-3768 Jan 06 j 00:43	15°M	
				desc. node	-3768 Feb 18 j 21:44		
conjunction	-3774 Jun 21 j 07:07			retrograde	-3768 Apr 15 j 17:05		
minimum elong	-3774 Jun 21 j 07:05			opposition	-3768 Jun 15 j 13:41		0°-21'-42
max. Earth dist.	-3774 Jun 21 j 01:36		6.34555 AU	min. Earth dist.	-3768 Jun 15 j 12:11		4.06297 AU
	-3774 Jun 30 j 08:25	$\Pi^{\circ}0$		direct	-3768 Aug 13 j 22:16		
morning rise	-3774 Jul 04 j 15:46	0° Ⅲ 56'31			-3768 Nov 14 j 16:48	0° ∡	
retrograde	-3774 Nov 02 j 19:17			evening set	-3768 Dec 16 j 03:16	7° ∡ 12'00	
opposition	,	13° Ⅱ 15'43	1°00'59				
min. Earth dist.	-3773 Jan 02 j 02:38	13° Ⅱ 12'03	4.37805 AU	conjunction	-3768 Dec 29 j 03:36		0°-37'-43
direct	-3773 Mar 04 j 13:44	8° Ⅱ 12'04		minimum elong	-3768 Dec 29 j 03:33		0°37'53
evening set	-3773 Jul 10 j 06:33	26° Ⅱ 06'55		max. Earth dist.	-3768 Dec 29 j 18:27		6.02790 AU
max. Earth dist.	-3773 Jul 22 j 06:28	28° Ⅱ 43'59	6.39642 AU	morning rise	-3767 Jan 11 j 06:48		
		_			-3767 Apr 03 j 17:43	0°₹	
conjunction	-3773 Jul 23 j 08:59	28° Ⅱ 58'29	0°59'34	retrograde	-3767 May 23 j 03:06	3° る 39'08	
minimum elong	-3773 Jul 23 j 08:55	28° Ⅱ 58'27	0°59'43		-3767 Jul 11 j 23:10		
	-3773 Jul 28 j 01:22	0°©		opposition	-3767 Jul 22 j 11:16		-1°-27'-41
morning rise	-3773 Aug 05 j 07:55	1°5548'23		min. Earth dist.	-3767 Jul 21 j 16:51		4.00865 AU
retrograde	-3773 Dec 03 j 12:10	18° © 46'43		direct	-3767 Sep 18 j 19:02		
opposition	-3772 Feb 01 j 19:43	13°954'02	1°45'13		-3767 Nov 21 j 16:58	0°ਰ	
min. Earth dist.	-3772 Feb 02 j 19:17	13° © 46'27	4.40119 AU	evening set	-3766 Jan 21 j 08:02	13° 6 02'56	
direct	-3772 Apr 04 j 09:13	8°951'33					
evening set	-3772 Aug 09 j 15:41	26°5542'07		conjunction	-3766 Feb 03 j 15:43		-1°-12'-49
max. Earth dist.	-3772 Aug 20 j 17:01	29° © 08'00	6.38883 AU	minimum elong	-3766 Feb 03 j 15:40		1°12'59
	2552 4 22:00.22	200	1000105	max. Earth dist.	-3766 Feb 05 j 05:56		6.00579 AU
conjunction	-3772 Aug 22 j 09:32			morning rise	-3766 Feb 17 j 02:44		
minimum elong	-3772 Aug 22 j 09:31		1°20'33		-3766 Apr 05 j 18:47	0°≈	
	-3772 Aug 24 j 15:12	0°Ω		retrograde	-3766 Jun 29 j 03:19	9°≈44'12	20001 40
morning rise	-3772 Sep 04 j 00:37	2°Ω17'20		opposition	-3766 Aug 27 j 23:50	4°≈39'27	-2°00'-40
. 1	-3772 Nov 08 j 16:37 -3771 Jan 02 j 22:31			min. Earth dist.	-3766 Aug 26 j 18:19 -3766 Oct 12 j 09:03	4°≈49'27	4.02295 AU
retrograde	•			Ji 4			
opposition	-3771 Mar 01 j 06:16		2°00'27	direct	-3766 Oct 24 j 22:54	29° ⊙ 43′32 0° ≈	
**	-3771 Mar 04 j 15:28	14° Ω 34'11			-3766 Nov 06 j 14:24		
min. Earth dist.	-3771 Mar 05 j 22:55 -3771 May 06 j 06:33	14° Ω 24'10 9° Ω 33'54	4.36447 AU		-3765 Feb 09 j 23:24		
direct	-3771 May 00 j 00.33	9 δ (33 34 15° Ω		evening set	-3765 Feb 27 j 10:22	19 200 32	
evening set	-3771 Sep 09 j 15:21	27° Ω 31'53		conjunction	-3765 Mar 13 j 00:44	2200011150	-1°-20'-19
max. Earth dist.	-3771 Sep 09 j 13.21 -3771 Sep 20 j 09:07	29° Ω 56'14	6.32499 AU	minimum elong	-3765 Mar 13 j 00:45		1°20'25
max. Earm dist.	-3771 Sep 20 j 05:07	0°m)	0.32499 AU	max. Earth dist.	-3765 Mar 14 j 23:50		6.05377 AU
	-5//1 Sep 20 j 15.49	עווי		morning rise	-3765 Mar 26 j 17:38		0.03377 AU
conjunction	-3771 Sep 22 j 04:31	0° mg 20'37	1°18'43	morning risc	-3765 Apr 15 j 21:53	0° ∀	
minimum elong	-3771 Sep 22 j 04:31	0° m) 20'38	1°18'48	retrograde	-3765 Aug 03 j 16:23	15°) 08'08	
morning rise	-3771 Oct 04 j 16:08	3° m) 08'45	1 10 40	min. Earth dist.	-3765 Oct 01 j 00:09	10° H 12'48	4.09960 AU
retrograde	-3770 Feb 04 j 16:33	20° m 51'01		opposition	-3765 Oct 02 j 04:26		-1°-47'-49
opposition	-3770 Apr 06 j 17:20	15° m 58'51	1°41'19	direct	-3765 Nov 29 j 16:53	5° ¥ 03'51	-1 -4/-4/
min. Earth dist.	-3770 Apr 07 j 21:51	15° m 49'46	4.27744 AU	evening set	-3764 Apr 04 j 04:26		
direct	-3770 Apr 07 j 21:31	13 mg 49 40 11° mg 01'21	4.27744 AU	evening set	-3704 Apr 04 J 04.20	24 /(02 13	
evening set	-3770 Oct 11 j 01:10	29° m 16'55		conjunction	-3764 Apr 17 j 22:54	27°¥10'37	0°-58'-21
evening set	-3770 Oct 11 j 01:10	0° ت من الأروع		minimum elong	-3764 Apr 17 j 22:58		0°58'22
max. Earth dist.	-3770 Oct 14 j 04:34	0 <u>=</u> 1° ⊆ 51'09	6.22221 AU	max. Earth dist.	-3764 Apr 19 j 14:37		6.15249 AU
max. Darm dist.	5770 Oct 22 j 00.01	1 -3109	V.22221 AU	max. Dartii dist.	-3764 Apr 30 j 08:11	27 χ33 18 0° Υ	J.1527) AU
conjunction	-3770 Oct 23 j 14:33	2° ഫ 09'53	0°53'38	morning rise	-3764 May 01 j 17:42	0° Υ 18'59	
minimum elong	-3770 Oct 23 j 14:36	2° £ 09'55		retrograde	-3764 Sep 05 j 06:22	19° Υ 04'48	
morning rise	-3770 Nov 05 j 03:51	5° £ 03'05	2 22 20	opposition	-3764 Nov 03 j 15:55	14° Υ 02'14	0°-58'-5
retrograde	-3769 Mar 11 j 08:20	23° ⊆ 37'10		min. Earth dist.	-3764 Nov 02 j 21:29	14° Υ '08'29	4.20938 AU
opposition	-3769 May 11 j 09:54	18° Ω 42'39	0°49'39	direct	-3763 Jan 02 j 06:27	9° Υ 00'11	1.20/JU AU
min. Earth dist.	-3769 May 12 j 03:42	18° ⊆ 42 39	4.16490 AU	evening set	-3763 May 09 j 15:15	27° Υ 32'01	
direct	-3769 Jul 11 j 04:25	13° 2 47′56		croning set	-3763 May 20 j 17:20	0° 8	
	-3769 Nov 02 i 01:46				5,05 may 20 j 17.20	ÿ J	

-3769 Nov 02 j 01:46 0°M

Attention astronom	•		in actronomical ac	unting style is the year	2764 DCE in historical a	auntina atula	_
conjunction	nical year style is used: Tl -3763 May 23 j 08:08	0° 8 35'01		opposition	-3757 May 16 j 09:58		
minimum elong		0° 8 35'02	0°17'21	min. Earth dist.			
2	-3763 May 23 j 08:10	_			-3757 May 17 j 00:07		4.1304 / AU
max. Earth dist.	-3763 May 24 j 00:18 -3763 Jun 05 j 23:38	0° 8 44'01 3° 8 37'04	6.26521 AU	direct	-3757 Jul 15 j 23:12 -3757 Oct 15 j 16:13	0°M	
morning rise	·				·		
	-3763 Aug 01 j 04:34			evening set	-3757 Nov 17 j 10:02	7°M22'24	
retrograde	-3763 Oct 07 j 03:27 -3763 Oct 21 j 16:26			agniumation	2757 Nov. 20 : 04:27	100 m 22140	0°03'43
asc. node	-		0°07'35	conjunction minimum elong	-3757 Nov 30 j 04:27 -3757 Nov 30 j 04:27		0°03'37
opposition min. Earth dist.	-3763 Dec 05 j 17:06 -3763 Dec 05 j 14:23						0 0337
IIIII. Eartii dist.			4.31463 AU	behind sun begin	-3757 Nov 29 j 20:28		
direct	-3763 Dec 16 j 19:11 -3762 Feb 04 j 15:34			behind sun end max. Earth dist.	-3757 Nov 30 j 12:25 -3757 Nov 29 j 20:22		6.09874 AU
direct	3				•	13°M24'25	0.098/4 AU
evening set	-3762 Mar 26 j 17:27 -3762 Jun 12 j 09:39			morning rise	-3757 Dec 13 j 00:43 -3757 Dec 19 j 20:36		
evening set	-3762 Jun 14 j 12:57	0° Ⅱ		desc. node	-3757 Dec 19 j 20:30		
	-3/02 Juli 14 J 12.37	υц		desc. node	-3756 Mar 06 j 21:18	0°×7	
aaniumatian	2762 Jun 25 : 20:01	2° ∏ 28'34	0°27'38	retrograde	•	0 x · 3° x 101′53	
conjunction minimum elong	-3762 Jun 25 j 20:01 -3762 Jun 25 j 19:59	2° I I28'33	0°27'46	retrograde	-3756 Apr 20 j 22:32 -3756 Jun 05 j 09:20	30°RM	
_	-3762 Jun 25 j 12:17	2 П 28 33 2° П 24'19		annagition			09 211 52
max. Earth dist.	-3762 Jul 25 j 12:17	2° П 24 19 5° П 23'31	6.35540 AU	opposition min. Earth dist.	-3756 Jun 20 j 16:56 -3756 Jun 20 j 13:31		0°-31'-53 4.05482 AU
morning rise	3			direct	•		4.03482 AU
retrograde opposition	-3762 Nov 07 j 00:52 -3761 Jan 05 j 23:11	17° ∏ 39'44	1°08'31	direct	-3756 Aug 18 j 22:35 -3756 Oct 25 j 12:15	23 IIL10 04 0° 🔏	
**	-	17 П 3944 17° П 35'38		avanina aat	-3756 Dec 21 j 01:56		
min. Earth dist.	-3761 Jan 06 j 11:43 -3761 Mar 08 j 23:28		4.38386 AU	evening set	-3/36 Dec 21 J 01:36	12° X '13'4/	
direct		12° щ 36 13		agniumation	2755 Ion 02:02:09	150.70005	0°-43'-47
evening set	-3761 Jul 12 j 08:51 -3761 Jul 14 j 16:37	0°930'13		conjunction minimum elong	-3755 Jan 03 j 03:08 -3755 Jan 03 j 03:04		0°43'56
max. Earth dist.	-3761 Jul 26 j 11:15	3°904'34	6.39760 AU	max. Earth dist.	-3755 Jan 03 j 21:22		6.02399 AU
max. Earm dist.	-5/01 Jul 20 J 11.13	3 2904 34	0.39/00 AU		-3755 Jan 16 j 07:28		0.02399 AU
aaniumatian	2761 Iul 27: 17:26	20621111	1°03'39	morning rise	•	0°る	
conjunction minimum elong	-3761 Jul 27 j 17:36	3° 5 21'11 3° 5 21'09	1°03'48	natra ana da	-3755 Mar 09 j 12:21	8° る 45'52	
_	-3761 Jul 27 j 17:33	6°9510'34	1 03 46	retrograde opposition	-3755 May 28 j 05:54 -3755 Jul 27 j 13:40	8 3 43 32 3° 3 43'16	-1°-34'-39
morning rise retrograde	-3761 Aug 09 j 15:26 -3761 Dec 07 j 21:08	23°909'19		min. Earth dist.	-3755 Jul 26 j 16:28	3°る4310	4.00971 AU
opposition	-3760 Feb 06 j 05:00	18°9516'57	1°49'15	iiiii. Eartii tist.	-3755 Aug 28 j 07:56		4.009/1 AU
min. Earth dist.	-3760 Feb 07 j 07:04	18°508'34	4.39791 AU	direct	-3755 Sep 23 j 18:34		
direct	-3760 Apr 08 j 20:29	13°9514'44	4.39791 AU	direct	-3755 Oct 20 j 05:12	0°る	
direct	-3760 Apr 08 j 20:29	13 3 14 44		evening set	-3754 Jan 26 j 10:01		
evening set	-3760 Aug 13 j 23:51	1° Ω 06'21		evening set	-5/54 Jan 20 j 10.01	16 00623	
max. Earth dist.	-3760 Aug 24 j 23:31	3° Ω 31'39	6.38121 AU	conjunction	-3754 Feb 08 j 18:32	210天18445	-1°-15'-39
max. Earth dist.	-5700 Aug 24 j 25.51	3 0 (31 39	0.38121 AU	minimum elong	-3754 Feb 08 j 18:32		
conjunction	-3760 Aug 26 j 16:56	3° Ω 54'34	1°21'36	max. Earth dist.	-3754 Feb 10 j 09:59		
minimum elong	-3760 Aug 26 j 16:55	3° Ω 54'33	1°21'42	morning rise	-3754 Feb 22 j 06:23	21° ろ 30'46	0.01133 AO
morning rise	-3760 Sep 08 j 07:13	6° Ω 41'32	1 21 72	morning risc	-3754 Mar 18 j 01:35	0°≈	
morning 1130	-3760 Oct 18 j 02:53			retrograde	-3754 Jul 04 j 02:21	14°≈46'12	
retrograde	-3759 Jan 07 j 09:41	23° Ω 53'53		opposition	-3754 Sep 01 j 21:52	9° ≈ 41'12	-2°-1'-33
opposition	-3759 Mar 09 j 04:39	19° Ω 02'27	1°59'52	min. Earth dist.	-3754 Aug 31 j 16:28	9°≈51'12	4.03238 AU
min. Earth dist.	-3759 Mar 10 j 11:19	18° Ω 52'41	4.35326 AU	direct	-3754 Oct 29 j 22:47	4°≈44'46	1.03230710
min. Bartii digt.	-3759 Apr 15 j 08:56	15°R Ω	55520110		-3753 Jan 22 j 22:55		
direct	-3759 May 10 j 17:11	14°Ω02'35		evening set	-3753 Mar 04 j 12:01		
	-3759 Jun 05 j 03:42	15° Ω					
	-3759 Sep 04 j 18:16	0° mp				27%0010/21	10 101 52
evening set				conjunction	-3753 Mar 18 i 03:15	Z/ ~~IUZI	-11-18-00
				conjunction minimum elong	-3753 Mar 18 j 03:15		-1°-18'-53 1°19'00
•	-3759 Sep 14 j 00:18	2° m 03'06	6.31122 AU	minimum elong	-3753 Mar 18 j 03:17	27° ≈ 10′22	1°19'00
max. Earth dist.			6.31122 AU	·	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03	27°≈10′22 27°≈38′15	
max. Earth dist.	-3759 Sep 14 j 00:18 -3759 Sep 24 j 19:28	2° m 03'06 4° m 28'45		minimum elong max. Earth dist.	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03 -3753 Mar 30 j 06:32	27°≈10'22 27°≈38'15 0°¥	1°19'00
max. Earth dist.	-3759 Sep 14 j 00:18 -3759 Sep 24 j 19:28 -3759 Sep 26 j 13:12	2° m 03'06 4° m 28'45 4° m 52'18	1°16'33	minimum elong max. Earth dist.	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03 -3753 Mar 30 j 06:32 -3753 Mar 31 j 20:32	27°≈10′22 27°≈38′15 0°¥ 0°¥22′00	1°19'00
max. Earth dist. conjunction minimum elong	-3759 Sep 14 j 00:18 -3759 Sep 24 j 19:28 -3759 Sep 26 j 13:12 -3759 Sep 26 j 13:14	2° m 03'06 4° m 28'45 4° m 52'18 4° m 52'19		minimum elong max. Earth dist. morning rise retrograde	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03 -3753 Mar 30 j 06:32 -3753 Mar 31 j 20:32 -3753 Aug 08 j 09:39	27°≈10′22 27°≈38′15 0° ₩ 0° ₩22′00 19° ₩58′44	1°19'00 6.06624 AU
max. Earth dist. conjunction minimum elong morning rise	-3759 Sep 14 j 00:18 -3759 Sep 24 j 19:28 -3759 Sep 26 j 13:12 -3759 Sep 26 j 13:14 -3759 Oct 09 j 00:44	2° m 03'06 4° m 28'45 4° m 52'18 4° m 52'19 7° m 40'58	1°16'33	minimum elong max. Earth dist.	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03 -3753 Mar 30 j 06:32 -3753 Mar 31 j 20:32 -3753 Aug 08 j 09:39 -3753 Oct 06 j 20:33	27°≈10'22 27°≈38'15 0°¥ 0°¥22'00 19°¥58'44 14°¥53'58	1°19'00
max. Earth dist. conjunction minimum elong	-3759 Sep 14 j 00:18 -3759 Sep 24 j 19:28 -3759 Sep 26 j 13:12 -3759 Sep 26 j 13:14	2° m 03'06 4° m 28'45 4° m 52'18 4° m 52'19	1°16'33	minimum elong max. Earth dist. morning rise retrograde opposition	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03 -3753 Mar 30 j 06:32 -3753 Mar 31 j 20:32 -3753 Aug 08 j 09:39 -3753 Oct 06 j 20:33 -3753 Oct 05 j 17:25	27°≈10′22 27°≈38′15 0° ₩ 0° ₩22′00 19° ₩58′44	1°19'00 6.06624 AU -1°-42'-46
max. Earth dist. conjunction minimum elong morning rise retrograde	-3759 Sep 14 j 00:18 -3759 Sep 24 j 19:28 -3759 Sep 26 j 13:12 -3759 Sep 26 j 13:14 -3759 Oct 09 j 00:44 -3758 Feb 09 j 11:38 -3758 Apr 11 j 12:18	2° m 03'06 4° m 28'45 4° m 52'18 4° m 52'19 7° m 40'58 25° m 30'01	1°16'33 1°16'37	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03 -3753 Mar 30 j 06:32 -3753 Mar 31 j 20:32 -3753 Aug 08 j 09:39 -3753 Oct 06 j 20:33 -3753 Oct 05 j 17:25 -3753 Dec 04 j 11:18	27°≈10'22 27°≈38'15 0°¥ 0°¥22'00 19°¥58'44 14°¥53'58 15°¥03'13	1°19'00 6.06624 AU -1°-42'-46
max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-3759 Sep 14 j 00:18 -3759 Sep 24 j 19:28 -3759 Sep 26 j 13:12 -3759 Sep 26 j 13:14 -3759 Oct 09 j 00:44 -3758 Feb 09 j 11:38 -3758 Apr 11 j 12:18 -3758 Apr 12 j 16:23	2° m 03'06 4° m 28'45 4° m 52'18 4° m 52'19 7° m 40'58 25° m 30'01 20° m 37'41	1°16'33 1°16'37 1°35'50	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03 -3753 Mar 30 j 06:32 -3753 Mar 31 j 20:32 -3753 Aug 08 j 09:39 -3753 Oct 06 j 20:33 -3753 Oct 05 j 17:25 -3753 Dec 04 j 11:18 -3752 Apr 09 j 02:48	27°≈10'22 27°≈38'15 0° ₩ 0° ₩22'00 19° ₩58'44 14° ₩53'58 15° ₩03'13 9° ₩54'15	1°19'00 6.06624 AU -1°-42'-46
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-3759 Sep 14 j 00:18 -3759 Sep 24 j 19:28 -3759 Sep 26 j 13:12 -3759 Sep 26 j 13:14 -3759 Oct 09 j 00:44 -3758 Feb 09 j 11:38 -3758 Apr 11 j 12:18 -3758 Apr 12 j 16:23 -3758 Jun 12 j 08:18	2° m 03'06 4° m 28'45 4° m 52'18 4° m 52'19 7° m 40'58 25° m 30'01 20° m 37'41 20° m 28'45	1°16'33 1°16'37 1°35'50	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03 -3753 Mar 30 j 06:32 -3753 Mar 31 j 20:32 -3753 Aug 08 j 09:39 -3753 Oct 06 j 20:33 -3753 Oct 05 j 17:25 -3753 Dec 04 j 11:18	27°≈10'22 27°≈38'15 0° ₩ 0° ₩22'00 19° ₩58'44 14° ₩53'58 15° ₩03'13 9° ₩54'15 28° ₩49'15	1°19'00 6.06624 AU -1°-42'-46
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-3759 Sep 14 j 00:18 -3759 Sep 24 j 19:28 -3759 Sep 26 j 13:12 -3759 Sep 26 j 13:14 -3759 Oct 09 j 00:44 -3758 Feb 09 j 11:38 -3758 Apr 11 j 12:18 -3758 Apr 12 j 16:23	2° m 03'06 4° m 28'45 4° m 52'18 4° m 52'19 7° m 40'58 25° m 30'01 20° m 37'41 20° m 28'45 15° m 40'39	1°16'33 1°16'37 1°35'50	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03 -3753 Mar 30 j 06:32 -3753 Mar 31 j 20:32 -3753 Aug 08 j 09:39 -3753 Oct 06 j 20:33 -3753 Oct 05 j 17:25 -3753 Dec 04 j 11:18 -3752 Apr 09 j 02:48	27°≈10'22 27°≈38'15 0° ₩ 0° ₩22'00 19° ₩58'44 14° ₩53'58 15° ₩03'13 9° ₩54'15 28° ₩49'15	1°19'00 6.06624 AU -1°-42'-46
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-3759 Sep 14 j 00:18 -3759 Sep 24 j 19:28 -3759 Sep 26 j 13:12 -3759 Sep 26 j 13:14 -3759 Oct 09 j 00:44 -3758 Feb 09 j 11:38 -3758 Apr 12 j 16:23 -3758 Jun 12 j 08:18 -3758 Sep 27 j 20:06	2° m 03'06 4° m 28'45 4° m 52'18 4° m 52'19 7° m 40'58 25° m 30'01 20° m 37'41 20° m 28'45 15° m 40'39 0° €	1°16'33 1°16'37 1°35'50	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03 -3753 Mar 30 j 06:32 -3753 Mar 31 j 20:32 -3753 Aug 08 j 09:39 -3753 Oct 06 j 20:33 -3753 Oct 05 j 17:25 -3753 Dec 04 j 11:18 -3752 Apr 09 j 02:48 -3752 Apr 14 j 07:35	27°≈10'22 27°≈38'15 0°₩ 0°₩22'00 19°₩58'44 14°₩53'58 15°₩03'13 9°₩54'15 28°₩49'15 0°Ψ	1°19'00 6.06624 AU -1°-42'-46 4.11376 AU
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-3759 Sep 14 j 00:18 -3759 Sep 24 j 19:28 -3759 Sep 26 j 13:12 -3759 Sep 26 j 13:14 -3759 Oct 09 j 00:44 -3758 Feb 09 j 11:38 -3758 Apr 11 j 12:18 -3758 Apr 12 j 16:23 -3758 Jun 12 j 08:18 -3758 Sep 27 j 20:06 -3758 Oct 15 j 13:28	2° m 03'06 4° m 28'45 4° m 52'18 4° m 52'19 7° m 40'58 25° m 30'01 20° m 37'41 20° m 28'45 15° m 40'39 0° Ω 3° Ω 59'23	1°16'33 1°16'37 1°35'50 4.26198 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03 -3753 Mar 30 j 06:32 -3753 Mar 31 j 20:32 -3753 Aug 08 j 09:39 -3753 Oct 06 j 20:33 -3753 Oct 05 j 17:25 -3753 Dec 04 j 11:18 -3752 Apr 09 j 02:48 -3752 Apr 14 j 07:35 -3752 Apr 22 j 21:16 -3752 Apr 22 j 21:19	27°≈10'22 27°≈38'15 0° ₩ 0° ₩ 22'00 19° ₩ 58'44 14° ₩ 53'58 15° ₩ 03'13 9° ₩ 54'15 28° ₩ 49'15 0° ❤ 1° ♥ 57'02	1°19'00 6.06624 AU -1°-42'-46 4.11376 AU 0°-53'-33
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-3759 Sep 14 j 00:18 -3759 Sep 24 j 19:28 -3759 Sep 26 j 13:12 -3759 Sep 26 j 13:14 -3759 Oct 09 j 00:44 -3758 Feb 09 j 11:38 -3758 Apr 11 j 12:18 -3758 Apr 12 j 16:23 -3758 Jun 12 j 08:18 -3758 Sep 27 j 20:06 -3758 Oct 15 j 13:28	2° m 03'06 4° m 28'45 4° m 52'18 4° m 52'19 7° m 40'58 25° m 30'01 20° m 37'41 20° m 28'45 15° m 40'39 0° Ω 3° Ω 59'23	1°16'33 1°16'37 1°35'50 4.26198 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03 -3753 Mar 30 j 06:32 -3753 Mar 31 j 20:32 -3753 Aug 08 j 09:39 -3753 Oct 06 j 20:33 -3753 Oct 05 j 17:25 -3753 Dec 04 j 11:18 -3752 Apr 09 j 02:48 -3752 Apr 14 j 07:35	27°≈10'22 27°≈38'15 0° ₩ 0° ₩ 22'00 19° ₩ 58'44 14° ₩ 53'58 15° ₩ 03'13 9° ₩ 54'15 28° ₩ 49'15 0° Ŷ 1° Ŷ 57'02 1° Ŷ 57'04	1°19'00 6.06624 AU -1°-42'-46 4.11376 AU 0°-53'-33 0°53'33
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-3759 Sep 14 j 00:18 -3759 Sep 24 j 19:28 -3759 Sep 26 j 13:12 -3759 Sep 26 j 13:14 -3759 Oct 09 j 00:44 -3758 Feb 09 j 11:38 -3758 Apr 11 j 12:18 -3758 Apr 12 j 16:23 -3758 Jun 12 j 08:18 -3758 Sep 27 j 20:06 -3758 Oct 15 j 13:28 -3758 Oct 26 j 20:25	2° m 03'06 4° m 28'45 4° m 52'18 4° m 52'19 7° m 40'58 25° m 30'01 20° m 37'41 20° m 28'45 15° m 40'39 0° Ω 3° Ω 59'23 6° Ω 35'25	1°16'33 1°16'37 1°35'50 4.26198 AU	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03 -3753 Mar 30 j 06:32 -3753 Mar 31 j 20:32 -3753 Aug 08 j 09:39 -3753 Oct 06 j 20:33 -3753 Oct 05 j 17:25 -3753 Dec 04 j 11:18 -3752 Apr 09 j 02:48 -3752 Apr 14 j 07:35 -3752 Apr 22 j 21:16 -3752 Apr 22 j 21:19 -3752 Apr 24 j 08:37	27°≈10'22 27°≈38'15 0° ₩ 0° ₩ 22'00 19° ₩ 58'44 14° ₩ 53'58 15° ₩ 03'13 9° ₩ 54'15 28° ₩ 49'15 0° Ŷ 1° Ŷ 57'02 1° Ŷ 57'04 2° Ŷ 17'09	1°19'00 6.06624 AU -1°-42'-46 4.11376 AU 0°-53'-33 0°53'33
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-3759 Sep 14 j 00:18 -3759 Sep 24 j 19:28 -3759 Sep 26 j 13:12 -3759 Sep 26 j 13:14 -3759 Oct 09 j 00:44 -3758 Feb 09 j 11:38 -3758 Apr 11 j 12:18 -3758 Apr 12 j 16:23 -3758 Jun 12 j 08:18 -3758 Oct 15 j 13:28 -3758 Oct 26 j 20:25 -3758 Oct 28 j 03:10	2° m 03'06 4° m 28'45 4° m 52'18 4° m 52'19 7° m 40'58 25° m 30'01 20° m 37'41 20° m 28'45 15° m 40'39 0° Ω 3° Ω 59'23 6° Ω 35'25 6° Ω 53'10	1°16'33 1°16'37 1°35'50 4.26198 AU 6.20663 AU 0°48'26	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03 -3753 Mar 30 j 06:32 -3753 Mar 31 j 20:32 -3753 Aug 08 j 09:39 -3753 Oct 06 j 20:33 -3753 Oct 05 j 17:25 -3753 Dec 04 j 11:18 -3752 Apr 09 j 02:48 -3752 Apr 14 j 07:35 -3752 Apr 22 j 21:16 -3752 Apr 22 j 21:19 -3752 Apr 24 j 08:37 -3752 May 06 j 16:07	27°≈10'22 27°≈38'15 0° ₩ 0° ₩ 22'00 19° ₩ 58'44 14° ₩ 53'58 15° ₩ 03'13 9° ₩ 54'15 28° ₩ 49'15 0° Ψ 1° Ψ 57'02 1° Ψ 57'04 2° Ψ 17'09 5° Ψ 04'44	1°19'00 6.06624 AU -1°-42'-46 4.11376 AU 0°-53'-33 0°53'33
max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-3759 Sep 14 j 00:18 -3759 Sep 24 j 19:28 -3759 Sep 26 j 13:12 -3759 Sep 26 j 13:14 -3759 Oct 09 j 00:44 -3758 Feb 09 j 11:38 -3758 Apr 11 j 12:18 -3758 Apr 12 j 16:23 -3758 Jun 12 j 08:18 -3758 Sep 27 j 20:06 -3758 Oct 15 j 13:28 -3758 Oct 26 j 20:25 -3758 Oct 28 j 03:10 -3758 Oct 28 j 03:13	2° m 03'06 4° m 28'45 4° m 52'18 4° m 52'19 7° m 40'58 25° m 30'01 20° m 37'41 20° m 28'45 15° m 40'39 0° Ω 3° Ω 59'23 6° Ω 35'25 6° Ω 53'10 6° Ω 53'10	1°16'33 1°16'37 1°35'50 4.26198 AU 6.20663 AU 0°48'26	minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-3753 Mar 18 j 03:17 -3753 Mar 20 j 03:03 -3753 Mar 30 j 06:32 -3753 Mar 31 j 20:32 -3753 Aug 08 j 09:39 -3753 Oct 06 j 20:33 -3753 Oct 05 j 17:25 -3753 Dec 04 j 11:18 -3752 Apr 09 j 02:48 -3752 Apr 14 j 07:35 -3752 Apr 22 j 21:16 -3752 Apr 22 j 21:19 -3752 Apr 24 j 08:37 -3752 May 06 j 16:07 -3752 Sep 09 j 16:43	27°≈10'22 27°≈38'15 0° ₩ 0° ₩22'00 19° ₩58'44 14° ₩53'58 15° ₩03'13 9° ₩54'15 28° ₩49'15 0° Ψ 1° Ψ57'02 1° Ψ57'04 2° Ψ17'09 5° Ψ04'44 23° Ψ42'45	1°19'00 6.06624 AU -1°-42'-46 4.11376 AU 0°-53'-33 0°53'33 6.16711 AU

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, page 14 Attention, astronomical year style is used: The year -3751 in astronomical counting style is the year 3752 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	ne year -3751	in astronomical cou	inting style is the year	3752 BCE in historical of	counting style.	
direct	-3751 Jan 06 j 21:55	13° Y 38'14		conjunction	-3746 Nov 01 j 15:08	11° ≏ 33'41	0°42'56
	-3751 May 04 j 16:50	9° 8		minimum elong	-3746 Nov 01 j 15:11	11° ≏ 33'43	0°42'55
evening set	-3751 May 14 j 08:43	2° 8 07'12		morning rise	-3746 Nov 14 j 05:47		
					-3745 Feb 02 j 01:36	0°M₊	
conjunction	-3751 May 28 j 01:10	5° 8 09'29	0°-11'-10	retrograde	-3745 Mar 21 j 08:25	3° ™ 17'46	
minimum elong	-3751 May 28 j 01:11	5° 8 09'29	0°11'05		-3745 May 08 j 11:18		
behind sun begin	-3751 May 27 j 19:05	5° 8 06'07		opposition	-3745 May 21 j 09:05		0°30'48
behind sun end	-3751 May 28 j 07:16	5° 8 12'52	< 0.000 t 1.000	min. Earth dist.	-3745 May 21 j 22:00		4.13716 AU
max. Earth dist.	-3751 May 28 j 14:54	5° 8 17'07	6.27724 AU	direct	-3745 Jul 20 j 18:56		
morning rise	-3751 Jun 10 j 15:38	8° 8 10'39			-3745 Sep 25 j 17:13	0°M	
1	-3751 Jul 12 j 16:35	15° 8		desc. node	-3745 Nov 09 j 04:26	9°M13'43	
asc. node	-3751 Sep 01 j 19:11	23° 8 27'40		evening set	-3745 Nov 22 j 02:22		
retrograde	-3751 Oct 11 j 11:03	25° 8 54'11	0017120		-3745 Dec 03 j 20:18	15"116	
opposition min. Earth dist.	-3751 Dec 10 j 01:20	20° 8 55'58	0°16'39 4.32413 AU	conjunction	2745 Dec 04 : 21:24	150 m 14156	00 21 12
	-3751 Dec 10 j 00:35 -3750 Feb 09 j 03:26	15° 8 52'25	4.32413 AU	minimum elong	-3745 Dec 04 j 21:34 -3745 Dec 04 j 21:35		0°03'20
direct	-3750 May 29 j 08:36	0° Ⅱ		behind sun begin	-3745 Dec 04 j 21:33		0 03 20
evening set	-3750 Jun 16 j 22:58	3° П 58'56		behind sun end	-3745 Dec 05 j 05:37		
evening set	-5/30 Juli 10 j 22.36	э шэвэв		max. Earth dist.	-3745 Dec 03 j 05:37		6.08694 AU
conjunction	-3750 Jun 30 j 08:03	6° ∏ 54'43	0°33'23	morning rise	-3745 Dec 04 j 10:27		0.00074 AC
minimum elong	-3750 Jun 30 j 08:00	6° П 54'42		morning rise	-3744 Feb 09 j 19:41	0° ⊼	
max. Earth dist.	-3750 Jun 29 j 19:38		6.36161 AU	retrograde	-3744 Apr 26 j 00:38	8° ∡ 701'20	
morning rise	-3750 Jul 13 j 14:11	9° П 48'57	0.50101710	opposition	-3744 Jun 25 j 18:42	3° ₹ 02'03	0°-41'-47
retrograde	-3750 Nov 11 j 08:11	26° Ⅲ 57'49		min. Earth dist.	-3744 Jun 25 j 12:12	3° ₹ 04'11	4.04576 AU
opposition	-3749 Jan 10 j 07:09	22° Ⅲ 03'13	1°15'38		-3744 Jul 20 j 18:38		
min. Earth dist.	-3749 Jan 10 j 22:10	21° ∏ 58'19		direct	-3744 Aug 23 j 19:06		
direct	-3749 Mar 13 j 10:39	16° Ⅱ 59'49			-3744 Sep 26 j 12:06	0° ∡ ¹	
	-3749 Jun 26 j 01:24	0°€		evening set	-3744 Dec 26 j 00:12	17° ∡ 17'16	
evening set	-3749 Jul 19 j 02:31	4° © 53'35			·		
max. Earth dist.	-3749 Jul 30 j 19:35	7° 5 27'10	6.39692 AU	conjunction	-3743 Jan 08 j 02:20	20° ∡ °24'34	0°-49'-30
				minimum elong	-3743 Jan 08 j 02:16	20° ∡ ¹24'32	0°49'39
conjunction	-3749 Aug 01 j 02:28	7°\$544'06	1°07'21	max. Earth dist.	-3743 Jan 08 j 23:22	20° ₹ 37'08	6.01831 AU
minimum elong	-3749 Aug 01 j 02:25	7° 5 44'04	1°07'31	morning rise	-3743 Jan 21 j 07:44	23° х 33'40	
morning rise	-3749 Aug 13 j 22:57	10° © 32'59			-3743 Feb 18 j 06:35	8°0	
retrograde	-3749 Dec 12 j 04:41	27° © 32'38		retrograde	-3743 Jun 02 j 09:26	13° る 51'24	
opposition	-3748 Feb 10 j 15:00	22°5540'29	1°52'40	opposition	-3743 Aug 01 j 15:12	8° る 48'22	-1°-40'-57
min. Earth dist.	-3748 Feb 11 j 17:07	22° © 32'07	4.39399 AU	min. Earth dist.	-3743 Jul 31 j 16:51	8° る 55'52	4.00808 AU
direct	-3748 Apr 13 j 06:10			direct	-3743 Sep 28 j 19:17	3° る 54'18	
	-3748 Jul 23 j 11:58			evening set	-3742 Jan 31 j 12:24	23° る 14'10	
evening set	-3748 Aug 18 j 08:15	5° Ω 31′03					
max. Earth dist.	-3748 Aug 29 j 05:55	7° Ω 55'38	6.37420 AU	conjunction	-3742 Feb 13 j 22:04		-1°-17'-57
				minimum elong	-3742 Feb 13 j 22:03		1°18'05
conjunction	-3748 Aug 31 j 00:20	8° Ω 19'09	1°22'17	max. Earth dist.	-3742 Feb 15 j 16:33		6.01381 AU
minimum elong	-3748 Aug 31 j 00:19	8° Ω 19'08	1°22'24	morning rise	-3742 Feb 27 j 10:47		
morning rise	-3748 Sep 12 j 14:02	11° Ω 06'08			-3742 Mar 01 j 01:40	0° ≈	
	-3748 Sep 30 j 13:18	15° Ω			-3742 May 13 j 03:29	15° ≈	
retrograde	-3747 Jan 11 j 23:18	28° Ω 22'14	1050122	retrograde	-3742 Jul 09 j 03:19	19°≈49'58	
opposition min. Earth dist.	-3747 Mar 13 j 18:35 -3747 Mar 15 j 02:03	23° \O 30'47 23° \O 20'47	1°58'33 4.34350 AU	opposition	-3742 Sep 04 j 23:57 -3742 Sep 06 j 20:21	15°R ≈ 14° ≈ 44'53	-2°-1'-35
direct	-3747 Mar 15 j 02:03	18° Ω 31'16	4.34330 AU	min. Earth dist.	-3742 Sep 00 j 20:21 -3742 Sep 05 j 14:56	14 ≈44 55 14°≈54'54	4.03880 AU
direct	-3747 May 13 j 07:00 -3747 Aug 19 j 00:41	0°M)		direct	-3742 Sep 03 j 14:30	9°≈48'03	4.03660 AU
evening set	-3747 Aug 19 j 00:41 -3747 Sep 18 j 09:05	6° mp 33'28		direct	-3742 Nov 03 j 21:21 -3742 Dec 31 j 20:44		
max. Earth dist.	-3747 Sep 18 j 05:30	9°100'09	6.29943 AU	evening set	-3741 Mar 09 j 15:11		
max. Earth dist.	5747 Sep 25 J 05.20) II) 00 00	0.27743 710	evening set	-3741 Mar 13 j 19:37	0° ∀	
conjunction	-3747 Sep 30 j 21:53	9° m 23'04	1°13'54		5, 11 14101 15 J 17.57	· /\	
minimum elong	-3747 Sep 30 j 21:55	9° m 23'06	1°13'58	conjunction	-3741 Mar 23 j 07:01	2° 升 12'21	-1°-16'-52
morning rise	-3747 Oct 13 j 09:25	12° m/ 12'15	1 13 00	minimum elong	-3741 Mar 23 j 07:04	2°) 12'23	1°16'58
	-3746 Feb 05 j 09:26	0° ⊡		max. Earth dist.	-3741 Mar 25 j 04:42	2° H 38'57	6.07580 AU
retrograde	-3746 Feb 14 j 04:03	0° ≏ 07'15		morning rise	-3741 Apr 06 j 01:02	5° ∺ 23'51	
5	-3746 Feb 22 j 23:55	30°R, M)		retrograde	-3741 Aug 13 j 02:57		
opposition	-3746 Apr 16 j 06:38		1°29'45	min. Earth dist.	-3741 Oct 10 j 11:53	19°) €58'38	4.12532 AU
min. Earth dist.	-3746 Apr 17 j 08:22	25° m 06'25		opposition	-3741 Oct 11 j 14:18		-1°-36'-57
direct	-3746 Jun 16 j 22:14	20° m 17'58		direct	-3741 Dec 09 j 07:49	14°) 49′28	
	-3746 Sep 10 j 06:01	0∘ ⊽			-3740 Mar 28 j 12:32	$0^{\circ}\mathbf{Y}$	
evening set	-3746 Oct 20 j 01:02	8° ॒ 39'10		evening set	-3740 Apr 14 j 03:19	3° Y 42'03	
max. Earth dist.	-3746 Oct 31 j 11:22	11° ≏ 17'36	6.19303 AU				
				conjunction	-3740 Apr 27 j 22:02	6° Ƴ 49'22	0°-48'-16

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3740 in astronomical counting style is the year 3741 BCE in historical counting style. 6°Y49'24 0°48'16 -3740 Apr 27 j 22:05 conjunction -3735 Oct 05 i 04:01 13° mp 48'42 1°10'52 minimum elong -3740 Apr 29 j 07:38 7°**Y**′08′27 6.18005 AU minimum elong -3735 Oct 05 j 04:04 13° mp 48'43 1°10'54 max. Earth dist. 16° Mp 38'13 -3740 May 11 j 16:33 9°Y56'24 -3735 Oct 17 j 15:41 morning rise morning rise -3740 Sep 14 j 07:03 28°**Y**27'09 -3735 Dec 24 j 01:45 0∘⊽ retrograde -3740 Nov 12 j 16:33 23°**Y**25'34 0°-40'-29 -3734 Feb 18 j 19:59 opposition retrograde 4°**£**37'55 23°**Y**30'19 min. Earth dist. -3740 Nov 12 j 02:29 4.23605 AU -3734 Apr 18 j 23:08 30°R M -3739 Jan 11 j 15:50 18°**Υ**23'01 1°23'12 direct opposition -3734 Apr 20 j 22:24 29° m/44'57 -3739 Apr 17 j 04:37 0° 8 min. Earth dist. -3734 Apr 22 j 00:00 29° m 36'47 4.23884 AU -3739 May 19 j 04:52 evening set 6°**8**49'16 direct -3734 Jun 21 j 11:59 24° m 48'35 -3734 Aug 20 j 15:30 0∘**⊽** conjunction -3739 Jun 01 j 20:31 9°**8**50'45 0°-4'-42 evening set -3734 Oct 24 j 09:18 13°**2**11'11 -3739 Jun 01 j 20:33 minimum elong 9°**8**50'46 0°04'37 -3739 Jun 01 j 12:26 behind sun begin 9°**8**46'17 conjunction -3734 Nov 05 j 23:56 16°**£**06'23 0°37'20 behind sun end -3739 Jun 02 j 04:39 9°**8**55'14 minimum elong -3734 Nov 05 j 23:58 16°**£**06'25 0°37'18 max. Earth dist. -3739 Jun 02 j 06:28 9°**8**56'15 6.28943 AU max. Earth dist. -3734 Nov 04 j 22:02 15°**≙**51'21 6.18157 AU morning rise -3739 Jun 15 j 10:12 12°**8**51'04 morning rise -3734 Nov 18 j 15:12 19°**ഫ**02'12 -3739 Jun 25 j 06:02 15°8 -3733 Jan 08 j 22:10 0°M asc. node -3739 Jul 12 j 06:40 18°**8**36'15 retrograde -3733 Mar 26 j 03:04 7°M57'43 -3739 Sep 28 j 15:50 $0^{\circ}\Pi$ opposition -3733 May 26 j 04:11 3°ML01'49 0°21'20 retrograde -3739 Oct 15 j 20:22 0°**Ⅲ**28'54 min. Earth dist. -3733 May 26 j 14:49 2°M58'23 4.12498 AU -3739 Nov 02 j 00:06 30°R8 -3733 Jun 20 j 12:59 30°R ₽ opposition -3739 Dec 14 j 12:08 25°\(\delta 31'13\) 0°25'50 direct -3733 Jul 25 i 08:59 28°**♀**07'54 min. Earth dist. -3739 Dec 14 j 12:58 25°\(\mathbf{2}\)30'56 4.33496 AU -3733 Aug 28 i 19:28 0°M direct -3738 Feb 13 j 18:03 20°**8**27'37 desc. node -3733 Sep 21 i 04:36 3°ML08'21 -3738 May 11 j 05:41 $0^{\circ}\Pi$ -3733 Nov 18 j 08:45 15°M -3738 Jun 21 j 13:59 8°**Ⅲ**31'47 evening set -3733 Nov 26 j 15:41 16°M 56'15 evening set -3738 Jul 04 j 21:54 11°**II**26'43 0°39'02 -3733 Dec 09 j 11:39 19°M 58'23 conjunction conjunction 0°-9'-45 -3738 Jul 04 j 21:51 11°**Ⅲ**26'42 0°39'11 -3733 Dec 09 j 11:38 19°M 58'22 0°09'53 minimum elong minimum elong -3738 Jul 04 j 08:15 11°**Ⅱ**19'14 -3733 Dec 09 j 05:02 19°M 54'28 max. Earth dist. 6.37061 AU behind sun begin -3738 Jul 18 j 02:33 14°**Ⅲ**20'00 -3733 Dec 09 j 18:15 20°ML02'16 behind sun end morning rise -3733 Dec 09 j 08:32 19°ML56'32 -3738 Oct 16 j 11:35 0°5 max. Earth dist. 6.07512 AU -3738 Nov 15 j 16:11 1°**©**25'35 -3733 Dec 22 j 10:04 23°ML01'57 retrograde morning rise -3738 Dec 15 j 20:53 30°RⅡ -3732 Jan 22 j 00:22 0°**∡**¹ -3737 Jan 14 j 17:03 26°**Ⅲ**31'26 1°22'24 -3732 May 01 j 00:26 12°**尽** 52'14 opposition retrograde -3737 Jan 15 j 09:11 26°**I**I26'11 4.39358 AU -3732 Jun 30 j 16:44 min. Earth dist. opposition 7°**∡**¹52'24 0°-51'-6 -3737 Mar 17 j 23:18 21°**Ⅲ**28'15 direct min. Earth dist. -3732 Jun 30 j 08:48 7°**≯**55'01 4.03535 AU -3737 Jun 07 j 16:52 0 \circ \odot direct -3732 Aug 28 j 14:14 2°**∡**′59′20 evening set -3737 Jul 23 j 13:10 9°**©**20'03 -3732 Dec 30 j 19:41 22° ₹ 10'55 evening set max. Earth dist. -3737 Aug 04 j 02:05 11°951'25 6.40096 AU conjunction -3731 Jan 12 j 23:01 25° **₹** 19'04 0°-54'-40 -3737 Aug 05 j 11:40 12°509'49 1°10'42 -3731 Jan 12 j 22:57 25° **₹**19'02 0°54'51 conjunction minimum elong -3737 Aug 05 j 11:37 12°509'48 max. Earth dist. -3731 Jan 13 j 23:38 25° **₹** 33'47 minimum elong 6.01034 AU -3737 Aug 18 j 07:04 14°558'04 -3731 Jan 26 j 05:28 28° ₹28'59 morning rise morning rise -3737 Nov 10 j 19:47 -3731 Feb 01 j 15:38 $0^{\circ}\Omega$ -3731 Jun 07 j 11:43 18° ප් 50'14 retrograde -3737 Dec 16 j 13:44 1°**Ω**57'05 retrograde -3736 Jan 21 i 13:44 30°RS opposition -3731 Aug 06 i 14:07 13°₹46′52 -1°-46′-19 opposition -3736 Feb 15 i 01:31 27°505'06 1°55'23 min. Earth dist. -3731 Aug 05 j 14:48 13°る54'42 4.00373 AU min. Earth dist. -3736 Feb 16 i 04:56 26°556'19 4.39517 AU direct -3731 Oct 03 i 15:47 8°**る**52'32 direct -3736 Apr 17 i 18:27 22°503'26 -3730 Feb 05 j 13:22 28°る14'38 evening set -3736 Jul 05 j 02:26 -3730 Feb 12 j 23:21 $0^{\circ}\Omega$ -3736 Aug 22 j 15:36 evening set 9°Ω54'44 $-3736 \text{ Sep } 02 \text{ j } 13:38 \quad 12^{\circ} \Omega 19'36$ -3730 Feb 18 j 23:56 1°≈25'48 -1°-19'-34 max. Earth dist. 6.37241 AU conjunction minimum elong -3730 Feb 18 j 23:54 1°≈25'47 1°19'42 -3730 Feb 20 j 18:24 conjunction -3736 Sep 04 j 07:02 $12^{\circ}\Omega 42'34$ $1^{\circ}22'30$ max. Earth dist. 1°**≈**51'00 6.01327 AU minimum elong $-3736 \text{ Sep } 04 \text{ j } 07:01 \quad 12^{\circ} \Omega 42'34$ 1°22'37 morning rise -3730 Mar 04 j 13:48 4°≈38'32 -3736 Sep 14 j 14:49 15°**Ω** -3730 Apr 20 j 08:28 15°≈ -3730 Jul 14 j 00:59 24°**≈**49'51 -3736 Sep 16 j 19:53 $15^{\circ}\Omega$ 29'19 morning rise retrograde -3736 Dec 04 j 02:14 -3730 Sep 10 j 10:58 19°≈54'59 0° m min. Earth dist. 4.04232 AU -3730 Sep 11 j 17:13 19°≈44'39 retrograde -3735 Jan 16 j 08:42 2° Mp 47'28 opposition -2°00'-42 -3735 Mar 01 j 10:53 30°RΩ -3730 Oct 28 j 18:36 15°R≈ opposition -3735 Mar 18 j 06:59 $27^{\circ}\Omega$ 55'56 1° 56'30 direct -3730 Nov 08 j 18:12 14°**≈**47'22 min. Earth dist. -3735 Mar 19 j 13:33 27°**Ω**46'13 4.33877 AU -3730 Nov 19 j 20:01 15°**≈** direct -3735 May 19 j 17:28 22°**Ω**56'47 -3729 Feb 25 j 02:58 0°**)**€ -3735 Jul 31 j 05:14 0° m evening set -3729 Mar 14 j 17:51 4°**)**01'03 -3735 Sep 22 j 15:32 10° m 58'55 evening set -3735 Oct 03 j 11:45 13° m 25'53 6.29207 AU -3729 Mar 28 j 10:36 7°**米** 11'44 -1°-14'-16 max. Earth dist. conjunction

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3729 in astronomical counting style is the year 3730 BCE in historical counting style. -3729 Mar 28 j 10:39 7°**)** 11'46 1°14'20 conjunction $-3724 \text{ Sep } 08 \text{ i } 13:31 \quad 17^{\circ} \Omega 06'41 \quad 1^{\circ}22'17$ minimum elong -3729 Mar 30 j 08:42 7°**₩**38'31 minimum elong -3724 Sep 08 j 13:32 17° Ω 06'41 1°22'24 max. Earth dist. 6.08329 AU -3729 Apr 11 j 04:58 10° **★** 23'03 $-3724 \text{ Sep } 21 \text{ j } 02:03 \quad 19^{\circ} \Omega 53'33$ morning rise morning rise -3724 Nov 09 j 08:13 -3729 Aug 17 j 22:21 29°**米**47'28 retrograde 0° m -3729 Oct 15 j 06:40 24° \times 51'40 4.13580 AU -3723 Jan 20 j 22:35 min. Earth dist. retrograde 7° m 16'07 -3729 Oct 16 j 07:30 24° ¥ 43'12 -1°-30'-26 opposition opposition -3723 Mar 22 j 21:00 2° m 24'29 1°53'52 direct -3729 Dec 14 j 04:42 19°**)** 42'40 min. Earth dist. -3723 Mar 24 j 03:59 2° Mp 14'38 4.32721 AU -3728 Mar 10 j 09:15 $0^{\circ}\Upsilon$ -3723 Apr 11 j 16:07 30°₽£ evening set -3728 Apr 19 j 03:37 8°**Ƴ**33′00 direct -3723 May 24 j 05:40 27°**Ω**25'40 -3723 Jul 05 j 08:03 0° M conjunction -3728 May 02 j 22:19 11°**Υ**39'48 0°-42'-39 evening set -3723 Sep 27 j 00:00 15° m 30'13 -3728 May 02 j 22:22 11°**Υ**39'50 -3723 Oct 07 j 22:16 17° m 58'47 minimum elong 0°42'38 max. Earth dist. 6.27760 AU -3728 May 04 j 05:52 11°**Υ**57'39 max. Earth dist. 6.19270 AU morning rise -3728 May 16 j 16:38 14°**Y**46'10 conjunction -3723 Oct 09 j 12:40 18° m 20'37 1°07'23 -3728 Aug 04 j 13:02 0°8 minimum elong -3723 Oct 09 j 12:43 18° **m** 20'39 1°07'24 retrograde -3728 Sep 18 j 18:47 3°**8**09'31 morning rise -3723 Oct 22 j 00:26 21° Mp 10'50 -3728 Nov 03 j 02:23 30°R**Y** -3723 Dec 02 j 05:36 0∘**⊽** opposition -3728 Nov 17 j 05:35 28°**Y**08'22 0°-31'-12 retrograde -3722 Feb 23 j 14:42 9°**₽**17'46 min. Earth dist. -3728 Nov 16 j 16:17 28°**Y**12'52 4.24958 AU opposition -3722 Apr 25 j 17:34 4°**£**24'32 1°16'00 direct -3727 Jan 16 j 08:28 23°**Y**05'33 min. Earth dist. -3722 Apr 26 j 17:29 4°**£**16'55 4.22236 AU -3727 Mar 28 j 04:29 0°8 -3722 Jun 07 j 17:44 30°R M asc. node -3727 May 21 j 12:40 10°856'02 direct -3722 Jun 26 j 02:12 29° m 28'36 evening set -3727 May 24 j 00:01 11°**8**28'36 -3722 Jul 14 i 10:41 0∘**⊽** -3722 Oct 28 j 22:13 17°**£**55'02 evening set conjunction -3727 Jun 06 j 14:49 14°\(\colon\)29'10 0°01'54 -3727 Jun 06 j 14:49 14°**8**29'10 0°02'00 -3722 Nov 10 j 13:19 20° **2**51'12 0°31'17 minimum elong conjunction -3727 Jun 06 j 06:32 14°**8**24'36 -3722 Nov 10 j 13:21 20°**£**51'14 behind sun begin minimum elong 0°31'14 -3727 Jun 06 j 23:06 14°\&33'44 -3722 Nov 09 j 13:03 20°**△**37'04 6.16453 AU behind sun end max. Earth dist. -3727 Jun 06 j 21:58 14°**8**33'06 6.30272 AU -3722 Nov 23 j 05:34 23°**△**48'09 max Earth dist morning rise -3727 Jun 08 j 22:28 15°**8** -3722 Dec 20 j 18:41 0°M. -3727 Jun 20 j 03:22 17°**8**28'27 -3721 Mar 31 j 05:03 12° ML52'21 retrograde morning rise -3721 May 31 j 05:03 -3727 Aug 22 j 21:36 7°M55'57 0°11'16 $\mathbf{\Pi}^{\circ}0$ opposition -3727 Oct 20 j 06:11 5°**Ⅱ**00'14 min. Earth dist. -3721 May 31 j 13:29 7°ML53'13 4.10859 AU retrograde -3727 Dec 18 j 22:05 0°**Д**03'04 0°34'47 -3721 Jul 30 j 05:27 3°M02'14 opposition direct -3727 Dec 19 j 01:26 -3721 Jul 31 j 22:38 3°ML02'32 min. Earth dist. 0°**Д**01'58 4.34666 AU desc. node -3727 Dec 19 j 07:22 30°R8 -3721 Nov 01 j 02:52 15°M -3721 Dec 01 j 10:59 21°M 54'54 direct -3726 Feb 18 j 08:48 24°**8**59'26 evening set -3726 Apr 19 j 14:36 Π $^{\circ}0$ evening set -3726 Jun 26 j 03:35 13°**Ⅲ**00'48 conjunction -3721 Dec 14 j 08:05 24°ML58'07 0°-16'-36 minimum elong -3721 Dec 14 j 08:04 24°M 58'06 0°16'43 conjunction -3726 Jul 09 j 10:09 15°**Ц**54'49 0°44'27 max. Earth dist. -3721 Dec 14 j 09:37 24°M 59'01 6.06111 AU -3726 Jul 09 j 10:06 15°**Д**54'48 0°44'36 -3721 Dec 27 j 07:33 28°ML02'48 minimum elong morning rise -3726 Jul 08 j 17:08 15°**Ⅱ**45'30 -3720 Jan 04 j 15:29 max. Earth dist. 6.37933 AU -3726 Jul 22 j 13:29 18°**Ⅱ**47'11 -3720 May 06 j 07:25 18° ₹ 00'00 morning rise retrograde -3726 Sep 17 j 04:23 -3720 Jul 05 j 21:07 12° ₹759'44 -1°00'-34 opposition -3726 Nov 19 j 22:56 -3720 Jul 05 j 10:49 13° ₹03'08 4.02545 AU retrograde 5°9549'47 min. Earth dist. opposition -3725 Jan 19 i 01:44 0°955'59 1°28'41 direct -3720 Sep 02 j 14:46 8°**∡**06'41 min. Earth dist. -3725 Jan 19 j 19:30 0°950'13 4.39879 AU evening set -3719 Jan 04 j 22:05 27° ₹ 21'19 -3725 Jan 26 i 07:13 30°R **II** -3719 Jan 15 j 23:56 0°궁 direct -3725 Mar 22 j 10:03 25°**Ⅲ**52'53 -3725 May 16 j 02:24 -3719 Jan 18 i 02:17 0°**궁**30'07 0°-59'-45 000 conjunction -3725 Jul 27 j 22:23 13°543'28 minimum elong -3719 Jan 18 j 02:14 0°**ප**30'05 0°59'55 evening set max. Earth dist. -3725 Aug 08 j 09:28 16°513'53 -3719 Jan 19 j 05:13 0°**ප**46'13 6 40196 AU max. Earth dist. 6.00542 AU morning rise -3719 Jan 31 j 10:01 3°₹40'45 -3725 Aug 09 j 19:46 16°532'43 1°13'40 conjunction retrograde -3719 Jun 12 j 15:59 24°♂03'30 minimum elong -3725 Aug 09 j 19:43 16°532'41 1°13'48 opposition -3719 Aug 11 j 17:47 18°**궁**59'43 -1°-51'-8 morning rise -3725 Aug 22 j 13:53 19°**©**20'25 min. Earth dist. -3719 Aug 10 j 15:55 19°る08'27 4.00486 AU -3725 Oct 14 j 20:06 -3719 Oct 08 j 17:39 14°る05'04 0 $^{\circ}\Omega$ direct retrograde -3725 Dec 20 j 22:03 6°**£**20′08 -3718 Jan 26 j 23:33 0°≈ -3718 Feb 10 j 19:08 opposition -3724 Feb 19 j 11:41 1°**Ω**28'23 1°57'33 evening set 3°**≈**27'04 min. Earth dist. -3724 Feb 20 j 16:07 1°**Ω**19'18 4.39188 AU -3724 Mar 02 j 04:17 30° Rூ conjunction -3718 Feb 24 j 06:49 6°≈38'21 -1°-20'-41 direct -3724 Apr 22 j 04:48 26°927'03 minimum elong -3718 Feb 24 j 06:49 6°≈38'20 1°20'49 -3724 Jun 11 j 14:52 0 $^{\circ}\Omega$ max. Earth dist. -3718 Feb 26 j 04:32 7°≈05'25 6.02048 AU evening set -3724 Aug 26 j 22:57 14°**Ω**18'52 morning rise -3718 Mar 09 j 21:20 9°≈51'02 -3724 Aug 30 j 01:23 15°**Ω** -3718 Apr 01 j 07:06 15°≈ max. Earth dist. -3724 Sep 06 j 18:05 $16^{\circ}\Omega 42'31$ 6.36479 AU -3718 Jul 19 j 02:04 29°≈56'56 retrograde

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3718 in astronomical counting style is the year 3719 BCE in historical counting style. -3718 Sep 15 j 10:47 25°≈01'49 4.05487 AU min. Earth dist. -3712 Feb 25 j 01:45 5°**Ω**37'17 4.38296 AU min. Earth dist. -3718 Sep 16 j 16:28 24°≈51'41 -1°-58'-53 direct -3712 Apr 26 j 12:25 0°**Ω**45'34 opposition -3718 Nov 13 j 20:28 19°≈53'56 $-3712 \text{ Aug } 14 \text{ j } 09:06 \quad 15^{\circ} \Omega$ direct -3717 Feb 06 j 14:36 0°**)**€ -3712 Aug 31 j 05:03 18° **Ω**39'49 evening set -3717 Mar 19 j 21:49 9°**)**€03'52 -3712 Sep 11 j 00:28 21°**Ω**04'04 evening set max. Earth dist. 6.35132 AU -3717 Apr 02 j 15:03 12°**米** 14'01 -1°-11'-10 conjunction conjunction -3712 Sep 12 j 19:15 $21^{\circ}\Omega 27'58$ $1^{\circ}21'37$ -3712 Sep 12 j 19:16 21° Ω 27'58 minimum elong -3717 Apr 02 j 15:06 12°**米** 14'02 1°11'13 minimum elong 1°21'42 -3717 Apr 04 j 12:38 12° **∺**40'22 -3712 Sep 25 j 07:17 $24^{\circ}\Omega$ 15'13 max. Earth dist. 6.10001 AU morning rise -3717 Apr 16 j 09:45 15°**)** 24'41 morning rise -3712 Oct 21 j 22:25 0° M $0^{\circ}\Upsilon$ -3711 Jan 25 j 12:27 11° m 44'09 -3717 Jun 27 j 21:11 retrograde -3717 Aug 22 j 13:35 4°Υ39'25 -3711 Mar 27 j 11:14 retrograde opposition 6° My 52′28 1°50'36 -3717 Oct 17 j 23:39 -3711 Mar 28 j 18:06 30°**Ŗ**₩ min. Earth dist. 6° Mp 42'404.31004 AU opposition -3717 Oct 20 j 23:49 29°**₩**35'25 -1°-23'-22 direct -3711 May 28 j 16:41 1° m 54'05 min. Earth dist. -3717 Oct 19 j 23:15 29° **¥**43'48 4.15484 AU evening set -3711 Oct 01 j 09:13 20° m 02'51 direct -3717 Dec 19 j 00:29 24° **∺** 34'28 max. Earth dist. -3711 Oct 12 j 07:37 22° m 32'14 6.25812 AU -3716 Feb 17 j 19:03 $0^{\circ}\Upsilon$ evening set -3716 Apr 24 j 01:53 13°**Y**19'27 conjunction -3711 Oct 13 j 21:55 22° m 54'07 minimum elong -3711 Oct 13 j 21:58 22° m 54'08 1°03'29 conjunction $-3716 \text{ May } 07 \text{ j } 20:15 \quad 16^{\circ} \Upsilon^{2}5'15 \quad 0^{\circ} -36'-53$ morning rise -3711 Oct 26 j 10:18 25° m 45'21 minimum elong $-3716 \text{ May } 07 \text{ j } 20:18 \quad 16^{\circ} \Upsilon 25'17$ 0°36'51 -3711 Nov 14 j 10:41 max. Earth dist. $-3716 \text{ May } 08 \text{ j } 23:59 \quad 16^{\circ} \Upsilon 40'53$ 6.21255 AU retrograde -3710 Feb 28 i 12:51 14°**2**01'29 morning rise -3716 May 21 j 14:01 19°Y30'31 opposition -3710 Apr 30 i 14:57 9°**£**07'51 1°08'12 -3716 Jul 11 j 01:02 0°8 min. Earth dist. -3710 May 01 j 12:45 9°**₽**00'53 4.20185 AU retrograde -3716 Sep 23 j 05:12 7°**8**44'23 direct -3710 Jun 30 j 18:52 4°**♀**12'18 -3716 Nov 21 j 15:45 2°843'44 0°-22'00 -3710 Nov 02 j 13:09 22°**£**43'48 opposition evening set -3716 Nov 21 j 05:40 2°847'08 4.26818 AU max. Earth dist. -3710 Nov 14 j 09:40 25°**2**29'45 min. Earth dist. 6.14507 AU -3716 Dec 13 j 04:04 30°R℃ -3715 Jan 21 j 00:36 27°**Y**40'39 -3710 Nov 15 j 05:10 25°**△**41'09 direct conjunction 0°24'55 -3715 Mar 01 j 07:35 0°**8** -3710 Nov 15 j 05:11 25°**△**41'10 minimum elong 0°24'50 -3715 Apr 01 j 05:17 4°**8**26'42 morning rise -3710 Nov 27 j 22:12 28°**♀**39'20 asc. node -3715 May 24 j 03:27 15°**8** -3710 Dec 03 j 17:34 0°M -3715 May 28 j 15:17 15°**8**58'57 -3709 Feb 20 j 11:20 15°M⋅ evening set -3709 Apr 05 j 10:07 17°ML52'52 retrograde -3715 Jun 11 j 05:13 18°**8**58'28 0°08'09 -3709 May 19 j 21:18 15°RM conjunction -3715 Jun 11 j 05:12 18°**8**58'27 0°08'15 -3709 Jun 05 j 08:34 12°M 55'59 0°00'53 minimum elong opposition -3715 Jun 10 j 21:56 18°**8**54'28 -3709 Jun 05 j 14:14 12°M-54'09 4.09195 AU behind sun begin min. Earth dist. behind sun end -3715 Jun 11 j 12:27 19°**8**02'26 desc. node -3709 Jun 10 j 03:48 12°M 18'44 max. Earth dist. -3715 Jun 11 j 09:00 19°**8**00'32 6.31860 AU direct -3709 Aug 04 j 04:09 8°ML02'35 morning rise -3715 Jun 24 j 16:31 21°**8**56'35 -3709 Oct 11 j 22:16 15°M -3715 Aug 02 j 06:27 Π °0 evening set -3709 Dec 06 j 09:25 26°M59'30 -3715 Oct 24 j 10:00 9°**Ⅲ**22'01 retrograde -3715 Dec 23 j 04:23 4°**Ⅲ**25'20 0°43'12 -3709 Dec 19 j 07:20 0°**≯**03'40 0°-23'-27 opposition conjunction min. Earth dist. -3715 Dec 23 j 09:30 4°**Д**23'39 4.35873 AU -3709 Dec 19 j 07:18 0°**х**¹03′38 0°23'35 minimum elong -3714 Feb 02 j 10:24 30°R8 -3709 Dec 19 j 01:10 0°**∡**¹ -3714 Feb 22 i 17:56 29°821'37 -3709 Dec 19 i 12:05 direct max. Earth dist. 0°**х** 06′29 6.04869 AU -3714 Mar 15 i 08:07 -3708 Jan 01 i 08:06 $\Pi^{\circ}0$ morning rise 3°**х** 09′25 -3714 Jun 30 j 13:03 17°**Ⅲ**20'19 evening set retrograde -3708 May 11 j 14:18 23° ₹12'30 -3708 Jul 11 j 03:09 18° **₹** 11'36 -1°-9'-43 opposition conjunction -3714 Jul 13 j 18:18 20°**Ⅲ**13'30 0°49'25 min. Earth dist. -3708 Jul 10 i 13:02 18° ₹ 16'17 4.01870 AU -3714 Jul 13 j 18:14 20° **II**13'28 0°49'33 direct -3708 Sep 07 j 16:53 13° ₹ 18'28 minimum elong -3714 Jul 12 j 21:36 20°**Ⅲ**02'10 6.38655 AU -3708 Dec 30 j 03:22 0°궁 max. Earth dist. -3714 Jul 26 j 20:19 23°**Д**05'02 -3707 Jan 10 j 02:08 2°る34'50 morning rise evening set -3714 Aug 28 j 21:55 0ಂತಾ 5°る44'08 -1°-4'-24 retrograde -3714 Nov 24 j 04:23 10°505'39 conjunction -3707 Jan 23 j 07:31 opposition -3713 Jan 23 j 07:45 5°**©**12'15 1°34'17 minimum elong -3707 Jan 23 j 07:27 5°る44'06 1°04'34 min. Earth dist. -3713 Jan 24 j 04:25 5°**©**05'34 4.40077 AU max. Earth dist. -3707 Jan 24 j 15:31 6°**ප**03'16 6.00467 AU -3713 Mar 26 j 18:46 0°909'17 -3707 Feb 05 j 16:05 8°**る**55'11 direct morning rise -3713 Aug 01 j 04:35 17°559'43 -3707 Jun 17 j 22:20 29°る17'24 evening set retrograde -3713 Aug 12 j 11:15 20°\$27'58 6.39824 AU -3707 Aug 16 j 21:53 24° ₹ 13'14 -1°-55'-3 max. Earth dist. opposition -3707 Aug 15 j 19:22 24°중22'12 4.01020 AU min. Earth dist. conjunction -3713 Aug 14 j 00:52 20°548'38 1°16'09 direct -3707 Oct 13 j 21:50 19°る18'14 minimum elong -3713 Aug 14 j 00:50 20°548'37 1°16'17 -3706 Jan 08 j 14:34 0°≈ morning rise -3713 Aug 26 j 18:05 23°536'06 evening set -3706 Feb 16 j 01:00 8°≈38'35 -3713 Sep 26 j 01:26 0 $^{\circ}$ Ω -3713 Dec 25 j 05:49 10° **Ω**38'20 -3706 Mar 01 j 13:28 11°≈49'45 -1°-21'-11 retrograde conjunction -3712 Feb 23 j 20:22 5°**Ω**46'40 1°59'04 -3706 Mar 01 j 13:28 11°≈49'45 1°21'19 opposition minimum elong

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3706 in astronomical counting style is the year 3707 BCE in historical counting style. -3706 Mar 03 j 12:20 12°≈17'23 6.03093 AU -3701 Dec 23 i 19:30 $15^{\circ}\Omega$ max. Earth dist. morning rise -3706 Mar 15 j 04:49 15°≈02'15 -3701 Dec 29 j 16:46 $15^{\circ}\Omega$ 03'16 retrograde -3706 Mar 15 i 00:58 15°≈ -3700 Jan 04 j 13:30 15°R**Ω** -3706 May 26 j 22:00 -3700 Feb $28\,\mathrm{j}\,07{:}47\,10^{\circ}\Omega11'45\,1^{\circ}59'58$ 0°**)**€ opposition -3706 Jul 24 j 00:16 -3700 Feb 29 j 14:36 10°**Ω**01'56 4.37415 AU retrograde 5°**₩**01'27 min. Earth dist. -3706 Sep 20 j 08:11 -3700 Apr 30 j 23:47 min. Earth dist. 0°**₩**06'37 4.06936 AU direct 5°**Ω**11'02 -3700 Jul 27 j 23:34 15°**Ω** opposition -3706 Sep 21 j 14:30 29°≈56'16 -1°-56'-12 -3700 Sep 04 j 13:03 23°**Ω**07'17 -3706 Sep 21 j 03:33 30°R≈ evening set -3700 Sep 15 j 07:02 25°**Ω**31'14 direct -3706 Nov 18 j 20:00 24°≈58'04 max. Earth dist. 6.33899 AU -3705 Jan 15 j 03:37 0°**)**€ evening set -3705 Mar 25 j 01:04 14°**米** 04'05 conjunction -3700 Sep 17 j 02:45 $25^{\circ}\Omega55'43$ 1°20'28 -3700 Sep 17 j 02:47 25°**Ω**55'44 minimum elong 1°20'33 -3705 Apr 07 j 18:37 17°**)** 13'37 -1°-7'-34 -3700 Sep 29 j 14:39 28°**Ω**43'23 conjunction morning rise -3700 Oct 05 j 08:47 minimum elong -3705 Apr 07 j 18:41 17°**米** 13'39 1°07'38 max. Earth dist. -3705 Apr 09 j 13:37 17°**米** 38'23 6.11721 AU retrograde -3699 Jan 30 j 04:07 16° Mp 18'24 morning rise -3705 Apr 21 j 13:28 20°**∺**23'34 opposition -3699 Apr 01 j 03:53 11° **m** 26'30 1°46'36 -3705 Jun 05 j 02:50 $0^{\circ}\Upsilon$ min. Earth dist. -3699 Apr 02 j 09:18 11° Mp 17'09 4.29513 AU retrograde -3705 Aug 27 j 05:52 9°**Y**29'02 direct -3699 Jun 02 j 05:54 6° Mp 28′32 opposition -3705 Oct 25 j 15:14 4°**Y**25′27 -1°-15'-50 evening set -3699 Oct 05 j 19:55 24° mp 40'29 min. Earth dist. -3705 Oct 24 j 17:18 4°**Υ**32'55 4.17284 AU max. Earth dist. -3699 Oct 16 j 22:16 27° Mp 12'37 6.24222 AU -3705 Dec 04 j 21:14 30°R € direct -3705 Dec 23 j 21:11 29° + 24'07 conjunction -3699 Oct 18 i 08:57 27° m 32'30 0°59'06 -3704 Jan 12 j 00:16 $0^{\circ}\Upsilon$ minimum elong -3699 Oct 18 j 09:01 27° m 32'32 0°59'07 evening set -3704 Apr 28 j 23:24 18°**Y**04'35 -3699 Oct 29 i 02:31 0∘**⊽** morning rise -3699 Oct 30 j 21:36 0°**£**24'35 -3704 May 12 j 17:34 21°**Υ**'09'33 0°-30'-55 -3698 Mar 05 j 11:26 18°**£**48'26 conjunction retrograde -3704 May 12 j 17:36 21°**Υ**'09'35 0°30'53 -3698 May 05 j 13:21 13°**£**54'28 minimum elong opposition 0°59'53 $-3704 \text{ May } 13 \text{ j } 19:09 \quad 21^{\circ} \Upsilon 23'55$ -3698 May 06 j 09:30 13°**2**48'01 4.18612 AU max. Earth dist. 6.23011 AU min. Earth dist. -3704 May 26 j 10:37 24°**Y**13'47 -3698 Jul 05 j 13:37 morning rise direct 8°**£**59'19 -3704 Jun 22 j 01:39 0°8 -3698 Nov 07 j 04:48 27°**£**34'04 evening set -3704 Sep 27 j 13:51 12°**8**19'28 -3698 Nov 17 j 14:19 0° \mathbb{M} retrograde -3704 Nov 26 j 01:55 7°**8**19'24 0°-12'-42 opposition -3704 Nov 25 j 17:20 7°**8**22'17 4.28388 AU -3698 Nov 19 j 21:21 min. Earth dist. conjunction 0°M32'17 0°18'23 -3703 Jan 25 j 13:57 2°**8**16'11 -3698 Nov 19 j 21:22 0°M32'18 0°18'19 direct minimum elong -3703 Feb 09 j 09:56 2°**8**36'52 -3698 Nov 19 j 04:13 0°M22'15 6.13107 AU asc. node max. Earth dist. -3703 May 07 j 09:54 15°**8** -3698 Dec 02 j 15:30 3°MJ31'31 morning rise -3703 Jun 02 j 06:50 20°**8**30'58 -3697 Jan 25 j 00:05 15° ML evening set retrograde -3697 Apr 10 j 12:35 22°M 52'10 -3703 Jun 15 j 19:34 23°**8**29'31 0°14'22 conjunction desc. node -3697 Apr 20 j 07:55 22°ML43'05 -3703 Jun 15 j 19:33 23°**8**29'30 0°14'29 minimum elong opposition -3697 Jun 10 j 11:07 17° ML54'41 0°-9'-24 behind sun begin -3703 Jun 15 j 16:08 23°**8**27'38 min. Earth dist. -3697 Jun 10 j 12:55 17°ML54'06 4.08094 AU -3703 Jun 15 j 22:57 23°**8**31'22 -3697 Jul 04 j 11:45 15°RM behind sun end -3703 Jun 15 j 18:24 23°**8**28'52 6.33127 AU -3697 Aug 09 j 01:50 13°M 01'25 max. Earth dist. direct -3703 Jun 29 j 05:49 26°**8**26'39 -3697 Sep 13 j 05:13 15°M morning rise -3703 Jul 15 j 17:28 0°**Ⅱ** -3697 Dec 02 j 17:22 0°**∡**7 -3703 Oct 28 і 17:42 13°**Д**47'13 retrograde evening set -3697 Dec 11 i 06:25 2°**х** 00′33 -3703 Dec 27 j 12:10 8°**Д**51'04 0°51'27 opposition -3703 Dec 27 i 20:40 -3697 Dec 24 i 05:23 5°**₹**105'26 0°-30'-1 min. Earth dist. 8°**Ц**48'16 4.36763 AU conjunction direct -3702 Feb 27 i 06:04 3°**Ⅱ**47'23 minimum elong -3697 Dec 24 i 05:20 5°**₹**05'25 0°30'10 evening set -3702 Jul 04 j 23:46 21°**II**44'24 max. Earth dist. -3697 Dec 24 i 15:37 5°**∡**11'32 6.04172 AU 6.39089 AU max. Earth dist. -3702 Jul 17 j 04:42 24°**Ⅲ**24'13 morning rise -3696 Jan 06 j 07:02 8° ₹ 11'55 -3696 May 16 j 19:44 28° ₹ 18'35 retrograde -3702 Jul 18 j 03:51 24°**Д**36'54 0°54'11 -3696 Jul 16 j 06:29 23°**х** 17'07 -1°-18'-3 conjunction opposition -3702 Jul 18 j 03:48 24°**Д**36'52 -3696 Jul 15 j 14:54 23° ₹22'18 4.01657 AU minimum elong 0°54'19 min. Earth dist. -3696 Sep 12 j 18:20 18°**尽** 23'49 morning rise -3702 Jul 31 j 04:28 27°**Ⅲ**27'42 direct -3702 Aug 11 j 23:14 -3696 Dec 12 j 14:26 0ಂತಾ 0°정 retrograde -3702 Nov 28 j 10:13 14°527'20 evening set -3695 Jan 15 j 03:30 7°**る**40'23 -3701 Jan 27 j 15:42 9°934'16 1°39'30 opposition -3701 Jan 28 j 13:19 9°**5**27'17 -3695 Jan 28 j 09:44 10°₹49'56 -1°-8'-25 min. Earth dist. 4.40066 AU conjunction -3701 Mar 31 j 03:10 -3695 Jan 28 j 09:40 10°정49'54 1°08'34 direct 4°931'30 minimum elong -3695 Jan 29 j 20:01 11°**る**10'23 evening set -3701 Aug 05 j 12:45 22°522'18 max. Earth dist. 6.00724 AU max. Earth dist. -3701 Aug 16 j 16:58 24°549'29 6.39358 AU morning rise -3695 Feb 10 j 19:22 14°る01'15 -3695 Apr 29 j 23:20 0°≈ conjunction -3701 Aug 18 j 07:57 25°5010'57 1°18'16 retrograde -3695 Jun 22 j 22:18 4°≈21'20

minimum elong

morning rise

-3701 Aug 18 j 07:55 25°510'56

-3701 Aug 31 j 00:13 27°558'13

-3701 Sep 09 j 08:19 $0^{\circ}\Omega$

1°18'25

opposition

min. Earth dist.

-3695 Aug 16 j 13:46 30°Rる

-3695 Aug 21 j 21:30 29°**⋜**16'53 -1°-57'-56

-3695 Aug 20 j 17:13 29°る26'27 4.01749 AU

-	ical year style is used: Th		•	, ·	3696 BCE in historical of	, .	.50 17
direct	-3695 Oct 18 j 20:40	-		conjunction	-3689 Aug 22 j 15:22		
	-3695 Dec 18 j 06:20	0° ≈		minimum elong	-3689 Aug 22 j 15:21		
evening set	-3694 Feb 21 j 03:13	13° ≈ 39'48		Z .	-3689 Aug 24 j 14:09	$0^{\circ}\Omega$	
C	-3694 Feb 26 j 20:04			morning rise	-3689 Sep 04 j 06:43	2° Ω 21′20	
	J			C	-3689 Nov 08 j 12:07	15° Ω	
conjunction	-3694 Mar 06 j 16:28	16° ≈ 50'48	-1°-21'-3	retrograde	-3688 Jan 03 j 02:41	19° Ω 29'27	
minimum elong	-3694 Mar 06 j 16:29	16° ≈ 50'48	1°21'09		-3688 Feb 29 j 22:49	15° R Ω	
max. Earth dist.	-3694 Mar 08 j 14:44	17° ≈ 18′00	6.04201 AU	opposition	-3688 Mar 03 j 19:59	14° Ω 37'58	2°00'08
morning rise	-3694 Mar 20 j 08:27	20° ≈ 03'02		min. Earth dist.	-	14° Ω 28′24	4.36570 AU
-	-3694 May 04 j 13:43	0° ∀		direct	-3688 May 05 j 09:59	9° Ω 37'39	
retrograde	-3694 Jul 28 j 19:17	9°) 55′33			-3688 Jul 07 j 04:53	15° Ω	
min. Earth dist.	-3694 Sep 25 j 03:41	5° ¥ 00'15	4.08287 AU	evening set	-3688 Sep 08 j 21:23	27° Ω 35'31	
opposition	-3694 Sep 26 j 08:30	4°) € 50′24	-1°-52'-46		-3688 Sep 19 j 15:35	0° m/y	
	-3694 Nov 14 j 18:14	30° R ≈		max. Earth dist.	-3688 Sep 19 j 16:26	0° Mp 00'29	6.32826 AU
direct	-3694 Nov 23 j 17:39	29° ≈ 51'43					
	-3694 Dec 02 j 16:46	0°)		conjunction	-3688 Sep 21 j 10:40	0° Mp 24′12	1°18'50
evening set	-3693 Mar 30 j 00:20	18° ¥ 54'18		minimum elong	-3688 Sep 21 j 10:41	0° Mp 24′13	1°18'54
				morning rise	-3688 Oct 03 j 22:19	3° Mp 12'13	
conjunction	-3693 Apr 12 j 18:27	22°) €03′23	-1°-3'-38	retrograde	-3687 Feb 03 j 20:45	20° m 52'40	
minimum elong	-3693 Apr 12 j 18:30	22° ₭ 03'26	1°03'40	opposition	-3687 Apr 05 j 20:45	16° Mp 00′37	1°41'54
max. Earth dist.	-3693 Apr 14 j 12:32	22°) €27'33	6.13213 AU	min. Earth dist.	-3687 Apr 07 j 02:03	15° m 51'18	4.28253 AU
morning rise	-3693 Apr 26 j 13:17	25°) 12′42		direct	-3687 Jun 06 j 21:09	11° m 03'04	
	-3693 May 18 j 00:35	$0^{\circ}\Upsilon$		evening set	-3687 Oct 10 j 06:09	29° m 17'15	
retrograde	-3693 Aug 31 j 18:16	14° Ƴ 09'59			-3687 Oct 13 j 09:01	0∘ ⊽	
min. Earth dist.	-3693 Oct 29 j 06:57	9° Ƴ 13'51	4.18765 AU	max. Earth dist.	-3687 Oct 21 j 09:48	1° ≏ 50'37	6.22870 AU
opposition	-3693 Oct 30 j 03:34	9° Y ′06'51	-1°-8'-3				
direct	-3693 Dec 28 j 12:21	4° Υ 05'14		conjunction	-3687 Oct 22 j 19:24	2° ჲ 09'56	0°54'23
evening set	-3692 May 03 j 18:17	22° Y '42'26		minimum elong	-3687 Oct 22 j 19:27	2° ჲ 09'58	0°54'22
				morning rise	-3687 Nov 04 j 08:40	5° ჲ 02'49	
conjunction	-3692 May 17 j 11:55	25° Y '46'38	0°-24'-54	retrograde	-3686 Mar 10 j 07:48	23° △ 33'42	
minimum elong	-3692 May 17 j 11:57	25° Ƴ 46'39	0°24'52	opposition	-3686 May 10 j 10:53	18° ≏ 39'16	0°51'10
max. Earth dist.	-3692 May 18 j 08:18	25° Y ′58′03	6.24372 AU	min. Earth dist.	-3686 May 11 j 04:00	18° ≙ 33'47	4.17243 AU
morning rise	-3692 May 31 j 04:30	28° Y ′50'04		direct	-3686 Jul 10 j 06:16	13° ≏ 44′26	
	-3692 Jun 05 j 10:54	9° 8			-3686 Nov 01 j 13:55	0°M₊	
	-3692 Aug 28 j 23:28	15° 8		evening set	-3686 Nov 11 j 19:16	2°M21'56	
retrograde	-3692 Oct 01 j 22:18	16° 8 49'15					
	-3692 Nov 04 j 16:20	15° ₹8		conjunction	-3686 Nov 24 j 12:37	5° ™ 21′02	0°11'47
opposition	-3692 Nov 30 j 10:32			minimum elong	-3686 Nov 24 j 12:38	5° ™ 21′02	0°11'42
min. Earth dist.	-3692 Nov 30 j 04:59		4.29523 AU	behind sun begin	-3686 Nov 24 j 06:53	5° ™ 17'40	
asc. node	-3692 Dec 21 j 12:16	9° 8 09'41		behind sun end	-3686 Nov 24 j 18:23	5° ™ 24'24	
direct	-3691 Jan 30 j 03:10	6° 8 46'22		max. Earth dist.	-3686 Nov 23 j 23:53	5° ™ 13'33	6.11842 AU
	-3691 Apr 18 j 23:26			morning rise	-3686 Dec 07 j 07:32	8° ™ 21'11	
evening set	-3691 Jun 06 j 20:56	24° 8 59'07			-3685 Jan 05 j 16:11		
	2601 7 20:00 51	2001 1000	0000104	desc. node	-3685 Feb 28 j 22:22	24°M41'58	
conjunction	-3691 Jun 20 j 08:51	27° 8 56'57	0°20'24	retrograde	-3685 Apr 15 j 16:14	27° ™ 48'42	
minimum elong	-3691 Jun 20 j 08:50	27° 8 56'56	0°20'32	opposition	-3685 Jun 15 j 12:13	22°M50'41	0°-19'-34
max. Earth dist.	-3691 Jun 20 j 05:35	27° 8 55'09	6.33968 AU	min. Earth dist.	-3685 Jun 15 j 12:35	22°M50'34	4.07032 AU
	-3691 Jun 29 j 16:33	0°Ⅱ 0°Ⅲ		direct	-3685 Aug 13 j 23:40	17°M57'31	
morning rise	-3691 Jul 03 j 17:47	0° П 53'15			-3685 Nov 15 j 14:40	0° ∡ 7	
retrograde	-3691 Nov 01 j 23:20	18° Ⅱ 10'24	0050100	evening set	-3685 Dec 16 j 02:42	6° ₹ 759'16	
opposition	-3691 Dec 31 j 19:33	13° Ⅱ 14'47	0°59'20		2605 D 20:02.22	100 70450	00.261.10
min. Earth dist.	-3690 Jan 01 j 05:11	13° Ⅱ 11'37	4.37281 AU	conjunction	,	10° ₹ 04'52	0°-36'-19
direct	-3690 Mar 03 j 15:18	8° I I11'14		minimum elong	-3685 Dec 29 j 02:29	10° √ 04'51	0°36'29
evening set	-3690 Jul 09 j 10:17	26° I 107'40	(20227 ATT	max. Earth dist.	-3685 Dec 29 j 15:24	10° ₹ 12'32	6.03399 AU
max. Earth dist.	-3690 Jul 21 j 10:15	28°Щ44′55	6.39237 AU	morning rise	-3684 Jan 11 j 05:23	13°ズ12'11 0°る	
agniumation	2600 Iul 22: 12:50	200πε0124	0050126	ratra arada	-3684 Apr 04 j 12:52		
conjunction	-3690 Jul 22 j 12:59	28°∏59'34		retrograde	-3684 May 21 j 22:00	3°₹22'41	
minimum elong	-3690 Jul 22 j 12:55		0°58'45	onnogition	-3684 Jul 08 j 16:31		10 251 40
morning rise	-3690 Jul 27 j 03:20	0°99 1°99/0'50		opposition	-3684 Jul 21 j 08:05		-1°-25'-49
morning rise	-3690 Aug 04 j 12:31	1°549'50		min. Earth dist.	-3684 Jul 20 j 13:43		4.01283 AU
retrograde	-3690 Dec 02 j 19:02	18°9549'30	1944100	direct	-3684 Sep 17 j 15:56	23°×'2/'16 0°る	
opposition	-3689 Feb 01 j 00:45	13°956'46	1°44'09	avaning set	-3684 Nov 22 j 04:13		
min. Earth dist.	-3689 Feb 02 j 00:36 -3689 Apr 04 j 14:25	13° © 49'05 8° © 54'16	4.39862 AU	evening set	-3683 Jan 20 j 04:37	12 043 11	
direct evening set	-3689 Apr 04 j 14:25 -3689 Aug 09 j 21:02	26°9545'43		conjunction	-3683 Feb 02 j 11:51	15° × 55'00	-1°-11'-55
max. Earth dist.	-3689 Aug 20 j 23:48		6 38805 AII	minimum elong	-3683 Feb 02 j 11:31		1°12'05
ururur uist.	3007 Mug 20 J 23.40	_,1222	J.JUUJJ 11U	_	,		
				max. Earth dist.	-3683 Feb 04 j 00:01	16°☆16'42	6.00756 AU

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, page 20
Attention, astronomical year style is used: The year -3683 in astronomical counting style is the year 3684 BCE in historical counting style.

Attention, astronom			in astronomical cou	inting style is the year	3684 BCE in historical	counting style.	
morning rise	-3683 Feb 15 j 22:27	19° පි 06'50		direct	-3677 Apr 09 j 01:09	13° © 19'36	
	-3683 Apr 06 j 03:20	0° ≈			-3677 Aug 08 j 21:18	$0^{\circ}\Omega$	
retrograde	-3683 Jun 27 j 23:44	9° ≈ 25'52		evening set	-3677 Aug 14 j 05:39	1° Ω 09'56	
opposition	-3683 Aug 26 j 20:53	4° ≈ 21'07	-1°-59'-59	max. Earth dist.	-3677 Aug 25 j 06:01	3° Ω 35′27	6.38745 AU
min. Earth dist.	-3683 Aug 25 j 16:33	4° ≈ 30'45	4.02183 AU				
	-3683 Oct 05 j 12:24	30°Ŗる		conjunction	-3677 Aug 26 j 22:48	3° Ω 57'58	1°21'09
direct	-3683 Oct 23 j 21:06	29° る 25'15		minimum elong	-3677 Aug 26 j 22:47	3° Ω 57'58	1°21'16
	-3683 Nov 11 j 06:00	0° ≈		morning rise	-3677 Sep 08 j 13:23	6° Ω 44'47	
	-3682 Feb 10 j 03:21	15° ≈		-	-3677 Oct 18 j 04:02	15° Ω	
evening set	-3682 Feb 26 j 06:00	18° ≈ 42'51		retrograde	-3676 Jan 07 j 13:48	23° Ω 54'19	
	·			opposition	-3676 Mar 08 j 08:06	19° Ω 02'51	1°59'35
conjunction	-3682 Mar 11 j 20:15	21° ≈ 53'54	-1°-20'-20	min. Earth dist.	-3676 Mar 09 j 15:11	18° Ω 52'57	4.36227 AU
minimum elong	-3682 Mar 11 j 20:16	21° ≈ 53'54	1°20'26		-3676 Apr 14 j 14:15		
max. Earth dist.	-3682 Mar 13 j 19:52	22° ≈ 21'49	6.04993 AU	direct	-3676 May 09 j 23:08	14° Ω 02'50	
morning rise	-3682 Mar 25 j 12:50	25°≈06'02			-3676 Jun 04 j 07:26	15° Ω	
C	-3682 Apr 16 j 00:42	0° ∀			-3676 Sep 04 j 02:34	0° m/y	
retrograde	-3682 Aug 02 j 15:40	14°) 52′51		evening set	-3676 Sep 13 j 04:08	2° m 00'23	
min. Earth dist.	-3682 Sep 29 j 23:02	9° ¥ 57'30	4.09349 AU	max. Earth dist.	-3676 Sep 23 j 23:33	4° m) 25'47	6.32226 AU
opposition	-3682 Oct 01 j 03:19	9°) 47′51	-1°-48'-34			,	
direct	-3682 Nov 28 j 13:50	4°) (48'43		conjunction	-3676 Sep 25 j 17:07	4° m 49'09	1°16'45
evening set	-3681 Apr 04 j 01:38			minimum elong	-3676 Sep 25 j 17:09	4° m/49'11	1°16'49
		,, ,,		morning rise	-3676 Oct 08 j 04:34	7° mp 37'21	
conjunction	-3681 Apr 17 j 19:54	26°) 57'41	0°-59'-11	retrograde	-3675 Feb 08 j 08:55	25° m 21'44	
minimum elong	-3681 Apr 17 j 19:58	26°) (57'44	0°59'12	opposition	-3675 Apr 10 j 11:38	20° m) 29'24	1°36'38
max. Earth dist.	-3681 Apr 19 j 10:18	27°) 19′39	6.14448 AU	min. Earth dist.	-3675 Apr 11 j 15:06	20° m/20'40	4.27417 AU
morning rise	-3681 May 01 j 14:59	0° Υ 06'30	0.11110710	direct	-3675 Jun 11 j 08:36	15° mp 32'13	1.27 117 110
morning rise	-3681 May 01 j 03:32	0° Υ		direct	-3675 Sep 27 j 17:30	0° ت	
retrograde	-3681 Sep 05 j 07:50	18° Υ 56'24		evening set	-3675 Oct 14 j 14:04	ა _ 3° ჲ 47'19	
opposition	-3681 Nov 03 j 17:40	13° Υ 53'38	0°-59'-41	max. Earth dist.	-3675 Oct 25 j 20:09	6° £ 22'25	6.21877 AU
min. Earth dist.	-3681 Nov 02 j 22:58	14° Υ '00'00	4.20040 AU	man. Bartir diot.	5070 OCC 20 J 20.05	0 —22 20	0.21077110
direct	-3680 Jan 02 j 06:40	8° Υ 51'39	4.20040710	conjunction	-3675 Oct 27 j 03:32	6° ≏ 40'30	0°49'26
evening set	-3680 May 08 j 15:19	27° Υ 26'12		minimum elong	-3675 Oct 27 j 03:35	6° £ 40'31	0°49'24
evening sec	-3680 May 20 j 03:25	0°8		morning rise	-3675 Nov 08 j 17:13	9° £ 34'00	0 1721
				retrograde	-3674 Mar 15 j 03:17	28° ♀ 10'44	
conjunction	-3680 May 22 j 08:40	0° 8 29'45	0°-18'-36	opposition	-3674 May 15 j 05:13	23° £ 15'55	0°42'20
minimum elong	-3680 May 22 j 08:42	0° 8 29'46	0°18'33	min. Earth dist.	-3674 May 15 j 21:52		4.16127 AU
max. Earth dist.	• •	. •					
	-3680 May 23 i 03:16	0° 呂 40'07	6.25621 AU	direct	-3674 Jul 14 i 21:59	18° ₽ 21'19	
morning rise	-3680 May 23 j 03:16 -3680 Jun 05 j 00:22	0° と 40'07 3° と 32'19	6.25621 AU	direct	-3674 Jul 14 j 21:59 -3674 Oct 16 j 03:44	18° ≏ 21'19 0° ™	
morning rise	-3680 Jun 05 j 00:22	3° 8 32'19	6.25621 AU		-3674 Oct 16 j 03:44	0°M	
-	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01	3° 8 32'19 15° 8	6.25621 AU	direct evening set	•		
retrograde	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39	3° 8 32'19 15° 8 21° 8 25'12	6.25621 AU	evening set	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55	0° ጤ 7° ጤ 01'03	0°05'19
retrograde asc. node	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52	3°\dagger32'19 15°\dagger3 21°\dagger325'12 20°\dagger324'26		evening set	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59	0°M 7°M01'03 10°M00'57	
retrograde asc. node opposition	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31	3°\dagger32'19 15°\dagger321'2 21°\dagger325'12 20°\dagger324'26 16°\dagger326'17	0°05'50	evening set conjunction minimum elong	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58	0°M. 7°M.01'03 10°M.00'57 10°M.00'57	0°05'19 0°05'14
retrograde asc. node	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32	3°\dagger32'19 15°\dagger32'12 21°\dagger32'12 20°\dagger324'26 16°\dagger32'36		evening set conjunction minimum elong behind sun begin	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22	
retrograde asc. node opposition min. Earth dist.	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53	3°\dash32'19 15°\dash32'12 21°\dash25'12 20°\dash24'26 16°\dash26'17 16°\dash27'36 15°\dashd	0°05'50	evening set conjunction minimum elong behind sun begin behind sun end	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 29 j 08:46	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31	0°05'14
retrograde asc. node opposition	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49	3°\days2'19 15°\days25'12 21°\days25'12 20°\days26'17 16°\days27'36 15°\days8d 11°\days22'52	0°05'50	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist.	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 29 j 08:46 -3674 Nov 28 j 13:51	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25	
retrograde asc. node opposition min. Earth dist. direct	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Mar 25 j 21:42	3°\dash32'19 15°\dash32'12 21°\dash25'12 20°\dash24'26 16°\dash26'17 16°\dash27'36 15°\dash2'52 15°\dash32'52	0°05'50	evening set conjunction minimum elong behind sun begin behind sun end	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 29 j 08:46 -3674 Nov 28 j 13:51 -3674 Dec 11 j 20:54	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01	0°05'14
retrograde asc. node opposition min. Earth dist.	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Mar 25 j 21:42 -3679 Jun 11 j 13:15	3°\days2'19 15°\days25'12 20°\days26'17 16°\days26'17 16°\days27'36 15°\days2'52 15°\days2'52 15°\days2'52	0°05'50	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 29 j 08:46 -3674 Nov 28 j 13:51 -3674 Dec 11 j 20:54 -3674 Dec 20 j 07:41	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M.	0°05'14
retrograde asc. node opposition min. Earth dist. direct	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Mar 25 j 21:42	3°\dash32'19 15°\dash32'12 21°\dash25'12 20°\dash24'26 16°\dash26'17 16°\dash27'36 15°\dash2'52 15°\dash32'52	0°05'50	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist.	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 29 j 08:46 -3674 Nov 28 j 13:51 -3674 Dec 11 j 20:54 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32	0°05'14
retrograde asc. node opposition min. Earth dist. direct evening set	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Jun 11 j 13:15 -3679 Jun 13 j 14:10	3°\dashed 32'19 15°\dashed 21°\dashed 25'12 20°\dashed 24'26 16°\dashed 22'36 15°\dashed 32'52 15°\dashed 29°\dashed 33'17 0°\dashed 32'19	0°05'50 4.30650 AU	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 28 j 13:51 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Mar 10 j 00:45	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0° 🗷	0°05'14
retrograde asc. node opposition min. Earth dist. direct evening set	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Jun 11 j 13:15 -3679 Jun 13 j 14:10 -3679 Jun 24 j 23:52	3°\dash 32'19 15°\dash 25'\12 20°\dash 24'\26 16°\dash 22'\36 15°\dash 31'\dash 22'\52 15°\dash 29°\dash 33'\17 0°\pi	0°05'50 4.30650 AU 0°26'29	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 28 j 13:51 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Mar 10 j 00:45 -3673 Apr 20 j 13:29	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0°×7 2°×735'52	0°05'14
retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Jun 25 j 21:42 -3679 Jun 13 j 14:10 -3679 Jun 24 j 23:52 -3679 Jun 24 j 23:50	3°\delta 21'19 15°\delta 21°\delta 25'12 20°\delta 24'26 16°\delta 26'17 16°\delta 27'36 15°\delta 36' 11°\delta 22'52 15°\delta 29°\delta 33'17 0°\delta 2°\delta 30'15 2°\delta 30'14	0°05'50 4.30650 AU 0°26'29 0°26'37	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 28 j 13:51 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Mar 10 j 00:45 -3673 Apr 20 j 13:29 -3673 Jun 01 j 09:34	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0°×7 2°×735'52 30°RM.	0°05'14 6.10715 AU
retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Jun 11 j 13:15 -3679 Jun 13 j 14:10 -3679 Jun 24 j 23:52 -3679 Jun 24 j 23:50 -3679 Jun 24 j 16:27	3°\delta 32'19 15°\delta 21°\delta 25'12 20°\delta 24'26 16°\delta 26'17 16°\delta 27'36 15°\delta 11°\delta 22'52 15°\delta 29°\delta 33'17 0°\delta 2°\delta 30'15 2°\delta 30'14 2°\delta 26'10	0°05'50 4.30650 AU 0°26'29	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 28 j 13:51 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Mar 10 j 00:45 -3673 Apr 20 j 13:29 -3673 Jun 01 j 09:34 -3673 Jun 20 j 09:20	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0°×7 2°×735'52 30°RM. 27°M.37'23	0°05'14 6.10715 AU 0°-29'-18
retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Jun 11 j 13:15 -3679 Jun 13 j 14:10 -3679 Jun 24 j 23:52 -3679 Jun 24 j 23:50 -3679 Jun 24 j 16:27 -3679 Jul 08 j 07:42	3°\delta 32'19 15°\delta 21°\delta 25'12 20°\delta 24'26 16°\delta 26'17 16°\delta 27'36 15°\delta 11°\delta 22'52 15°\delta 29°\delta 33'17 0°\delta 2°\delta 30'15 2°\delta 30'14 2°\delta 26'10 5°\delta 25'41	0°05'50 4.30650 AU 0°26'29 0°26'37	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist.	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 28 j 13:51 -3674 Nov 28 j 13:51 -3674 Dec 11 j 20:54 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Apr 20 j 13:29 -3673 Jun 01 j 09:34 -3673 Jun 20 j 09:20 -3673 Jun 20 j 07:04	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0° 🛪 2° 🛪 35'52 30°RM. 27°M.37'23 27°M.38'07	0°05'14 6.10715 AU
retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Jun 11 j 13:15 -3679 Jun 13 j 14:10 -3679 Jun 24 j 23:52 -3679 Jun 24 j 23:50 -3679 Jun 24 j 16:27 -3679 Jul 08 j 07:42 -3679 Nov 06 j 08:03	3°832'19 15°8 21°825'12 20°824'26 16°826'17 16°827'36 15°88 11°822'52 15°8 29°833'17 0°11 2°1130'15 2°1130'14 2°1126'10 5°1125'41 22°1139'03	0°05'50 4.30650 AU 0°26'29 0°26'37 6.34901 AU	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 28 j 13:51 -3674 Nov 28 j 13:51 -3674 Dec 11 j 20:54 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Apr 20 j 13:29 -3673 Jun 01 j 09:34 -3673 Jun 20 j 09:20 -3673 Jun 20 j 07:04 -3673 Aug 18 j 15:31	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0° √ 2° √ 35'52 30° € 20° √ 35'52 30° € 20° √ 20° √ 35'52 30° € 20° √ 35'52 30° €	0°05'14 6.10715 AU 0°-29'-18
retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Mar 25 j 21:42 -3679 Jun 11 j 13:15 -3679 Jun 13 j 14:10 -3679 Jun 24 j 23:52 -3679 Jun 24 j 16:27 -3679 Jul 08 j 07:42 -3679 Nov 06 j 08:03 -3678 Jan 05 j 05:22	3°832'19 15°8 21°825'12 20°824'26 16°826'17 16°827'36 15°88 11°822'52 15°8 29°833'17 0°11 2°1130'15 2°1130'14 2°1126'10 5°1125'41 22°1139'03 17°1143'53	0°05'50 4.30650 AU 0°26'29 0°26'37 6.34901 AU	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 29 j 08:46 -3674 Nov 28 j 13:51 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Apr 20 j 13:29 -3673 Jun 01 j 09:34 -3673 Jun 20 j 09:20 -3673 Jun 20 j 07:04 -3673 Aug 18 j 15:31 -3673 Oct 27 j 15:37	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0° 🗷 2° 🗷 35'52 30°RM. 27°M.37'23 27°M.38'07 22°M.44'17 0° 🗷	0°05'14 6.10715 AU 0°-29'-18
retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Mar 25 j 21:42 -3679 Jun 11 j 13:15 -3679 Jun 13 j 14:10 -3679 Jun 24 j 23:52 -3679 Jun 24 j 16:27 -3679 Jul 08 j 07:42 -3679 Nov 06 j 08:03 -3678 Jan 05 j 05:22 -3678 Jan 05 j 17:11	3°832'19 15°8 21°825'12 20°824'26 16°826'17 16°827'36 15°88 11°822'52 15°8 29°833'17 0°11 2°1130'15 2°1130'14 2°1126'10 5°1125'41 22°1139'03 17°1143'53 17°1140'00	0°05'50 4.30650 AU 0°26'29 0°26'37 6.34901 AU	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist.	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 28 j 13:51 -3674 Nov 28 j 13:51 -3674 Dec 11 j 20:54 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Apr 20 j 13:29 -3673 Jun 01 j 09:34 -3673 Jun 20 j 09:20 -3673 Jun 20 j 07:04 -3673 Aug 18 j 15:31	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0° 🗷 2° 🗷 35'52 30°RM. 27°M.37'23 27°M.38'07 22°M.44'17 0° 🗷	0°05'14 6.10715 AU 0°-29'-18
retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Jun 11 j 13:15 -3679 Jun 13 j 14:10 -3679 Jun 24 j 23:52 -3679 Jun 24 j 23:50 -3679 Jun 24 j 16:27 -3679 Jul 08 j 07:42 -3679 Nov 06 j 08:03 -3678 Jan 05 j 05:22 -3678 Jan 05 j 05:06	3°832'19 15°8 21°825'12 20°824'26 16°826'17 16°827'36 15°88 11°822'52 15°8 29°833'17 0°11 2°1130'15 2°1130'14 2°1126'10 5°1125'41 22°1139'03 17°1143'53 17°1140'00 12°1140'24	0°05'50 4.30650 AU 0°26'29 0°26'37 6.34901 AU	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 29 j 08:46 -3674 Nov 29 j 08:46 -3674 Nov 28 j 13:51 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Jan 20 j 09:20 -3673 Jun 20 j 09:20 -3673 Jun 20 j 07:04 -3673 Aug 18 j 15:31 -3673 Oct 27 j 15:37 -3673 Dec 20 j 20:01	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0° 🛪 2° 🛪 35'52 30°RM. 27°M.37'23 27°M.38'07 22°M.44'17 0° 🛪 11° 🛪 49'03	0°05'14 6.10715 AU 0°-29'-18 4.05999 AU
retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Jun 25 j 21:42 -3679 Jun 11 j 13:15 -3679 Jun 24 j 23:52 -3679 Jun 24 j 23:52 -3679 Jun 24 j 23:50 -3679 Jun 24 j 16:27 -3679 Jul 08 j 07:42 -3679 Jul 08 j 07:42 -3678 Jan 05 j 05:22 -3678 Jan 05 j 17:11 -3678 Mar 08 j 05:06 -3678 Jul 11 j 05:17	3°\delta 32'19 15°\delta 21°\delta 25'12 20°\delta 24'26 16°\delta 26'17 16°\delta 27'36 15°\delta 21'\delta 22'52 15°\delta 29°\delta 33'17 0°\pi 2°\pi 30'15 2°\pi 30'15 2°\pi 30'14 2°\pi 26'10 5°\pi 25'41 22°\pi 39'03 17°\pi 43'53 17°\pi 40'00 12°\pi 40'24 0°\delta	0°05'50 4.30650 AU 0°26'29 0°26'37 6.34901 AU	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 28 j 13:51 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Mar 10 j 00:45 -3673 Apr 20 j 13:29 -3673 Jun 01 j 09:34 -3673 Jun 20 j 09:20 -3673 Jun 20 j 07:04 -3673 Aug 18 j 15:31 -3673 Oct 27 j 15:37 -3673 Dec 20 j 20:01	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0°×7 2°×735'52 30°RM. 27°M.37'23 27°M.38'07 22°M.44'17 0°×7 11°×749'03	0°05'14 6.10715 AU 0°-29'-18 4.05999 AU 0°-42'-11
retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Jun 11 j 13:15 -3679 Jun 13 j 14:10 -3679 Jun 24 j 23:52 -3679 Jun 24 j 23:50 -3679 Jun 24 j 16:27 -3679 Jul 08 j 07:42 -3679 Nov 06 j 08:03 -3678 Jan 05 j 05:22 -3678 Jan 05 j 05:06	3°832'19 15°8 21°825'12 20°824'26 16°826'17 16°827'36 15°88 11°822'52 15°8 29°833'17 0°11 2°1130'15 2°1130'14 2°1126'10 5°1125'41 22°1139'03 17°1143'53 17°1140'00 12°1140'24	0°05'50 4.30650 AU 0°26'29 0°26'37 6.34901 AU	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 28 j 13:51 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Mar 10 j 00:45 -3673 Apr 20 j 13:29 -3673 Jun 20 j 09:20 -3673 Jun 20 j 07:04 -3673 Aug 18 j 15:31 -3673 Oct 27 j 15:37 -3673 Dec 20 j 20:01 -3672 Jan 02 j 20:49 -3672 Jan 02 j 20:49	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0°×7 2°×735'52 30°RM. 27°M.37'23 27°M.38'07 22°M.44'17 0°×7 11°×749'03	0°05'14 6.10715 AU 0°-29'-18 4.05999 AU 0°-42'-11 0°42'19
retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Mar 25 j 21:42 -3679 Jun 11 j 13:15 -3679 Jun 13 j 14:10 -3679 Jun 24 j 23:52 -3679 Jun 24 j 16:27 -3679 Jul 08 j 07:42 -3679 Nov 06 j 08:03 -3678 Jan 05 j 05:22 -3678 Jan 05 j 17:11 -3678 Mar 08 j 05:06 -3678 Jul 11 j 05:17 -3678 Jul 13 j 22:07	3°832'19 15°8 21°825'12 20°824'26 16°826'17 16°827'36 15°88 11°822'52 15°8 29°833'17 0°Ⅱ 2°Ⅲ30'15 2°Ⅲ30'15 2°Ⅲ30'14 2°Ⅲ26'10 5°Ⅲ25'41 22°Ⅲ39'03 17°Ⅲ43'53 17°Ⅲ40'00 12°Ⅲ40'24 0°9 0°935'08	0°05'50 4.30650 AU 0°26'29 0°26'37 6.34901 AU 1°07'02 4.38001 AU	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 28 j 13:51 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Mar 10 j 00:45 -3673 Apr 20 j 13:29 -3673 Jun 20 j 09:20 -3673 Jun 20 j 07:04 -3673 Jun 20 j 07:04 -3673 Aug 18 j 15:31 -3673 Oct 27 j 15:37 -3673 Dec 20 j 20:01 -3672 Jan 02 j 20:49 -3672 Jan 02 j 20:46 -3672 Jan 03 j 12:11	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0°×7 2°×735'52 30°RM. 27°M.37'23 27°M.38'07 22°M.44'17 0°×7 11°×749'03 14°×755'27 14°×755'25 15°×704'38	0°05'14 6.10715 AU 0°-29'-18 4.05999 AU 0°-42'-11
retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Mar 25 j 21:42 -3679 Jun 11 j 13:15 -3679 Jun 13 j 14:10 -3679 Jun 24 j 23:52 -3679 Jun 24 j 23:50 -3679 Jun 24 j 16:27 -3679 Jul 08 j 07:42 -3679 Nov 06 j 08:03 -3678 Jul 08 j 05:06 -3678 Jul 11 j 05:17 -3678 Jul 13 j 22:07	3°832'19 15°8 21°825'12 20°824'26 16°826'17 16°827'36 15°88 11°822'52 15°8 29°833'17 0°II 2°II30'15 2°II30'14 2°II26'10 5°II25'41 22°II39'03 17°II43'53 17°II40'00 12°II40'24 0°\$ 0°\$35'08	0°05'50 4.30650 AU 0°26'29 0°26'37 6.34901 AU 1°07'02 4.38001 AU	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 28 j 13:51 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Mar 10 j 00:45 -3673 Apr 20 j 13:29 -3673 Jun 20 j 09:20 -3673 Jun 20 j 09:20 -3673 Jun 20 j 07:04 -3673 Aug 18 j 15:31 -3673 Oct 27 j 15:37 -3672 Jan 02 j 20:49 -3672 Jan 02 j 20:49 -3672 Jan 02 j 20:49 -3672 Jan 03 j 12:11 -3672 Jan 16 j 00:42	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0°×7 2°×735'52 30°RM. 27°M.37'23 27°M.38'07 22°M.44'17 0°×7 11°×749'03 14°×755'27 14°×755'25 15°×704'38 18°×703'36	0°05'14 6.10715 AU 0°-29'-18 4.05999 AU 0°-42'-11 0°42'19
retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min minimum elong	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Mar 25 j 21:42 -3679 Jun 11 j 13:15 -3679 Jun 24 j 23:52 -3679 Jun 24 j 23:52 -3679 Jun 24 j 16:27 -3679 Jul 08 j 07:42 -3679 Jul 08 j 07:42 -3679 Nov 06 j 08:03 -3678 Jul 08 j 05:06 -3678 Jul 11 j 05:17 -3678 Jul 13 j 22:07 -3678 Jul 26 j 23:39 -3678 Jul 26 j 23:39	3°832'19 15°8 21°825'12 20°824'26 16°826'17 16°827'36 15°88 11°822'52 15°8 29°833'17 0°11 2°1130'15 2°1130'15 2°1130'14 2°1126'10 5°1125'41 22°139'03 17°1143'53 17°1140'00 12°1140'24 0°5 0°535'08 3°526'18 3°526'17	0°05'50 4.30650 AU 0°26'29 0°26'37 6.34901 AU 1°07'02 4.38001 AU	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 28 j 13:51 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Mar 10 j 00:45 -3673 Apr 20 j 13:29 -3673 Jun 01 j 09:34 -3673 Jun 20 j 09:20 -3673 Jun 20 j 07:04 -3673 Aug 18 j 15:31 -3673 Oct 27 j 15:37 -3673 Dec 20 j 20:01 -3672 Jan 02 j 20:49 -3672 Jan 02 j 20:49 -3672 Jan 03 j 12:11 -3672 Jan 16 j 00:42 -3672 Mar 10 j 14:05	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0° ¾ 2° ¾35'52 30°RM. 27°M.37'23 27°M.38'07 22°M.44'17 0° ¾ 11° ¾49'03 14° ¾55'27 14° ¾55'25 15° ¾04'38 18° ¾03'36 0° ጜ	0°05'14 6.10715 AU 0°-29'-18 4.05999 AU 0°-42'-11 0°42'19
retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min Earth dist.	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Mar 25 j 21:42 -3679 Jun 11 j 13:15 -3679 Jun 24 j 23:52 -3679 Jun 24 j 23:50 -3679 Jun 24 j 16:27 -3679 Jul 08 j 07:42 -3679 Jul 08 j 07:42 -3679 Jul 08 j 07:42 -3678 Jul 08 j 07:42 -3678 Jul 08 j 07:42 -3678 Jul 11 j 05:17 -3678 Jul 13 j 22:07 -3678 Jul 26 j 23:39 -3678 Jul 26 j 23:39 -3678 Jul 26 j 23:36 -3678 Jul 25 j 20:40	3°\delta 32'19 15°\delta 21°\delta 25'12 20°\delta 24'26 16°\delta 26'17 16°\delta 27'36 15°\delta 11°\delta 22'52 15°\delta 29°\delta 33'17 0°\delta 2°\delta 30'15 2°\delta 30'14 2°\delta 25'41 22°\delta 39'03 17°\delta 43'53 17°\delta 40'00 12°\delta 40'24 0°\delta 0°\delta 3°\delta 26'18 3°\delta 26'17 3°\delta 11'32	0°05'50 4.30650 AU 0°26'29 0°26'37 6.34901 AU 1°07'02 4.38001 AU	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 28 j 13:51 -3674 Nov 28 j 13:51 -3674 Dec 11 j 20:54 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Apr 20 j 13:29 -3673 Jun 01 j 09:34 -3673 Jun 20 j 09:20 -3673 Jun 20 j 07:04 -3673 Aug 18 j 15:31 -3673 Dec 20 j 20:01 -3672 Jan 02 j 20:49 -3672 Jan 02 j 20:49 -3672 Jan 03 j 12:11 -3672 Jan 16 j 00:42 -3672 Mar 10 j 14:05 -3672 May 26 j 22:48	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0° ✗ 2° ✗ 35'52 30°RM. 27°M.37'23 27°M.38'07 22°M.44'17 0° ✗ 11° ✗ 49'03 14° ✗ 55'27 14° ✗ 55'25 15° ✗ 04'38 18° ✗ 03'36 0° ❤ 8° ♥ 18'34	0°05'14 6.10715 AU 0°-29'-18 4.05999 AU 0°-42'-11 0°42'19 6.02548 AU
retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min Earth dist. direct evening set	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Mar 25 j 21:42 -3679 Jun 11 j 13:15 -3679 Jun 24 j 23:52 -3679 Jun 24 j 23:50 -3679 Jun 24 j 16:27 -3679 Jul 08 j 07:42 -3679 Jul 08 j 07:42 -3679 Jul 08 j 07:42 -3678 Jul 08 j 07:42 -3678 Jul 08 j 07:42 -3678 Jul 11 j 05:17 -3678 Jul 13 j 22:07 -3678 Jul 26 j 23:39 -3678 Jul 26 j 23:36 -3678 Jul 25 j 20:40 -3678 Aug 08 j 21:41	3°832'19 15°8 21°825'12 20°824'26 16°826'17 16°827'36 15°88 11°822'52 15°8 29°833'17 0°11 2°1130'14 2°1126'10 5°1125'41 22°1139'03 17°1143'53 17°1140'00 12°1140'24 0°90 0°935'08 3°926'18 3°926'17 3°911'32 6°915'50	0°05'50 4.30650 AU 0°26'29 0°26'37 6.34901 AU 1°07'02 4.38001 AU	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde retrograde min. Earth dist.	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 28 j 13:51 -3674 Nov 28 j 13:51 -3674 Dec 11 j 20:54 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Apr 20 j 13:29 -3673 Jun 01 j 09:34 -3673 Jun 20 j 09:20 -3673 Jun 20 j 07:04 -3673 Aug 18 j 15:31 -3673 Oct 27 j 15:37 -3673 Dec 20 j 20:01 -3672 Jan 02 j 20:49 -3672 Jan 02 j 20:49 -3672 Jan 03 j 12:11 -3672 Jan 16 j 00:42 -3672 Mar 10 j 14:05 -3672 May 26 j 22:48 -3672 Jul 25 j 11:20	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0° ✗ 2° ✗ 35'52 30°RM. 27°M.37'23 27°M.38'07 22°M.44'17 0° ✗ 11° ✗ 49'03 14° ✗ 55'27 14° ✗ 55'25 15° ※ 04'38 18° ※ 03'36 0° ♂ 8° ♂ 18'34 3° ♂ 22'36	0°05'14 6.10715 AU 0°-29'-18 4.05999 AU 0°-42'-11 0°42'19 6.02548 AU 4.00708 AU
retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min Earth dist.	-3680 Jun 05 j 00:22 -3680 Jul 31 j 13:01 -3680 Oct 06 j 08:39 -3680 Oct 31 j 06:52 -3680 Dec 04 j 21:31 -3680 Dec 04 j 17:32 -3680 Dec 15 j 19:53 -3679 Feb 03 j 17:49 -3679 Mar 25 j 21:42 -3679 Jun 11 j 13:15 -3679 Jun 24 j 23:52 -3679 Jun 24 j 23:50 -3679 Jun 24 j 16:27 -3679 Jul 08 j 07:42 -3679 Jul 08 j 07:42 -3679 Jul 08 j 07:42 -3678 Jul 08 j 07:42 -3678 Jul 08 j 07:42 -3678 Jul 11 j 05:17 -3678 Jul 13 j 22:07 -3678 Jul 26 j 23:39 -3678 Jul 26 j 23:39 -3678 Jul 26 j 23:36 -3678 Jul 25 j 20:40	3°\delta 32'19 15°\delta 21°\delta 25'12 20°\delta 24'26 16°\delta 26'17 16°\delta 27'36 15°\delta 11°\delta 22'52 15°\delta 29°\delta 33'17 0°\delta 2°\delta 30'15 2°\delta 30'14 2°\delta 25'41 22°\delta 39'03 17°\delta 43'53 17°\delta 40'00 12°\delta 40'24 0°\delta 0°\delta 3°\delta 26'18 3°\delta 26'17 3°\delta 11'32	0°05'50 4.30650 AU 0°26'29 0°26'37 6.34901 AU 1°07'02 4.38001 AU	evening set conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-3674 Oct 16 j 03:44 -3674 Nov 16 j 06:55 -3674 Nov 29 j 00:59 -3674 Nov 29 j 00:58 -3674 Nov 28 j 17:11 -3674 Nov 28 j 13:51 -3674 Nov 28 j 13:51 -3674 Dec 11 j 20:54 -3674 Dec 20 j 07:41 -3673 Jan 11 j 01:40 -3673 Apr 20 j 13:29 -3673 Jun 01 j 09:34 -3673 Jun 20 j 09:20 -3673 Jun 20 j 07:04 -3673 Aug 18 j 15:31 -3673 Dec 20 j 20:01 -3672 Jan 02 j 20:49 -3672 Jan 02 j 20:49 -3672 Jan 03 j 12:11 -3672 Jan 16 j 00:42 -3672 Mar 10 j 14:05 -3672 May 26 j 22:48	0°M. 7°M.01'03 10°M.00'57 10°M.00'57 9°M.56'22 10°M.05'31 9°M.54'25 13°M.02'01 15°M. 19°M.52'32 0° ✗ 2° ✗ 35'52 30°RM. 27°M.37'23 27°M.38'07 22°M.44'17 0° ✗ 11° ✗ 49'03 14° ✗ 55'27 14° ✗ 55'25 15° ✗ 04'38 18° ኧ 03'36 0° ♉ 8°♂ 18'34 3°♂ 22'36 3°♂ 16'11	0°05'14 6.10715 AU 0°-29'-18 4.05999 AU 0°-42'-11 0°42'19 6.02548 AU

direct

-3672 Sep 22 j 12:57 28° ₹22'29

-3677 Feb 06 j 10:37 18°S14'07 4.40078 AU

min. Earth dist.

-	ical year style is used: Th		•	, ·		, .	ige 21
Attention, astronomi	-3672 Oct 23 j 17:22	16 year -3072 0°る	iii astronomicai cou	morning rise	-3666 Aug 13 j 05:25		
avanina aat	-3671 Jan 25 j 03:29			-	-3666 Dec 11 j 10:16		
evening set	-30/1 Jan 25 J 03:29	1/-04230		retrograde			1051145
:	2671 E-L 07: 11.54	200752120	10 14! 47	opposition	-3665 Feb 09 j 20:12		1°51'45 4.40029 AU
conjunction	-3671 Feb 07 j 11:54 -3671 Feb 07 j 11:52		-1°-14'-47	min. Earth dist.	-3665 Feb 10 j 22:04		4.40029 AU
minimum elong	3		1°14'56	direct	-3665 Apr 13 j 12:32		
max. Earth dist.	-3671 Feb 09 j 02:56		6.00518 AU	. ,	-3665 Jul 23 j 11:46	0° Ω	
morning rise	-3671 Feb 20 j 23:28	24°る05'43		evening set	-3665 Aug 18 j 12:56	5° Ω 32'52	(202(5 AII
	-3671 Mar 18 j 14:29	0°≈ 1.4°≈ ≈2.412.6		max. Earth dist.	-3665 Aug 29 j 12:48	7° Ω 58'17	6.38265 AU
retrograde	-3671 Jul 02 j 23:37	14° ≈ 24'36	20.11.5		2665 4 21:05.22	00 000144	1001157
opposition	-3671 Aug 31 j 17:51	9°≈19'46	-2°-1'-5	conjunction	-3665 Aug 31 j 05:23	8° Ω 20'44	1°21'57
min. Earth dist.	-3671 Aug 30 j 13:03	9° ≈ 29'34	4.02336 AU	minimum elong	-3665 Aug 31 j 05:22	8° Ω 20'44	1°22'04
direct	-3671 Oct 28 j 17:12	4°≈23'33		morning rise	-3665 Sep 12 j 19:03	11° Ω 07'24	
. ,	-3670 Jan 23 j 08:00	15° ≈		. 1	-3665 Sep 30 j 16:56	15° Ω	
evening set	-3670 Mar 03 j 07:53	23° ≈ 41′50		retrograde	-3664 Jan 11 j 23:25	28° Ω 20'03	1050127
:	2670 Mar. 16 : 22.52	26952102	10 10! 50	opposition	-3664 Mar 12 j 20:19	23° Ω 28'34	1°58'26
conjunction	-3670 Mar 16 j 22:53	26°≈53'02	-1°-18'-59	min. Earth dist.	-3664 Mar 14 j 02:59		4.35347 AU
minimum elong	-3670 Mar 16 j 22:55	26°≈53'03	1°19'05	direct	-3664 May 14 j 09:14	18° Ω 28'56	
max. Earth dist.	-3670 Mar 18 j 20:59	27°≈20'01	6.05517 AU		-3664 Aug 18 j 11:52	0° m	
morning rise	-3670 Mar 30 j 16:21	0°) €05'16		evening set	-3664 Sep 17 j 11:45	6° Mp 28'08	6 2 1 0 0 5 A T I
. 1	-3670 Mar 30 j 07:17	0°)(max. Earth dist.	-3664 Sep 28 j 06:40	8° Mp 53'44	6.31005 AU
retrograde	-3670 Aug 07 j 09:30	19° ¥ 47'22	10 401 05		26649 20:00.22	00 1 711 6	101.41.5
opposition	-3670 Oct 05 j 20:55	14°) (42'31	-1°-43'-35	conjunction	-3664 Sep 30 j 00:23	•	1°14'15
min. Earth dist.	-3670 Oct 04 j 16:58	14°) 52'05	4.10185 AU	minimum elong	-3664 Sep 30 j 00:26	9° Mp 17'17	1°14'18
direct	-3670 Dec 03 j 09:36	9°) (42'58		morning rise	-3664 Oct 12 j 11:55	12° m 05'59	
evening set	-3669 Apr 09 j 02:09	28°) (41'49		retrograde	-3663 Feb 13 j 02:54	29° m 56'39	1020146
	-3669 Apr 14 j 19:42	0° Ƴ		opposition	-3663 Apr 15 j 04:49	25° m 04'04	1°30'46
				min. Earth dist.	-3663 Apr 16 j 08:18	24° m 55'19	4.25911 AU
conjunction	-3669 Apr 22 j 20:54	1° Y 50'13	0°-54'-19	direct	-3663 Jun 15 j 23:23	20° mp 07'11	
minimum elong	-3669 Apr 22 j 20:57	1° Y 50'15	0°54'19		-3663 Sep 10 j 06:43	0∘ ⊽	
max. Earth dist.	-3669 Apr 24 j 10:38	2°Υ11'45	6.15560 AU	evening set	-3663 Oct 19 j 00:38	8° Ω 25'32	
morning rise	-3669 May 06 j 15:49	4°Υ′58'30		max. Earth dist.	-3663 Oct 30 j 09:12	11° ≏ 02'35	6.20223 AU
retrograde	-3669 Sep 09 j 22:34	23° Y 41'25					
opposition	-3669 Nov 08 j 07:28	18° Ƴ 39'07	0°-50'-58	conjunction	-3663 Oct 31 j 14:39		0°44'03
min. Earth dist.	-3669 Nov 07 j 14:22	18° ℃ 44'55	4.21293 AU	minimum elong	-3663 Oct 31 j 14:41		0°44'02
direct	-3668 Jan 07 j 00:28	13° Y 36′55		morning rise	-3663 Nov 13 j 05:00	14° ≙ 14'07	
	-3668 May 03 j 17:44	0°8			-3662 Feb 03 j 05:07	0°M	
evening set	-3668 May 13 j 11:49	2° 8 08'37		retrograde	-3662 Mar 20 j 01:51	2°M59'08	
					-3662 May 04 j 16:13		
conjunction	-3668 May 27 j 04:28	5° 8 11'21		opposition	-3662 May 20 j 03:51		0°32'55
minimum elong	-3668 May 27 j 04:29	5° 8 11'22	0°12'07	min. Earth dist.	-3662 May 20 j 17:39		4.14452 AU
behind sun begin	-3668 May 26 j 22:59	5° 8 08'19		direct	-3662 Jul 19 j 14:40		
behind sun end	-3668 May 27 j 09:59	5° 8 14'24			-3662 Sep 26 j 09:35	0°M	
max. Earth dist.	-3668 May 27 j 19:32	5° 8 19'44	6.26912 AU	evening set	-3662 Nov 20 j 23:30		
morning rise	-3668 Jun 09 j 19:27	8° 8 13'03		desc. node	-3662 Nov 21 j 00:56	11°11L54'16	
	-3668 Jul 11 j 14:20	15° 8					
asc. node	-3668 Sep 10 j 00:46	24° 8 29'37		conjunction	-3662 Dec 03 j 18:20		0°-1'-35
retrograde	-3668 Oct 10 j 17:22	25° 8 59'29		minimum elong	-3662 Dec 03 j 18:21		0°01'43
opposition	-3668 Dec 09 j 07:52	21° 8 01'02	0°15'08	behind sun begin	-3662 Dec 03 j 10:17		
min. Earth dist.	-3668 Dec 09 j 05:32		4.31864 AU	behind sun end	-3662 Dec 04 j 02:25		
direct	-3667 Feb 08 j 08:32	15° 8 57'28		max. Earth dist.	-3662 Dec 03 j 10:27		6.09168 AU
	-3667 May 28 j 02:29	Π $\circ 0$			-3662 Dec 04 j 03:58		
evening set	-3667 Jun 16 j 04:18	4° Ⅱ 05'04		morning rise	-3662 Dec 16 j 15:20		
		_			-3661 Feb 10 j 14:30	0° ∡ ¹	
conjunction	-3667 Jun 29 j 13:49	7° Ⅱ 01'07	0°32'22	retrograde	-3661 Apr 25 j 18:24	7° ∡ ³38'18	
minimum elong	-3667 Jun 29 j 13:46	7° Ⅱ 01'05	0°32'30	opposition	-3661 Jun 25 j 12:23	2° ∡ ³39'14	0°-39'-21
max. Earth dist.	-3667 Jun 29 j 04:37	6° Ⅱ 56'04	6.35931 AU	min. Earth dist.	-3661 Jun 25 j 07:59	2° ∡ ¹40'41	4.04728 AU
morning rise	-3667 Jul 12 j 20:10	9° Ⅱ 55'32			-3661 Jul 16 j 22:44	30°RM	
retrograde	-3667 Nov 10 j 14:54	27° Ⅱ 04'54		direct	-3661 Aug 23 j 15:04	27°M46'11	
opposition	-3666 Jan 09 j 14:00	22° I I10'10	1°14'18		-3661 Sep 29 j 17:55	0° ₹	
min. Earth dist.	-3666 Jan 10 j 03:26	22° I 105'46	4.38751 AU	evening set	-3661 Dec 25 j 19:40	16° ∡ 754'37	
direct	-3666 Mar 12 j 16:52	17° Ⅱ 06'47				- · · · - ·	
	-3666 Jun 24 j 18:45	0.@		conjunction	-3660 Jan 07 j 21:36		0°-48'-2
evening set	-3666 Jul 18 j 08:22	4°\$59'40		minimum elong	-3660 Jan 07 j 21:33		0°48'11
max. Earth dist.	-3666 Jul 30 j 01:48	7° © 33'20	6.40065 AU	max. Earth dist.	-3660 Jan 08 j 17:36		6.01683 AU
				morning rise	-3660 Jan 21 j 02:36		
conjunction	-3666 Jul 31 j 08:28	7° © 50'08	1°06'34	_	-3660 Feb 19 j 18:10	0°る	
minimum elong	-3666 Jul 31 j 08:25	7° © 50'06	1°06'43	retrograde	-3660 Jun 01 j 05:37	13° 6 29'32	

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3660 in astronomical counting style is the year 3661 BCE in historical counting style. -3660 Jul 31 j 10:29 8°る26'45 -1°-39'-18 min. Earth dist. -3654 Jan 14 j 11:00 26° **I**I 21'14 4.39362 AU opposition 8°**る**33'54 -3660 Jul 30 j 13:08 4.00403 AU direct -3654 Mar 17 j 00:35 21°**Ⅲ**23'02 min. Earth dist. -3660 Sep 27 j 14:11 3°₹32'52 -3654 Jun 07 j 05:43 direct 000 9°9514'46 -3659 Jan 30 j 08:20 22°る54'30 -3654 Jul 22 j 14:41 evening set evening set -3654 Aug 03 j 05:23 11°**9**547'00 max. Earth dist. 6.40125 AU -3659 Feb 12 j 17:36 26° ₹ 05'21 -1°-17'-15 conjunction -3659 Feb 12 j 17:34 26°る05'19 -3654 Aug 04 j 13:40 12°504'42 minimum elong 1°17'23 conjunction 1°09'53 -3654 Aug 04 j 13:37 12°504'41 max. Earth dist. -3659 Feb 14 j 10:03 26°**⋜**29'24 6.00787 AU minimum elong 1°10'01 14°953'04 -3654 Aug 17 j 09:19 morning rise -3659 Feb 26 j 06:17 29°る17'52 morning rise -3654 Nov 10 j 17:47 -3659 Mar 01 j 05:54 0°≈ 0° Ω -3659 May 13 j 20:22 15°**≈** retrograde -3654 Dec 15 j 15:23 1°**Ω**51'54 -3659 Jul 08 j 00:37 -3653 Jan 19 j 19:01 retrograde 19°**≈**33'46 30°Rூ -3653 Feb 14 j 02:52 26°559'55 -3659 Sep 01 j 22:42 15°R≈ opposition 1°54'35 opposition -3659 Sep 05 j 18:39 14°**≈**28'42 -2°-1'-19 min. Earth dist. -3653 Feb 15 j 06:18 26°551'08 4.39546 AU min. Earth dist. -3659 Sep 04 j 12:28 14°≈39'00 4.03189 AU direct -3653 Apr 17 j 19:27 21°958'10 direct -3659 Nov 02 j 18:26 9°**≈**32'02 -3653 Jul 05 j 15:27 $0^{\circ}\Omega$ -3658 Jan 01 j 07:42 15°≈ evening set -3653 Aug 22 j 18:03 9°**Ω**49'49 evening set -3658 Mar 08 j 12:41 28°≈47'52 max. Earth dist. -3653 Sep 02 j 14:13 12°**Ω**13'41 6.37251 AU -3658 Mar 13 j 16:49 0°**₩** conjunction -3653 Sep 04 j 09:38 12° Ω37'46 1°22'16 conjunction -3658 Mar 22 j 04:32 1°**)** 58'46 -1°-17'-5 minimum elong $-3653 \text{ Sep } 04 \text{ j } 09:37 \quad 12^{\circ} \Omega 37'46$ minimum elong -3658 Mar 22 i 04:34 1°**¥**58'48 1°17'10 -3653 Sep 15 i 02:17 15°Ω max. Earth dist. -3658 Mar 24 i 04:12 2°**)** 26'35 6.06894 AU morning rise $-3653 \text{ Sep } 16 \text{ j } 22:56 \quad 15^{\circ} \Omega 24'39$ morning rise -3658 Apr 04 j 22:17 5°**)** 10'31 -3653 Dec 04 i 20:58 0° m retrograde -3658 Aug 12 j 05:22 24°\ 44'07 retrograde -3652 Jan 16 j 11:18 2° m 42'29 -3658 Oct 10 j 15:37 19° **★**39'27 -1°-37'-52 -3652 Feb 28 j 18:13 30°RΩ opposition -3658 Oct 09 j 13:00 19°\ 48'33 4.11922 AU $-3652 \text{ Mar } 17 \text{ j } 07:49 \quad 27^{\circ} \Omega 50'59 \quad 1^{\circ} 56'40$ min. Earth dist. opposition -3658 Dec 08 j 08:32 14° ¥ 39'29 -3652 Mar 18 j 15:18 27°**Ω**40'58 direct min. Earth dist. 4.33865 AU -3657 Mar 29 j 04:07 $0^{\circ}\Upsilon$ -3652 May 18 j 18:50 22°**Ω**51'40 direct 3°Y33'17 -3657 Apr 14 j 02:31 -3652 Jul 30 j 18:05 0° M evening set -3652 Sep 21 j 18:36 10° **m** 54'38 evening set -3657 Apr 27 j 21:09 6°Υ40'48 0°-49'-9 -3652 Oct 02 j 15:16 13° Mp 21'47 conjunction max. Earth dist. 6.29183 AU -3657 Apr 27 j 21:13 6°**Y**40'50 0°49'10 minimum elong 6.17507 AU -3657 Apr 29 j 08:23 7°**Y**00'49 -3652 Oct 04 j 07:23 13° mp 44'31 1°11'19 max. Earth dist. conjunction -3657 May 11 j 15:52 9°**Y**48′07 -3652 Oct 04 j 07:26 13° m 44'32 1°11'21 morning rise minimum elong -3657 Sep 14 j 08:27 28°**Y**21'04 -3652 Oct 16 j 18:59 16° m 34'03 retrograde morning rise -3657 Nov 12 j 19:16 23°**Y**19'12 0°-42'-6 opposition -3652 Dec 23 j 16:08 0∘**⊽** min. Earth dist. -3657 Nov 12 j 03:24 23°**Υ**24'35 4.23255 AU retrograde -3651 Feb 17 j 20:46 4°**£**33'16 -3656 Jan 11 j 16:46 18°**Υ**16'40 -3651 Apr 17 j 09:37 30°R My direct -3656 Apr 16 j 17:09 0°8 opposition -3651 Apr 19 j 23:00 29° Mp 40'29 1°24'19 -3656 May 18 j 05:10 6°**8**43'11 min. Earth dist. -3651 Apr 21 j 00:40 29° m 32'18 4.23869 AU evening set direct -3651 Jun 20 j 12:05 24° m 44'05 -3656 May 31 j 21:01 9°**8**44'48 0°-5'-55 -3651 Aug 20 j 04:27 conjunction -3656 May 31 j 21:02 9°844'49 0°05'50 -3651 Oct 23 j 12:59 13°**♀**07'34 minimum elong evening set -3656 May 31 j 13:08 9°**8**40'27 max. Earth dist. -3651 Nov 04 j 00:00 15°**Ω**46'49 6.18148 AU behind sun begin -3656 Jun 01 i 04:57 behind sun end 9°**8**49'11 -3656 Jun 01 i 08:33 -3651 Nov 05 j 03:26 16° **2**02'45 0°38'20 max. Earth dist. 9°**8**51'12 6.28743 AU conjunction -3656 Jun 14 i 10:55 12°**8**45'17 morning rise minimum elong -3651 Nov 05 i 03:29 16° **2**02'46 0°38'18 -3656 Jun 24 j 17:28 15°8 morning rise -3651 Nov 17 j 18:43 18°**♀**58'32 -3656 Jul 22 j 02:03 20°840'19 -3650 Jan 08 i 09:20 0°M asc. node -3656 Sep 29 j 06:48 $\Pi^{\circ}0$ retrograde -3650 Mar 25 j 04:38 7°ML53'29 -3656 Oct 15 j 00:16 0°**I**I24′03 -3650 May 25 j 05:01 2°ML57'44 0°23'06 retrograde opposition -3656 Oct 30 j 14:35 30°R8 min. Earth dist. -3650 May 25 j 16:22 2°M 54'05 4.12495 AU -3650 Jun 18 j 22:02 30°R**≏** opposition -3656 Dec 13 j 15:03 25°**8**26'10 0°24'01 -3650 Jul 24 j 11:05 28°**♀**03'45 min. Earth dist. -3656 Dec 13 j 15:47 25°**8**25'55 4.33401 AU direct direct -3655 Feb 12 j 20:51 20°822'32 -3650 Aug 28 j 13:00 0°M -3655 May 10 j 17:53 Π °0 desc. node -3650 Sep 30 j 07:09 4°M46'35 -3655 Jun 20 j 14:57 8°**Ⅱ**26′23 -3650 Nov 17 j 18:18 15°M evening set -3650 Nov 25 j 19:03 16°M52'45 evening set -3655 Jul 03 j 23:11 11°**Ⅲ**21'27 0°37'51 conjunction -3650 Dec 08 j 14:59 19°M 54'49 0°-8'-31 minimum elong -3655 Jul 03 j 23:08 11°**Ⅲ**21'25 0°37'59 conjunction max. Earth dist. -3655 Jul 03 j 09:39 11°**I**I14'02 6.37030 AU minimum elong -3650 Dec 08 j 14:58 19°M 54'49 0°08'39 morning rise -3655 Jul 17 j 04:16 14°**I**I14'54 behind sun begin -3650 Dec 08 j 07:56 19°M 50'40 -3655 Oct 16 j 11:45 0 \circ \odot behind sun end -3650 Dec 08 j 22:01 19°M 58'58 retrograde -3655 Nov 14 j 18:20 1°9520'42 max. Earth dist. -3650 Dec 08 j 12:14 19°M 53'13 6.07532 AU -3655 Dec 14 j 01:13 30°R II -3650 Dec 21 j 13:03 22°ML58'16 morning rise -3654 Jan 13 j 19:18 26°**Ⅲ**26'21 1°20'52 -3649 Jan 21 j 10:00 opposition

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, page 23

Attention, astronomical year style is used: The year -3649 in astronomical counting style is the year 3650 BCE in historical counting style.

retrograde -3649 May 01 j 01:56 12° \$\tilde{7}\$47'45 -3644 Dec 17 j 05:54 30° \$\tilde{8}\$

						()	
retrograde	-3649 May 01 j 01:56				-3644 Dec 17 j 05:54		
opposition	-3649 Jun 30 j 17:59	7° ∡ ¹48'11	0°-49'-17	min. Earth dist.	-3644 Dec 18 j 01:30		4.34575 AU
min. Earth dist.	-3649 Jun 30 j 10:26	7° ∡ ¹50'40	4.03593 AU	direct	-3643 Feb 17 j 07:50		
direct	-3649 Aug 28 j 16:18	2° ∡ 55′13			-3643 Apr 19 j 13:12	0°II	
evening set	-3649 Dec 30 j 22:15	22° ₰ 06'41		evening set	-3643 Jun 25 j 03:08	12° Ⅱ 52'03	
conjunction	-3648 Jan 13 j 01:04	25° ҂ 14'37	0°-53'-37	conjunction	-3643 Jul 08 j 10:03	15° Ⅱ 46'16	0°43'13
minimum elong	-3648 Jan 13 j 01:01		0°53'47	minimum elong	-3643 Jul 08 j 10:00		0°43'21
max. Earth dist.	-3648 Jan 14 j 00:07		6.01120 AU	max. Earth dist.	-3643 Jul 07 j 17:01		6.37796 AU
morning rise	-3648 Jan 26 j 07:19	28° ∡ ¹24'23		morning rise	-3643 Jul 21 j 13:48	18° Ⅲ 38'51	
3	-3648 Feb 02 j 01:19	0°ਰ		3 3	-3643 Sep 17 j 00:43	0ಂತಾ	
retrograde	-3648 Jun 06 j 11:24	18° ප් 45'00		retrograde	-3643 Nov 19 j 01:27	5°542'11	
opposition	-3648 Aug 05 j 15:43	13° ප් 41'41	-1°-45'-8	opposition	-3642 Jan 18 j 02:50	0°548'17	1°27'10
min. Earth dist.	-3648 Aug 04 j 15:35	13° る 49'48	4.00482 AU	min. Earth dist.	-3642 Jan 18 j 21:15	0°542'19	4.39692 AU
direct	-3648 Oct 02 j 17:38	8° る 47'28		mm. Bartin diot.	-3642 Jan 24 j 08:08	30°RⅡ	
evening set	-3647 Feb 04 j 14:17	28° る 08'45		direct	-3642 Mar 21 j 11:02	•	
evening sec	-3647 Feb 12 j 10:20	0°≈			-3642 May 16 j 00:13	0.2 2 2 10 00	
	3017100 12 3 10.20	0 / • ·		evening set	-3642 Jul 26 j 23:13		
conjunction	-3647 Feb 18 j 00:40	1°≈19'43	-1°-19'-7	max. Earth dist.	-3642 Aug 07 j 09:37		6.39966 AU
minimum elong	-3647 Feb 18 j 00:39		1°19'14	max. Earth dist.	-3042 Aug 07 J 07.37	10 30020	0.57700 AC
max. Earth dist.	-3647 Feb 19 j 20:46	1°≈45'53	6.01467 AU	conjunction	-3642 Aug 08 j 21:03	16° © 25'52	1°12'54
morning rise	-3647 Mar 03 j 14:01	4°≈32'12	0.01407 AC	minimum elong	-3642 Aug 08 j 21:00	16° © 25'51	1°13'01
morning risc	-3647 Apr 19 j 21:39	4 ≈32 12 15°≈		morning rise	-3642 Aug 21 j 15:42	10 3 23 31	1 1501
retrograde	-3647 Jul 13 j 02:49	13 ≈ 24° ≈ 43'12		morning rise	-3642 Oct 14 j 12:55	19 3 13 32	
opposition	-3647 Sep 10 j 19:05	24 ≈43 12 19°≈38'01	-2°00'-36	retrograde	-3642 Dec 20 j 00:14	6° Ω 14'17	
min. Earth dist.	-3647 Sep 10 j 13:03	19 ≈38 01 19°≈48'08		opposition	-3641 Feb 18 j 12:47	1°Ω22'25	1°56'53
min. Earth dist.	1 3		4.04376 AU		•	$1^{\circ}0.22^{\circ}23$ $1^{\circ}0.13^{\circ}21$	
Ji	-3647 Oct 25 j 06:41	15°R≈ 14°2 • 40!53		min. Earth dist.	-3641 Feb 19 j 17:05		4.38940 AU
direct	-3647 Nov 07 j 21:12	14°≈40'53		J: 4	-3641 Mar 01 j 09:36		
	-3647 Nov 21 j 12:20	15° ≈		direct	-3641 Apr 22 j 04:50		
. ,	-3646 Feb 24 j 16:16	0°) (53110		. ,	-3641 Jun 12 j 09:36	0° N	
evening set	-3646 Mar 13 j 17:28	3° ¥ 53′18		evening set	• •	14° Ω 14'03	
	264634 27:00.50	701/02/46	10 141 27	E 4 U 4	-3641 Aug 30 j 12:43	15° Ω	(2(242 ATT
conjunction	-3646 Mar 27 j 09:50	7°) (03'46	-1°-14'-37	max. Earth dist.	-3641 Sep 06 j 22:00	16°8738'26	6.36243 AU
minimum elong	-3646 Mar 27 j 09:53	7°) (03'48	1°14'41		2641.0 00:16.25	170 00007	1022100
max. Earth dist.	-3646 Mar 29 j 08:32	7°) (30'53	6.08454 AU	conjunction	-3641 Sep 08 j 16:35		1°22'09
morning rise	-3646 Apr 10 j 04:04	10°) 14'57		minimum elong	-3641 Sep 08 j 16:35		1°22'16
retrograde	-3646 Aug 16 j 22:10	29°) (39'29		morning rise	-3641 Sep 21 j 05:13		
min. Earth dist.	-3646 Oct 14 j 06:54	24°) (44'03	4.13689 AU		-3641 Nov 09 j 20:41	0° m)	
opposition	-3646 Oct 15 j 09:08	24°) (35'06	-1°-31'-29	retrograde	-3640 Jan 21 j 00:52	7° Mp 12′04	
direct	36/16 Dec 13 : 05:10	100 # 3/1/12					
	-3646 Dec 13 j 05:10	19°) (34′42		opposition	-3640 Mar 21 j 22:20		1°54'11
	-3645 Mar 11 j 01:51	0° Υ		opposition min. Earth dist.	-3640 Mar 23 j 05:36	2° m/10'36	1°54'11 4.32529 AU
evening set				min. Earth dist.	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53	2° m 10′36 30° RΩ	
-	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11	0°Υ 8°Υ23'52			-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47	2° № 10'36 30° R Ω 27° № 21'40	
conjunction	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44	0°Υ 8°Υ23'52 11°Υ30'33	0°-43'-41	min. Earth dist.	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16	2° M 10'36 30°R N 27° N 21'40 0° M	
conjunction minimum elong	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48	0°Υ 8°Υ23'52 11°Υ30'33 11°Υ30'35	0°43'40	min. Earth dist. direct evening set	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08	2° M 10'36 30°R N 27° N 21'40 0° M 15° M 27'33	4.32529 AU
conjunction minimum elong max. Earth dist.	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22	0°Y 8°Y23'52 11°Y30'33 11°Y30'35 11°Y48'27		min. Earth dist.	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16	2° M 10'36 30°R N 27° N 21'40 0° M 15° M 27'33	
conjunction minimum elong	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04	0°Y 8°Y23'52 11°Y30'33 11°Y30'35 11°Y48'27 14°Y36'53	0°43'40	min. Earth dist. direct evening set max. Earth dist.	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 07 j 00:46	2° m 10'36 30° R Ω 27° Ω 21'40 0° m 15° m 27'33 17° m 55'17	4.32529 AU 6.27636 AU
conjunction minimum elong max. Earth dist. morning rise	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10	0°Υ 8°Υ23'52 11°Υ30'33 11°Υ30'35 11°Υ48'27 14°Υ36'53 0°8	0°43'40	min. Earth dist. direct evening set max. Earth dist. conjunction	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 07 j 00:46	2° Thy $10'36$ 30° R Ω 27° Ω $21'40$ 0° Thy 15° Thy $27'33$ 17° Thy $55'17$ 18° Thy $18'03$	4.32529 AU 6.27636 AU 1°07'54
conjunction minimum elong max. Earth dist.	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05	0°Υ 8°Υ23'52 11°Υ30'33 11°Υ30'35 11°Υ48'27 14°Υ36'53 0°႘ 3°႘00'51	0°43'40	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Oct 07 j 00:46 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49	2° Mp 10'36 30° RΩ 27° Ω21'40 0° Mp 15° Mp 27'33 17° Mp 55'17 18° Mp 18'03 18° Mp 18'04	4.32529 AU 6.27636 AU
conjunction minimum elong max. Earth dist. morning rise retrograde	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05 -3645 Nov 01 j 23:12	0°Υ 8°Υ23'52 11°Υ30'33 11°Υ30'35 11°Υ48'27 14°Υ36'53 0°8 3°800'51 30°RΥ	0°43'40 6.19346 AU	min. Earth dist. direct evening set max. Earth dist. conjunction	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Oct 07 j 00:46 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47	2° Mp 10'36 30° R Ω 27° Ω 21'40 0° Mp 15° Mp 27'33 17° Mp 55'17 18° Mp 18'03 18° Mp 18'04 21° Mp 08'22	4.32529 AU 6.27636 AU 1°07'54
conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05 -3645 Nov 01 j 23:12 -3645 Nov 17 j 07:07	0°Y 8°Y23'52 11°Y30'33 11°Y30'35 11°Y48'27 14°Y36'53 0°8 3°800'51 30°RY 27°Y59'32	0°43'40 6.19346 AU 0°-33'-1	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Oct 07 j 00:46 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36	2° TO $10'36$ 30° R Ω 27° Ω $21'40$ 0° TO 15° TO $27'33$ 17° TO $55'17$ 18° TO $18'03$ 18° TO $18'04$ 21° TO $108'22$ 0° Ω	4.32529 AU 6.27636 AU 1°07'54
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05 -3645 Nov 01 j 23:12 -3645 Nov 17 j 07:07 -3645 Nov 16 j 18:24	0°Y 8°Y23'52 11°Y30'33 11°Y30'35 11°Y48'27 14°Y36'53 0°8 3°800'51 30°RY 27°Y59'32 28°Y03'49	0°43'40 6.19346 AU	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Oct 07 j 00:46 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38	2° Mp 10'36 30° RΩ 27° Ω21'40 0° Mp 15° Mp 27'33 17° Mp 55'17 18° Mp 18'03 18° Mp 18'04 21° Mp 08'22 0° Ω 9° Ω 15'06	4.32529 AU 6.27636 AU 1°07'54 1°07'56
conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05 -3645 Nov 01 j 23:12 -3645 Nov 17 j 07:07 -3645 Nov 16 j 18:24 -3644 Jan 16 j 10:14	0°Y 8°Y23'52 11°Y30'33 11°Y30'35 11°Y48'27 14°Y36'53 0°8 3°800'51 30°RY 27°Y59'32 28°Y03'49 22°Y56'44	0°43'40 6.19346 AU 0°-33'-1	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 07 j 00:46 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38 -3639 Apr 24 j 19:23	2° m 10'36 30° RΩ 27°Ω21'40 0° m 15° m 27'33 17° m 55'17 18° m 18'03 18° m 18'04 21° m 08'22 0° Ω 9° Ω 15'06 4° Ω 21'58	4.32529 AU 6.27636 AU 1°07'54 1°07'56
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Nov 01 j 23:12 -3645 Nov 17 j 07:07 -3645 Nov 16 j 18:24 -3644 Jan 16 j 10:14 -3644 Mar 28 j 00:48	0°Y 8°Y23'52 11°Y30'33 11°Y30'35 11°Y48'27 14°Y36'53 0°8 3°800'51 30°RY 27°Y59'32 28°Y03'49 22°Y56'44 0°8	0°43'40 6.19346 AU 0°-33'-1	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 07 j 00:46 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38 -3639 Apr 24 j 19:23 -3639 Apr 25 j 19:13	2° m 10'36 30° R Ω 27° Ω 21'40 0° m 15° m 27'33 17° m 55'17 18° m 18'03 18° m 18'04 21° m 08'22 0° Ω 9° Ω 15'06 4° Ω 21'58 4° Ω 14'21	4.32529 AU 6.27636 AU 1°07'54 1°07'56
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Nov 01 j 23:12 -3645 Nov 17 j 07:07 -3645 Nov 16 j 18:24 -3644 Jan 16 j 10:14 -3644 Mar 28 j 00:48 -3644 May 22 j 22:35	0°Y 8°Y23'52 11°Y30'33 11°Y48'27 14°Y36'53 0°8 3°800'51 30°RY 27°Y59'32 28°Y03'49 22°Y56'44 0°8 11°819'05	0°43'40 6.19346 AU 0°-33'-1	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 07 j 00:46 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38 -3639 Apr 24 j 19:23 -3639 Apr 25 j 19:13 -3639 Jun 06 j 01:37	2° TO $10'36$ 30° R Ω 27° Ω $21'40$ 0° TO 15° TO	4.32529 AU 6.27636 AU 1°07'54 1°07'56
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Nov 01 j 23:12 -3645 Nov 17 j 07:07 -3645 Nov 16 j 18:24 -3644 Jan 16 j 10:14 -3644 Mar 28 j 00:48	0°Y 8°Y23'52 11°Y30'33 11°Y30'35 11°Y48'27 14°Y36'53 0°8 3°800'51 30°RY 27°Y59'32 28°Y03'49 22°Y56'44 0°8	0°43'40 6.19346 AU 0°-33'-1	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38 -3639 Apr 24 j 19:23 -3639 Apr 25 j 19:13 -3639 Jun 06 j 01:37 -3639 Jun 25 j 04:37	2° m 10'36 30° R	4.32529 AU 6.27636 AU 1°07'54 1°07'56
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set asc. node	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05 -3645 Nov 01 j 23:12 -3645 Nov 17 j 07:07 -3645 Nov 16 j 18:24 -3644 Jan 16 j 10:14 -3644 Mar 28 j 00:48 -3644 May 22 j 22:35 -3644 Jun 01 j 06:55	0°Y 8°Y23'52 11°Y30'33 11°Y48'27 14°Y36'53 0°8 3°800'51 30°8Y 27°Y59'32 28°Y03'49 22°Y56'44 0°8 11°819'05 13°822'53	0°43'40 6.19346 AU 0°-33'-1 4.24986 AU	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 07 j 00:46 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38 -3639 Apr 24 j 19:23 -3639 Apr 25 j 19:13 -3639 Jun 06 j 01:37 -3639 Jul 25 j 04:37 -3639 Jul 14 j 07:05	2° m 10'36 30° R Ω 27° Ω 21'40 0° m 15° m 27'33 17° m 55'17 18° m 18'03 18° m 18'04 21° m 08'22 0° Ω 9° Ω 15'06 4° Ω 21'58 4° Ω 14'21 30° R m 29° m 25'56 0° Ω	4.32529 AU 6.27636 AU 1°07'54 1°07'56
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set asc. node conjunction	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05 -3645 Nov 01 j 23:12 -3645 Nov 17 j 07:07 -3645 Nov 16 j 18:24 -3644 Jan 16 j 10:14 -3644 Mar 28 j 00:48 -3644 May 22 j 22:35 -3644 Jun 01 j 06:55	0°Y 8°Y23'52 11°Y30'33 11°Y30'35 11°Y48'27 14°Y36'53 0°8 3°800'51 30°RY 27°Y59'32 28°Y03'49 22°Y56'44 0°8 11°819'05 13°822'53	0°43'40 6.19346 AU 0°-33'-1 4.24986 AU	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38 -3639 Apr 24 j 19:23 -3639 Apr 25 j 19:13 -3639 Jun 06 j 01:37 -3639 Jun 25 j 04:37	2° m 10'36 30° R	4.32529 AU 6.27636 AU 1°07'54 1°07'56
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set asc. node conjunction minimum elong	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 04 j 15:04 -3645 Aug 05 j 16:10 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05 -3645 Nov 01 j 23:12 -3645 Nov 17 j 07:07 -3645 Nov 16 j 18:24 -3644 Jan 16 j 10:14 -3644 Mar 28 j 00:48 -3644 May 22 j 22:35 -3644 Jun 01 j 06:55 -3644 Jun 05 j 13:40 -3644 Jun 05 j 13:40	0°Y 8°Y23'52 11°Y30'33 11°Y30'35 11°Y48'27 14°Y36'53 0°8 3°800'51 30°8Y 27°Y59'32 28°Y03'49 22°Y56'44 0°8 11°819'05 13°822'53	0°43'40 6.19346 AU 0°-33'-1 4.24986 AU	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38 -3639 Apr 24 j 19:23 -3639 Apr 25 j 19:13 -3639 Jun 06 j 01:37 -3639 Jun 25 j 04:37 -3639 Jul 14 j 07:05 -3639 Oct 28 j 02:36	2° m 10'36 30° R Ω 27° Ω 21'40 0° m 15° m 27'33 17° m 25'17 18° m 18'03 18° m 18'04 21° m 08'22 0° Ω 9° Ω 15'06 4° Ω 21'58 4° Ω 14'21 30° R m 29° m 25'56 0° Ω 17° Ω 52'59	4.32529 AU 6.27636 AU 1°07'54 1°07'56 1°17'11 4.22222 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set asc. node conjunction minimum elong behind sun begin	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05 -3645 Nov 01 j 23:12 -3645 Nov 17 j 07:07 -3645 Nov 16 j 18:24 -3644 Jan 16 j 10:14 -3644 Mar 28 j 00:48 -3644 Jun 01 j 06:55 -3644 Jun 05 j 13:40 -3644 Jun 05 j 13:40 -3644 Jun 05 j 05:23	0°Y 8°Y23'52 11°Y30'33 11°Y30'35 11°Y48'27 14°Y36'53 0°8 3°800'51 30°RY 27°Y59'32 28°Y03'49 22°Y56'44 0°8 11°819'05 13°822'53 14°819'45 14°819'45 14°815'12	0°43'40 6.19346 AU 0°-33'-1 4.24986 AU	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 07 j 00:46 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38 -3639 Apr 24 j 19:23 -3639 Apr 25 j 19:13 -3639 Jun 06 j 01:37 -3639 Jun 25 j 04:37 -3639 Jul 14 j 07:05 -3639 Nov 09 j 17:49	2° m 10'36 30° R Ω 27° Ω 21'40 0° m 15° m 27'33 17° m 25'17 18° m 18'03 18° m 18'04 21° m 08'22 0° Ω 9° Ω 15'06 4° Ω 21'58 4° Ω 14'21 30° R m 29° m 25'56 0° Ω 17° Ω 52'59	4.32529 AU 6.27636 AU 1°07'54 1°07'56 1°17'11 4.22222 AU 0°32'19
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set asc. node conjunction minimum elong behind sun begin behind sun end	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05 -3645 Nov 01 j 23:12 -3645 Nov 17 j 07:07 -3645 Nov 16 j 18:24 -3644 Jan 16 j 10:14 -3644 Mar 28 j 00:48 -3644 Jun 01 j 06:55 -3644 Jun 05 j 13:40 -3644 Jun 05 j 13:40 -3644 Jun 05 j 05:23 -3644 Jun 05 j 05:23 -3644 Jun 05 j 05:23	0°Y 8°Y23'52 11°Y30'33 11°Y30'35 11°Y48'27 14°Y36'53 0°8 3°800'51 30°RY 27°Y59'32 28°Y03'49 22°Y56'44 0°8 11°819'05 13°822'53 14°819'45 14°819'45 14°819'45 14°815'12 14°824'19	0°43'40 6.19346 AU 0°-33'-1 4.24986 AU 0°00'31 0°00'36	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 07 j 00:46 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38 -3639 Apr 24 j 19:23 -3639 Jun 06 j 01:37 -3639 Jun 25 j 04:37 -3639 Jul 14 j 07:05 -3639 Nov 09 j 17:49 -3639 Nov 09 j 17:51	2° № 10'36 30° RΩ 27° Ω21'40 0° № 15° № 27'33 17° № 55'17 18° № 18'03 18° № 18'04 21° № 08'22 0° Ω 9° Ω 15'06 4° Ω 21'58 4° Ω 14'21 30° R № 29° № 25'56 0° Ω 17° Ω 52'59 20° Ω 49'07 20° Ω 49'09	4.32529 AU 6.27636 AU 1°07'54 1°07'56 1°17'11 4.22222 AU 0°32'19 0°32'16
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set asc. node conjunction minimum elong behind sun begin	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05 -3645 Nov 01 j 23:12 -3645 Nov 16 j 18:24 -3644 Mar 28 j 00:48 -3644 Mar 28 j 00:48 -3644 Jun 01 j 06:55 -3644 Jun 05 j 13:40 -3644 Jun 05 j 13:40 -3644 Jun 05 j 05:23 -3644 Jun 05 j 05:23 -3644 Jun 05 j 05:23 -3644 Jun 05 j 21:57 -3644 Jun 05 j 21:55	0°Y 8°Y23'52 11°Y30'33 11°Y30'35 11°Y48'27 14°Y36'53 0°8 3°800'51 30°RY 27°Y59'32 28°Y03'49 22°Y56'44 0°8 11°819'05 13°822'53 14°819'45 14°815'12 14°824'19 14°824'17	0°43'40 6.19346 AU 0°-33'-1 4.24986 AU	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 07 j 00:46 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38 -3639 Apr 24 j 19:23 -3639 Apr 25 j 19:13 -3639 Jun 06 j 01:37 -3639 Jun 25 j 04:37 -3639 Jun 25 j 04:37 -3639 Oct 28 j 02:36 -3639 Nov 09 j 17:49 -3639 Nov 09 j 17:51 -3639 Nov 08 j 18:54	2° m 10'36 30° R Ω 27° Ω 21'40 0° m 15° m 27'33 17° m 55'17 18° m 18'03 18° m 18'04 21° m 08'22 0° Ω 9° Ω 15'06 4° Ω 21'58 4° Ω 14'21 30° R m 29° m 25'56 0° Ω 17° Ω 52'59 20° Ω 49'07 20° Ω 49'09 20° Ω 35'46	4.32529 AU 6.27636 AU 1°07'54 1°07'56 1°17'11 4.22222 AU 0°32'19
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set asc. node conjunction minimum elong behind sun begin behind sun end max. Earth dist.	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05 -3645 Nov 01 j 23:12 -3645 Nov 17 j 07:07 -3645 Nov 16 j 18:24 -3644 Jan 16 j 10:14 -3644 Mar 28 j 00:48 -3644 Jun 01 j 06:55 -3644 Jun 05 j 13:40 -3644 Jun 05 j 13:40 -3644 Jun 05 j 13:40 -3644 Jun 05 j 15:23 -3644 Jun 05 j 21:57 -3644 Jun 05 j 21:57 -3644 Jun 08 j 14:21	0°Y 8°Y23'52 11°Y30'33 11°Y48'27 14°Y36'53 0°8 3°800'51 30°8Y 27°Y59'32 28°Y03'49 22°Y56'44 0°8 11°819'05 13°822'53 14°819'45 14°819'45 14°824'17 15°8	0°43'40 6.19346 AU 0°-33'-1 4.24986 AU 0°00'31 0°00'36	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 07 j 00:46 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38 -3639 Apr 24 j 19:23 -3639 Apr 25 j 19:13 -3639 Jun 06 j 01:37 -3639 Jun 25 j 04:37 -3639 Jul 14 j 07:05 -3639 Oct 28 j 02:36 -3639 Nov 09 j 17:49 -3639 Nov 09 j 17:51 -3639 Nov 08 j 18:54 -3639 Nov 08 j 18:54	2° m 10'36 30° R	4.32529 AU 6.27636 AU 1°07'54 1°07'56 1°17'11 4.22222 AU 0°32'19 0°32'16
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set asc. node conjunction minimum elong behind sun begin behind sun end	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05 -3645 Nov 01 j 23:12 -3645 Nov 17 j 07:07 -3645 Nov 16 j 18:24 -3644 Jan 16 j 10:14 -3644 Mar 28 j 00:48 -3644 Jun 01 j 06:55 -3644 Jun 05 j 13:40 -3644 Jun 05 j 13:40 -3644 Jun 05 j 13:40 -3644 Jun 05 j 21:57 -3644 Jun 05 j 21:57 -3644 Jun 08 j 14:21 -3644 Jun 19 j 02:27	0°Y 8°Y23'52 11°Y30'33 11°Y48'27 14°Y36'53 0°8 3°800'51 30°8Y 27°Y59'32 28°Y03'49 22°Y56'44 0°8 11°819'05 13°822'53 14°819'45 14°819'45 14°824'17 15°8 17°819'10	0°43'40 6.19346 AU 0°-33'-1 4.24986 AU 0°00'31 0°00'36	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38 -3639 Apr 24 j 19:23 -3639 Apr 25 j 19:13 -3639 Jun 06 j 01:37 -3639 Jun 25 j 04:37 -3639 Jun 25 j 04:37 -3639 Oct 28 j 02:36 -3639 Nov 09 j 17:49 -3639 Nov 09 j 17:51 -3639 Nov 08 j 18:54 -3639 Nov 08 j 18:54 -3639 Nov 22 j 09:46 -3639 Dec 20 j 03:11	2° m 10'36 30° R	4.32529 AU 6.27636 AU 1°07'54 1°07'56 1°17'11 4.22222 AU 0°32'19 0°32'16
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set asc. node conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05 -3645 Nov 17 j 07:07 -3645 Nov 16 j 18:24 -3644 Jan 16 j 10:14 -3644 Mar 28 j 00:48 -3644 Jun 01 j 06:55 -3644 Jun 05 j 13:40 -3644 Jun 05 j 13:40 -3644 Jun 05 j 21:57 -3644 Jun 05 j 21:53 -3644 Jun 08 j 14:21 -3644 Jun 19 j 02:27 -3644 Aug 22 j 20:31	0°Y 8°Y23'52 11°Y30'33 11°Y48'27 14°Y36'53 0°8 3°800'51 30°8Y 27°Y59'32 28°Y03'49 22°Y56'44 0°8 11°819'05 13°822'53 14°819'45 14°819'45 14°824'17 15°8 17°819'10 0°II	0°43'40 6.19346 AU 0°-33'-1 4.24986 AU 0°00'31 0°00'36	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38 -3639 Apr 24 j 19:23 -3639 Apr 25 j 19:13 -3639 Jun 06 j 01:37 -3639 Jun 25 j 04:37 -3639 Jun 25 j 04:37 -3639 Oct 28 j 02:36 -3639 Nov 09 j 17:51 -3639 Nov 09 j 17:51 -3639 Nov 08 j 18:54 -3639 Nov 08 j 18:54 -3639 Nov 02 j 09:46 -3639 Dec 20 j 03:11 -3638 Mar 30 j 06:49	2° m 10'36 30° R	4.32529 AU 6.27636 AU 1°07'54 1°07'56 1°17'11 4.22222 AU 0°32'19 0°32'16 6.16580 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set asc. node conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05 -3645 Nov 01 j 23:12 -3645 Nov 17 j 07:07 -3645 Nov 16 j 18:24 -3644 Jan 16 j 10:14 -3644 Mar 28 j 00:48 -3644 May 22 j 22:35 -3644 Jun 05 j 13:40 -3644 Jun 05 j 13:40 -3644 Jun 05 j 21:57 -3644 Jun 05 j 21:53 -3644 Jun 08 j 14:21 -3644 Jun 08 j 14:21 -3644 Jun 19 j 02:27 -3644 Aug 22 j 20:31 -3644 Oct 19 j 06:12	0°Y 8°Y23'52 11°Y30'33 11°Y30'35 11°Y48'27 14°Y36'53 0°8 3°800'51 30°RY 27°Y59'32 28°Y03'49 22°Y56'44 0°8 11°819'05 13°822'53 14°819'45 14°819'45 14°824'17 15°8 17°819'10 0°II 4°II51'40	0°43'40 6.19346 AU 0°-33'-1 4.24986 AU 0°00'31 0°00'36 6.30238 AU	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38 -3639 Apr 24 j 19:23 -3639 Apr 25 j 19:13 -3639 Jun 06 j 01:37 -3639 Jun 25 j 04:37 -3639 Jul 14 j 07:05 -3639 Oct 28 j 02:36 -3639 Nov 09 j 17:51 -3639 Nov 09 j 17:51 -3639 Nov 08 j 18:54 -3639 Nov 08 j 18:54 -3639 Nov 22 j 09:46 -3639 Nov 22 j 09:46 -3638 Mar 30 j 06:49 -3638 Mar 30 j 06:36	2° m 10'36 30° R	4.32529 AU 6.27636 AU 1°07'54 1°07'56 1°17'11 4.22222 AU 0°32'19 0°32'16 6.16580 AU 0°13'04
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set asc. node conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise	-3645 Mar 11 j 01:51 -3645 Apr 19 j 02:11 -3645 Apr 19 j 02:11 -3645 May 02 j 20:44 -3645 May 02 j 20:48 -3645 May 04 j 04:22 -3645 May 16 j 15:04 -3645 Aug 05 j 16:10 -3645 Sep 18 j 21:05 -3645 Nov 17 j 07:07 -3645 Nov 16 j 18:24 -3644 Jan 16 j 10:14 -3644 Mar 28 j 00:48 -3644 Jun 01 j 06:55 -3644 Jun 05 j 13:40 -3644 Jun 05 j 13:40 -3644 Jun 05 j 21:57 -3644 Jun 05 j 21:53 -3644 Jun 08 j 14:21 -3644 Jun 19 j 02:27 -3644 Aug 22 j 20:31	0°Y 8°Y23'52 11°Y30'33 11°Y48'27 14°Y36'53 0°8 3°800'51 30°8Y 27°Y59'32 28°Y03'49 22°Y56'44 0°8 11°819'05 13°822'53 14°819'45 14°819'45 14°824'17 15°8 17°819'10 0°II	0°43'40 6.19346 AU 0°-33'-1 4.24986 AU 0°00'31 0°00'36	min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-3640 Mar 23 j 05:36 -3640 Apr 10 j 02:53 -3640 May 23 j 06:47 -3640 Jul 04 j 23:16 -3640 Sep 26 j 04:08 -3640 Oct 08 j 16:46 -3640 Oct 08 j 16:49 -3640 Oct 08 j 16:49 -3640 Oct 21 j 04:47 -3640 Dec 01 j 14:36 -3639 Feb 22 j 17:38 -3639 Apr 24 j 19:23 -3639 Apr 25 j 19:13 -3639 Jun 06 j 01:37 -3639 Jun 25 j 04:37 -3639 Jun 25 j 04:37 -3639 Oct 28 j 02:36 -3639 Nov 09 j 17:51 -3639 Nov 09 j 17:51 -3639 Nov 08 j 18:54 -3639 Nov 08 j 18:54 -3639 Nov 02 j 09:46 -3639 Dec 20 j 03:11 -3638 Mar 30 j 06:49	2° m 10'36 30° R	4.32529 AU 6.27636 AU 1°07'54 1°07'56 1°17'11 4.22222 AU 0°32'19 0°32'16 6.16580 AU

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, page 24 Attention, astronomical year style is used: The year -3638 in astronomical counting style is the year 3639 BCE in historical counting style.

Attention, astronom	ical year style is used: Tl	ne year -3638	in astronomical co	unting style is the year	3639 BCE in historical of	counting style	
direct	-3638 Jul 29 j 08:04	2°M58'48			-3632 May 23 j 18:59	15° 8	
desc. node	-3638 Aug 10 j 03:52	3°M12'26		evening set	-3632 May 27 j 14:04	15° 8 49'50	
	-3638 Oct 31 j 13:41						
evening set	-3638 Nov 30 j 14:28	21°M50'38		conjunction	-3632 Jun 10 j 04:12		
				minimum elong	-3632 Jun 10 j 04:10		0°06'51
conjunction	-3638 Dec 13 j 11:06			behind sun begin	-3632 Jun 09 j 20:31		
minimum elong	-3638 Dec 13 j 11:05		0°15'27	behind sun end	-3632 Jun 10 j 11:50		
behind sun begin	-3638 Dec 13 j 08:32			max. Earth dist.	-3632 Jun 10 j 07:31		6.31302 AU
behind sun end	-3638 Dec 13 j 13:37		6 0 6 5 0 5 A X X	morning rise	-3632 Jun 23 j 16:04		
max. Earth dist.	-3638 Dec 13 j 11:18		6.06525 AU	. 1	-3632 Aug 01 j 21:58	0°II	
morning rise	-3638 Dec 26 j 10:22	2/°1163/'32 0° √ 7		retrograde opposition	-3632 Oct 23 j 14:06	9° Ⅱ 16'19 4° Ⅱ 19'32	0041110
retrograde	-3637 Jan 04 j 02:53 -3637 May 06 j 05:59			min. Earth dist.	-3632 Dec 22 j 06:34 -3632 Dec 22 j 12:11		4.35319 AU
opposition	-3637 Jul 05 j 21:30		0°-58'-40	min. Earth dist.	-3631 Jan 30 j 23:14		4.33319 AU
min. Earth dist.	-3637 Jul 05 j 10:29		4.03039 AU	direct	-3631 Feb 21 j 19:21		
direct	-3637 Sep 02 j 16:14		4.03037710	direct	-3631 Mar 15 j 20:20	0°II	
evening set	-3636 Jan 04 j 22:40			evening set	-3631 Jun 29 j 14:13		
	-3636 Jan 16 j 16:32						
		• •		conjunction	-3631 Jul 12 j 20:04	20° Ⅱ 09'51	0°48'15
conjunction	-3636 Jan 18 j 02:36	0°る20'21	0°-58'-40	minimum elong	-3631 Jul 12 j 20:01		0°48'23
minimum elong	-3636 Jan 18 j 02:33	0° る 20'19	0°58'49	max. Earth dist.	-3631 Jul 12 j 00:49		6.38160 AU
max. Earth dist.	-3636 Jan 19 j 06:33	0° る 37'03	6.01058 AU	morning rise	-3631 Jul 25 j 22:29		
morning rise	-3636 Jan 31 j 09:40	3°₹30'30		C	-3631 Aug 28 j 05:58	0ಂತ	
retrograde	-3636 Jun 11 j 15:10	23° る 50'59		retrograde	-3631 Nov 23 j 07:33	10°9504'08	
opposition	-3636 Aug 10 j 17:08	18° ප් 47'17	-1°-49'-55	opposition	-3630 Jan 22 j 10:47	5° © 10'37	1°32'56
min. Earth dist.	-3636 Aug 09 j 16:27	18° る 55'37	4.00935 AU	min. Earth dist.	-3630 Jan 23 j 05:54	5° 5 04'25	4.39694 AU
direct	-3636 Oct 07 j 18:37	13° る 52'45		direct	-3630 Mar 25 j 19:25	0°507'40	
	-3635 Jan 26 j 22:05	0° ≈		evening set	-3630 Jul 31 j 07:58	17° © 59'21	
evening set	-3635 Feb 09 j 16:51	3° ≈ 12'40		max. Earth dist.	-3630 Aug 11 j 16:05	20° 5 28'26	6.39605 AU
conjunction	-3635 Feb 23 j 04:01	6°≈23'36	-1°-20'-18	conjunction	-3630 Aug 13 j 04:37	2006/10121	1°15'28
minimum elong	-3635 Feb 23 j 04:01	6°≈23'35		minimum elong	-3630 Aug 13 j 04:35		
max. Earth dist.	-3635 Feb 25 j 00:45		6.02355 AU	morning rise	-3630 Aug 25 j 22:14		1 13 30
morning rise	-3635 Mar 08 j 18:18	9°≈36'01	0.02333710	morning rise	-3630 Sep 25 j 05:10	0° Ω	
morning risc	-3635 Apr 01 j 07:18			retrograde	-3630 Dec 24 j 10:36		
retrograde	-3635 Jul 17 j 22:59			opposition	-3629 Feb 22 j 23:39		1°58'30
min. Earth dist.	-3635 Sep 14 j 08:45		4.05615 AU	min. Earth dist.	-3629 Feb 24 j 05:11		4.38253 AU
opposition	-3635 Sep 15 j 15:06			direct	-3629 Apr 26 j 16:01		
direct	-3635 Nov 12 j 18:06				-3629 Aug 14 j 11:51		
	-3634 Feb 06 j 18:47	0° ∀		evening set	-3629 Aug 31 j 09:35		
evening set	-3634 Mar 18 j 18:05	8°){ 47'46		max. Earth dist.	-3629 Sep 11 j 04:34	21° Ω 04'37	6.35273 AU
conjunction	-3634 Apr 01 j 10:59	11°) 57'49	-1°-11'-42	conjunction	-3629 Sep 13 j 00:00		1°21'33
minimum elong	-3634 Apr 01 j 11:02	11° 米 57'51	1°11'45	minimum elong	-3629 Sep 13 j 00:01		1°21'38
max. Earth dist.	-3634 Apr 03 j 07:30		6.09928 AU	morning rise	-3629 Sep 25 j 12:21		
morning rise	-3634 Apr 15 j 05:31				-3629 Oct 22 j 02:04	0° m	
	-3634 Jun 28 j 10:13	0° Υ		retrograde	-3628 Jan 25 j 15:00	11° m 43'54	
retrograde	-3634 Aug 21 j 13:32	4° Υ 24'50		opposition	-3628 Mar 26 j 13:37	6° m 52'11	1°50'58
	-3634 Oct 15 j 03:59	30° ₹	10.041.44	min. Earth dist.	-3628 Mar 27 j 19:37	6° Mp 42'39	4.31336 AU
opposition	-3634 Oct 19 j 23:16	29° H 20'48	-1°-24'-44	direct	-3628 May 27 j 19:12	1° My 53'42	
min. Earth dist.	-3634 Oct 18 j 23:39	29° ∺ 28'51 24° ∺ 20'01	4.15223 AU	evening set	-3628 Sep 30 j 13:26	20° Mp 01'43 22° Mp 31'50	6 26222 411
direct	-3634 Dec 18 j 00:09 -3633 Feb 18 j 03:41	24° π 2001 0° Υ		max. Earth dist.	-3628 Oct 11 j 13:32	22 110 31 30	6.26323 AU
evening set	-3633 Apr 23 j 22:28	13° Y 05'35		conjunction	-3628 Oct 13 j 02:16	22° m 52'47	1°04'03
evening set	-3033 Apr 23 j 22.28	13 1 03 33		minimum elong	-3628 Oct 13 j 02:10	22° m 52'49	1°04'04
conjunction	-3633 May 07 j 17:00	16° Ƴ 11'38	0°-38'-6	morning rise	-3628 Oct 15 j 02:17	25° m 43'45	1 0404
minimum elong	-3633 May 07 j 17:04	16° Υ 11'40	0°38'04	morning 1150	-3628 Nov 13 j 18:22	ე∘ <u>ი</u>	
max. Earth dist.	-3633 May 08 j 22:25	16° Υ 28'13	6.20837 AU	retrograde	-3627 Feb 27 j 13:24	0 — 13° ⊆ 57'08	
morning rise	-3633 May 21 j 10:51	19° Υ 17'09		opposition	-3627 Apr 29 j 15:38	9° ₾ 03'38	1°09'32
	-3633 Jul 12 j 01:42	0°8		min. Earth dist.	-3627 Apr 30 j 14:08	8° £ 56'27	4.20846 AU
retrograde	-3633 Sep 23 j 05:22	7° 8 33'41		direct	-3627 Jun 29 j 21:36	4° £ 08'00	
opposition	-3633 Nov 21 j 16:21	2° 8 32'58	0°-23'-59	evening set	-3627 Nov 01 j 15:46	22° £ 37'35	
min. Earth dist.	-3633 Nov 21 j 05:04	2° 8 36'45	4.26307 AU	max. Earth dist.	-3627 Nov 13 j 10:02	25° ≏ 22'02	6.15253 AU
	-3633 Dec 11 j 14:26	30° ₹ Υ			-		
direct	-3632 Jan 20 j 22:19	27° Y 30'01		conjunction	-3627 Nov 14 j 07:23	25° ≏ 34'30	0°26'06
	-3632 Mar 01 j 18:52	9° 8		minimum elong	-3627 Nov 14 j 07:25	25° ≏ 34'31	0°26'02
asc. node	-3632 Apr 12 j 06:37	6° 8 27'14		morning rise	-3627 Nov 27 j 00:19	28° ≏ 32'15	

-	nical year style is used: The		•	, ·		, .	
rittention, ustronom	-3627 Dec 03 j 08:10	-	in astronomical co	opposition	-3621 Nov 26 j 03:47	7° 8 10'54	
	-3626 Feb 20 j 19:41			min. Earth dist.	-3621 Nov 25 j 19:14		4.27482 AU
retrograde	-3626 Apr 04 j 06:38			direct	-3620 Jan 25 j 14:32	2° 8 07'45	4.27402710
retrograde	-3626 May 17 j 05:53			asc. node	-3620 Feb 20 j 22:23	3° 8 12'02	
opposition	-3626 Jun 04 j 06:38		0°02'59	use. Houe	-3620 May 06 j 22:40		
min. Earth dist.	-3626 Jun 04 j 12:07		4.09962 AU	evening set	-3620 Jun 01 j 07:21		
desc. node	-3626 Jun 20 j 14:59		4.09902 AU	evening set	-3020 Juli 01 j 07.21	20 023 13	
direct	-3626 Aug 03 j 03:40	7°M51'41		conjunction	-3620 Jun 14 j 20:42	23° × 24'22	0°13'04
direct	-3626 Oct 12 j 00:04			minimum elong	-3620 Jun 14 j 20:41		0°13'11
evening set	-3626 Dec 05 j 08:53			behind sun begin	-3620 Jun 14 j 15:59		0 13 11
evening set	-3020 Dec 03 J 08.33	20 11640 10		behind sun end	-3620 Jun 15 j 01:23		
conjunction	-3626 Dec 18 j 06:34	29° M 49'51	0°-21'-59	max. Earth dist.	-3620 Jun 14 j 22:21		6.32304 AU
minimum elong	-3626 Dec 18 j 06:32		0°22'07	morning rise	-3620 Jun 28 j 07:16		0.52504 AU
max. Earth dist.	-3626 Dec 18 j 11:36		6.05590 AU	morning risc	-3620 Jul 15 j 03:08	0°II	
max. Latur dist.	-3626 Dec 18 j 23:38	0° x ⁷	0.03370 AC	retrograde	-3620 Oct 27 j 21:39		
morning rise	-3626 Dec 31 j 06:41	2° × ⁷ 55'03		opposition	-3620 Dec 26 j 16:05	8° ∏ 49'23	0°49'44
retrograde	-3625 May 11 j 10:27			min. Earth dist.	-3620 Dec 26 j 22:33	8° П 47'16	4.36110 AU
opposition	-3625 Jul 10 j 23:21	17° х 53'57	-1°-7'-34	direct	-3619 Feb 26 j 07:12	3° П 45′50	4.30110 AU
min. Earth dist.	-3625 Jul 10 j 23.21	17° 🖈 58'00	4.02455 AU	evening set	-3619 Jul 04 j 03:28		
	,		4.02433 AU	max. Earth dist.	-3619 Jul 16 j 09:16		6.38693 AU
direct	-3625 Sep 07 j 15:30	13 x・0048		max. Earth dist.	-3019 Jul 10 J 09.10	24 H 23 09	0.38093 AU
	-3625 Dec 31 j 09:19	0 3 2° る 15'01			2610 I-1 17:07.40	240T27120	0952100
evening set	-3624 Jan 09 j 22:21	2.012.01		conjunction	-3619 Jul 17 j 07:49		0°53'09
· · · · · · · · · · · ·	2624 I 22:02:10	50=202154	10 21 15	minimum elong	-3619 Jul 17 j 07:46 -3619 Jul 30 j 09:02		0°53'17
conjunction	-3624 Jan 23 j 03:10	5°る23'54 5°る23'52		morning rise		2/°Щ2841 0°9	
minimum elong	-3624 Jan 23 j 03:07			. 1	-3619 Aug 11 j 01:43		
max. Earth dist.	-3624 Jan 24 j 08:59		6.00853 AU	retrograde	-3619 Nov 27 j 16:49		1020110
morning rise	-3624 Feb 05 j 11:26	8°る34'36		opposition	-3618 Jan 26 j 20:41	9°936'15	1°38'18
retrograde	-3624 Jun 16 j 15:46	28°る55'23	10, 521, 54	min. Earth dist.	-3618 Jan 27 j 17:56	9°529'23	4.39973 AU
opposition	-3624 Aug 15 j 17:16			direct	-3618 Mar 30 j 08:25	4°933'31	
min. Earth dist.	-3624 Aug 14 j 14:32		4.01161 AU	evening set	-3618 Aug 04 j 17:30		(20(02 AII
direct	-3624 Oct 12 j 16:56			max. Earth dist.	-3618 Aug 16 j 00:07	24°952'39	6.39603 AU
. ,	-3623 Jan 09 j 03:56	0°≈			2610 4 17:12.00	250612102	1017140
evening set	-3623 Feb 14 j 19:19	8° ≈ 16′05		conjunction	-3618 Aug 17 j 13:09		1°17'40
	262271 20:07.25	110 05100	10.201.51	minimum elong	-3618 Aug 17 j 13:07		1°17'49
conjunction	•	11°≈27'08	-1°-20'-54	morning rise	-3618 Aug 30 j 05:39		
minimum elong	-3623 Feb 28 j 07:25		1°21'02		-3618 Sep 08 j 10:02	0° Ω	
max. Earth dist.	-3623 Mar 02 j 04:29		6.02970 AU		-3618 Dec 22 j 09:12		
morning rise	-3623 Mar 13 j 22:26			retrograde	-3618 Dec 28 j 19:20		
	-3623 Mar 15 j 09:26	15° ≈		•,•	-3617 Jan 04 j 05:30		105010
1	-3623 May 28 j 00:09	0° ∀		opposition	-3617 Feb 27 j 11:17		1°59'26
retrograde	-3623 Jul 22 j 20:41	4° ¥ 40'17		min. Earth dist.	-3617 Feb 28 j 16:08		4.37994 AU
	-3623 Sep 17 j 09:58	30°R≈	106510 177	direct	-3617 May 01 j 02:35	5° Ω 11'34	
min. Earth dist.	-3623 Sep 19 j 05:55	29°≈45'00	4.06540 AU		-3617 Jul 28 j 04:32		
opposition	-3623 Sep 20 j 11:04	29°≈35'03	-1°-56'-35	evening set	-3617 Sep 04 j 17:13		6 2 4 7 7 5 A X X
direct	-3623 Nov 17 j 17:06	24°≈36'56		max. Earth dist.	-3617 Sep 15 j 12:48	25° 31 30'27	6.34775 AU
	-3622 Jan 16 j 02:30	0° ∀			2/15/2 15:0/ 50	250 05 402	1000100
evening set	-3622 Mar 23 j 19:41	13°) 44′06		conjunction	-3617 Sep 17 j 06:59		1°20'29
	2622 4 06:12:1=	1601/5015	10.01.17	minimum elong	-3617 Sep 17 j 07:00		1°20'33
conjunction	-3622 Apr 06 j 13:17	16° ¥ 53'54		morning rise	-3617 Sep 29 j 18:52		
minimum elong	-3622 Apr 06 j 13:20	16° ¥ 53'56	1°08'19	, ,	-3617 Oct 05 j 17:03	0°M)	
max. Earth dist.	-3622 Apr 08 j 09:24	17° ¥ 19'21	6.11090 AU	retrograde	-3616 Jan 30 j 04:41	16° Tp 12'31	1047105
morning rise	-3622 Apr 20 j 08:00	20°) €04'07		opposition	-3616 Mar 31 j 04:12		1°47'05
	-3622 Jun 05 j 11:16	0° Υ		min. Earth dist.	-3616 Apr 01 j 10:27		4.30606 AU
retrograde	-3622 Aug 26 j 04:55	9° ℃ 13'09	10.151.00	direct	-3616 Jun 01 j 09:08	6° Tp 22'37	
opposition	-3622 Oct 24 j 14:12	4°Υ09'28	-1°-17'-22	evening set	-3616 Oct 04 j 21:20		605404 AXX
min. Earth dist.	-3622 Oct 23 j 15:26	4° Υ 17'13	4.16495 AU	max. Earth dist.	-3616 Oct 15 j 21:50	2/°IIJ01'55	6.25421 AU
t' .	-3622 Nov 29 j 22:34	30° ₹ ₩			2010 0 + 15:10 00	270 m 22111	0050153
direct	-3622 Dec 22 j 17:28	29° ₩ 08'18		conjunction	-3616 Oct 17 j 10:09		0°59'52
-	-3621 Jan 14 j 19:28	0°Υ 17° Υ 51110		minimum elong	-3616 Oct 17 j 10:12		0°59'53
evening set	-3621 Apr 28 j 20:35	17° Y 51'10			-3616 Oct 28 j 21:44	0° ೧ 14!11	
	262134 12:11:5	200002532	00.221.0	morning rise	-3616 Oct 29 j 22:41	0° £ 14'11	
conjunction	-3621 May 12 j 14:46	20° Y 56'34	0°-32'-9	retrograde	-3615 Mar 04 j 05:30	18° Ω 32'54	1001124
minimum elong	-3621 May 12 j 14:49	20° Y 56'36	0°32'07	opposition	-3615 May 04 j 09:20	13° £ 39'01	1°01'34
max. Earth dist.	-3621 May 13 j 15:32	21°Υ10'30	6.22118 AU	min. Earth dist.	-3615 May 05 j 05:30	13° Ω 32'34	4.19817 AU
morning rise	-3621 May 26 j 08:17			direct	-3615 Jul 04 j 11:13	8° ≏ 43'42	
	2/21 T 22:21 52	\sim			2(15)1 0(102.10	270 C 1 CIAA	
retrograde	-3621 Jun 22 j 21:52 -3621 Sep 27 j 16:44	0°8 12°811'00		evening set	-3615 Nov 06 j 02:19 -3615 Nov 17 j 21:03	27° £ 15′00 0° M	

-	-		•	. ,,	r 3616 BCE in historical of	, .	
conjunction	-3615 Nov 18 j 18:38	0°M12'38		morning rise	-3609 May 31 j 04:47		
minimum elong	-3615 Nov 18 j 18:40	0°ML12'39			-3609 Jun 05 j 20:09	0°8	
max. Earth dist.	-3615 Nov 18 j 00:56	0°ML02'16	6.14196 AU		-3609 Aug 29 j 09:06	_	
morning rise	-3615 Dec 01 j 12:12	3°ML11'11	0.14170710	retrograde	-3609 Oct 02 j 02:57		
morning 1130	-3614 Jan 25 j 20:38			retrograde	-3609 Nov 04 j 16:05		
retrograde	-3614 Apr 09 j 05:47			opposition	-3609 Nov 30 j 14:41		0°-5'-14
desc. node	-3614 May 02 j 16:20			min. Earth dist.	-3609 Nov 30 j 07:24		4.28703 AU
opposition	-3614 Jun 09 j 03:34	17°M29'57	0°-6'-50	asc. node	-3609 Dec 31 j 16:32	8° 8 07'08	4.20703 AC
min. Earth dist.	-3614 Jun 09 j 08:10	17°ML28'27	4.08948 AU	direct	-3608 Jan 30 j 05:04	6° 8 45'06	
mm. Latti dist.	-3614 Jun 29 j 08:42		4.00740 AC	direct	-3608 Apr 18 j 02:38		
direct	-3614 Aug 07 j 21:30	12°M36'33		evening set	-3608 Jun 05 j 23:56		
direct	-3614 Sep 15 j 16:34			evening set	-5006 Juli 05 j 25.50	24 03940	
	-3614 Dec 03 j 09:27	0° ⊼ ¹		conjunction	-3608 Jun 19 j 12:04	27° × 57'57	0°19'17
evening set	-3614 Dec 10 j 00:23	1° × ⁷ 33'30		minimum elong	-3608 Jun 19 j 12:02		0°19'24
evening set	-3014 Dec 10 J 00.23	1 × 33 30		max. Earth dist.	-3608 Jun 19 j 09:28		6.33405 AU
conjunction	-3614 Dec 22 j 22:50	4° ∡ ³37'56	0°-28'-17	max. Larm dist.	-3608 Jun 28 j 17:49	0°II	0.55405 AO
minimum elong	-3614 Dec 22 j 22:48	4° ×7 37 55	0°28'26	morning rise	-3608 Jul 02 j 21:36	0° П 54'40	
max. Earth dist.	-3614 Dec 23 j 05:31	4° ₹ 41'55	6.04704 AU	•	-3608 Nov 01 j 05:26		
	•	4 x ·41 33 7° x 44'01	0.04/04 AU	retrograde opposition	-3608 Dec 31 j 01:03		0°57'49
morning rise	-3613 Jan 05 j 00:09			11	-3608 Dec 31 j 01:03		4.37000 AU
retrograde	-3613 May 16 j 09:16		-1°-15'-44	min. Earth dist. direct		13 П 1443 8° П 14'03	4.37000 AU
opposition	-3613 Jul 15 j 21:29				-3607 Mar 02 j 20:40		
min. Earth dist.	-3613 Jul 15 j 06:40		4.01811 AU	evening set	-3607 Jul 08 j 14:41	20°Щ10'41	
direct	-3613 Sep 12 j 09:04	17° ∡ 754'08		. ,.	2607.1.1.21:17.54	200TO244	0057142
. ,	-3613 Dec 14 j 13:23	0°る		conjunction	-3607 Jul 21 j 17:54		0°57'42
evening set	-3612 Jan 14 j 19:26	7° る 10'48		minimum elong	-3607 Jul 21 j 17:50		0°57'50
	2012 1 2010110	100-700110	10.51.14	max. Earth dist.	-3607 Jul 20 j 18:24		6.39270 AU
conjunction	-3612 Jan 28 j 01:19				-3607 Jul 26 j 02:29	0.22	
minimum elong	-3612 Jan 28 j 01:15	10°る20'16		morning rise	-3607 Aug 03 j 17:36	1°953'05	
max. Earth dist.	-3612 Jan 29 j 09:16		6.00501 AU	retrograde	-3607 Dec 01 j 22:29		
morning rise	-3612 Feb 10 j 10:32			opposition	-3606 Jan 31 j 05:26		1°43'04
	-3612 May 01 j 20:36	0° ≈		min. Earth dist.	-3606 Feb 01 j 03:18		4.40190 AU
retrograde	-3612 Jun 21 j 15:47	3°≈53'31		direct	-3606 Apr 03 j 18:12	8°956'43	
	-3612 Aug 11 j 19:32			evening set	-3606 Aug 09 j 01:28		
min. Earth dist.	-3612 Aug 19 j 11:51			max. Earth dist.	-3606 Aug 20 j 04:38	29°5513'21	6.39406 AU
opposition	-3612 Aug 20 j 14:30		-1°-56'-58				
direct	-3612 Oct 17 j 14:27			conjunction	-3606 Aug 21 j 19:53		1°19'27
_	-3612 Dec 19 j 13:38	0° ≈		minimum elong	-3606 Aug 21 j 19:52		1°19'34
evening set	-3611 Feb 19 j 19:55				-3606 Aug 23 j 17:17		
	-3611 Feb 27 j 07:08	15° ≈		morning rise	-3606 Sep 03 j 11:34	2° Ω 21'58	
					-3606 Nov 07 j 18:59		
conjunction	-3611 Mar 05 j 09:07	16° ≈ 26′01	-1°-20'-54	retrograde	-3605 Jan 02 j 05:42	19° Ω 27'27	
minimum elong	-3611 Mar 05 j 09:07	16° ≈ 26'01	1°21'00		-3605 Feb 28 j 18:37		
max. Earth dist.	-3611 Mar 07 j 07:46	16° ≈ 53'30	6.03311 AU	opposition	-3605 Mar 03 j 22:20		1°59'46
morning rise	-3611 Mar 19 j 00:56	19° ≈ 38'38		min. Earth dist.	-3605 Mar 05 j 04:56		4.37381 AU
	-3611 May 05 j 04:14	0°)		direct	-3605 May 05 j 14:46	9° Ω 35'24	
retrograde	-3611 Jul 27 j 17:10	9°) 35′48			-3605 Jul 07 j 15:31	15° Ω	
min. Earth dist.	-3611 Sep 24 j 00:12	4°) 40′39	4.07210 AU	evening set	-3605 Sep 09 j 00:06		
opposition	-3611 Sep 25 j 05:22	4°) 30'41	-1°-53'-22	max. Earth dist.	-3605 Sep 19 j 19:14		6.33782 AU
	-3611 Nov 06 j 01:20	30°R≈			-3605 Sep 20 j 03:35	0° m	
direct	-3611 Nov 22 j 11:51	29°≈32'12					
	-3611 Dec 09 j 01:40	0° ∺		conjunction	-3605 Sep 21 j 13:33	0° mp 19'02	1°18'58
evening set	-3610 Mar 28 j 20:21	18°) 38′25		minimum elong	-3605 Sep 21 j 13:34	0° m 19′03	1°19'03
				morning rise	-3605 Oct 04 j 01:10	3° Mp 06'40	
conjunction	-3610 Apr 11 j 14:19	21°) 48′02	-1°-4'-20	retrograde	-3604 Feb 03 j 17:36	20° m 43'03	
minimum elong	-3610 Apr 11 j 14:22	21°) 48′04	1°04'23	opposition	-3604 Apr 04 j 19:24	15° m 51'00	1°42'36
max. Earth dist.	-3610 Apr 13 j 07:36	22°) 11′47	6.12038 AU	min. Earth dist.	-3604 Apr 06 j 00:08	15° Mp 41'52	4.29288 AU
morning rise	-3610 Apr 25 j 09:28	24°) ₹57'58		direct	-3604 Jun 05 j 20:31	10° m 53'16	
	-3610 May 17 j 22:22	0° Υ		evening set	-3604 Oct 09 j 06:21	29° m 04'31	
retrograde	-3610 Aug 30 j 19:16	14° Y 00'35			-3604 Oct 13 j 07:44	0∘ ত	
min. Earth dist.	-3610 Oct 28 j 07:24	9° ℃ 04'29	4.17611 AU	max. Earth dist.	-3604 Oct 20 j 09:16	1° ≏ 37'06	6.23894 AU
opposition	-3610 Oct 29 j 04:42	8° Y 57'14	-1°-9'-32				
direct	-3610 Dec 27 j 11:46	3° Y 55'42		conjunction	-3604 Oct 21 j 19:25	1° Ω 56'41	0°55'18
evening set	-3609 May 03 j 17:57	22° Y 36′14		minimum elong	-3604 Oct 21 j 19:28	1° ≏ 56'43	0°55'17
				morning rise	-3604 Nov 03 j 08:22	4° Ω 49'02	
conjunction	-3609 May 17 j 12:01		0°-26'-1	retrograde	-3603 Mar 09 j 03:44		
minimum elong	-3609 May 17 j 12:04		0°25'59	opposition	-3603 May 09 j 06:11	18° ≏ 21'15	0°53'03
max. Earth dist.	-3609 May 18 j 11:45	25° Υ' 54'20	6.23349 AU	min. Earth dist.	-3603 May 10 j 01:40	18° ≏ 15'01	4.18158 AU

Attention, astronomical year style is used: The year -3603 in astronomical counting style is the year 3604 BCE in historical counting style. -3603 Jul 09 j 04:52 13°**Ω**26'14 -3597 May 20 j 19:00 direct 0°8 -3603 Nov 01 j 22:42 0°M -3603 Nov 10 j 16:29 -3597 May 22 j 07:10 0°820'12 0°-19'-51 2°M01'21 evening set conjunction 0°**8**20'13 0°19'48 -3597 May 22 j 07:12 minimum elong -3597 May 23 j 02:36 conjunction -3603 Nov 23 j 09:31 5°ML00'00 0°13'20 max. Earth dist. 0°**8**31'03 6.25303 AU -3603 Nov 23 j 09:32 -3597 Jun 04 j 23:14 minimum elong 5°M00'01 0°13'15 morning rise 3°**8**23'01 -3603 Nov 23 j 04:43 behind sun begin 4°M57'12 -3597 Aug 01 j 08:45 15°**8** 5°ML02'49 behind sun end -3603 Nov 23 j 14:20 retrograde -3597 Oct 06 j 09:25 21°**8**17'24 max. Earth dist. -3603 Nov 22 j 17:47 4°M50'47 6.12564 AU asc. node -3597 Nov 11 j 20:20 19°**8**11'29 morning rise -3603 Dec 06 j 04:09 7°M59'42 opposition -3597 Dec 04 j 23:08 16°**8**18'11 0°03'53 -3602 Jan 06 j 05:50 15°M min. Earth dist. -3597 Dec 04 j 18:05 16°819'52 4.30476 AU -3597 Dec 14 j 19:59 desc. node -3602 Mar 13 j 00:50 25°M48'13 15°Ŗ**႘** -3596 Feb 03 j 18:33 11°814'44 retrograde -3602 Apr 14 j 07:27 27° M23'56 direct opposition -3602 Jun 14 j 04:59 22°M26'10 0°-17'-2 -3596 Mar 25 j 21:37 15°8 min. Earth dist. -3602 Jun 14 j 06:11 22°M25'47 4.07496 AU evening set -3596 Jun 10 j 12:31 29°824'58 direct -3602 Aug 12 j 17:00 17°M32'56 -3596 Jun 13 j 04:41 $\mathbb{I}^{\circ 0}$ -3602 Nov 16 j 07:44 0°**∡**¹ evening set -3602 Dec 14 j 21:36 6°**∡**³33'55 conjunction -3596 Jun 23 j 23:35 2°**Ⅲ**22'05 minimum elong -3596 Jun 23 j 23:33 2°**II**22'04 0°25'17 conjunction -3602 Dec 27 j 21:04 9°**∡**39'18 0°-34'-42 max. Earth dist. -3596 Jun 23 j 18:20 2°**Ⅱ**19'12 6.34856 AU minimum elong -3602 Dec 27 j 21:02 9°**х** 39′16 0°34'51 morning rise -3596 Jul 07 j 07:37 5°**Ⅱ**17'38 max. Earth dist. -3602 Dec 28 i 07:44 9°**∡**¹45'39 6.03567 AU retrograde -3596 Nov 05 i 08:53 22°**Ⅱ**31'18 morning rise -3601 Jan 09 i 23:27 12°**х** 46′21 opposition -3595 Jan 04 i 06:21 17°**II**35'57 1°05'16 -3601 Apr 07 i 14:26 0°ರ min. Earth dist. -3595 Jan 04 i 17:30 17°**I**I32'18 4.38030 AU retrograde -3601 May 21 j 15:33 2°る56'26 direct -3595 Mar 07 j 05:24 12°**Ⅲ**32'26 -3601 Jul 04 j 20:41 30°R ✓ -3595 Jul 10 j 20:39 000 -3601 Jul 20 j 08:52 28° ₹ 00'13 4.01127 AU -3595 Jul 12 j 22:02 0°926'46 min. Earth dist. evening set -3601 Jul 21 j 01:18 27°**х** 54'44 -1°-23'-46 opposition -3601 Sep 17 j 10:56 23° ₹ 01'21 -3595 Jul 25 j 23:48 3°518'03 1°01'45 direct conjunction -3601 Nov 24 j 06:33 0°る -3595 Jul 25 j 23:45 1°01'54 minimum elong 3°9518'01 -3600 Jan 19 j 22:36 12°**♂**20'20 -3595 Jul 24 j 19:35 max. Earth dist. 3°902'36 6.39766 AU evening set -3595 Aug 07 j 22:24 6°907'44 morning rise -3595 Dec 06 j 03:14 23°505'59 -3600 Feb 02 j 05:38 15°る30'24 -1°-10'-55 conjunction retrograde -3600 Feb 02 j 05:35 15° ₹30'22 1°11'05 -3594 Feb 04 j 10:57 18°513'23 1°47'07 minimum elong opposition -3600 Feb 03 j 17:39 15°중51'53 6.00341 AU -3594 Feb 05 j 11:34 18°905'27 max. Earth dist. min. Earth dist. 4.40143 AU -3600 Feb 15 j 15:54 18°₹42'11 -3594 Apr 08 j 01:55 13°5010'59 morning rise direct -3600 Apr 06 j 21:02 0°≈ -3594 Aug 08 j 13:24 0 $^{\circ}$ Ω retrograde -3600 Jun 26 j 20:08 9°≈03'35 evening set -3594 Aug 13 j 05:58 1°**Ω**01'21 -3600 Aug 25 j 16:39 3°≈59'04 -1°-59'-17 max. Earth dist. -3594 Aug 24 j 07:39 $3^{\circ}\Omega 27'28$ 6.38796 AU opposition min. Earth dist. -3600 Aug 24 j 12:22 4°≈08'39 4.01592 AU -3600 Sep 29 j 03:46 30°R♂ conjunction -3594 Aug 25 j 23:40 3°**Ω**49'34 1°20'44 -3600 Oct 22 j 15:34 29°る03'28 -3594 Aug 25 j 23:39 3°**Ω**49'33 1°20'50 direct minimum elong -3600 Nov 15 j 05:09 -3594 Sep 07 j 14:25 6°**£**36′27 morning rise -3599 Feb 10 j 09:58 15°≈ -3594 Oct 17 j 23:01 15°**Ω** -3599 Feb 25 j 01:22 18°≈23'10 -3593 Jan 06 j 12:29 23°**Ω**45'34 evening set retrograde -3593 Mar 08 j 07:14 $18^{\circ}\Omega$ 54'06 1° 59'28 opposition -3599 Mar 10 j 15:15 21°≈34'25 -1°-20'-19 conjunction min. Earth dist. $-3593 \text{ Mar } 09 \text{ j } 13:58 \quad 18^{\circ} \Omega 44'19 \quad 4.36256 \text{ AU}$ minimum elong -3599 Mar 10 j 15:16 21°≈34'26 1°20'24 -3593 Apr 12 j 14:52 15°RΩ max. Earth dist. -3599 Mar 12 j 13:43 22°≈01'43 6.04309 AU direct $-3593 \text{ May } 09 \text{ j } 21:28 \quad 13^{\circ} \Omega 53'57$ -3599 Mar 24 i 07:52 24°≈46'53 -3593 Jun 06 j 05:26 15°**Ω** morning rise -3599 Apr 16 j 05:12 0°**₩** -3593 Sep 04 j 18:47 0° m -3599 Aug 01 j 13:29 14°\mathbf{37}'13 -3593 Sep 13 j 05:26 retrograde evening set 1° m 52'08 -3599 Sep 28 j 20:53 9°**¥**42'09 4.08667 AU max. Earth dist. -3593 Sep 23 j 23:28 min. Earth dist. 4° m 16'45 6.32217 AU opposition -3599 Sep 30 j 02:05 9°**)**(32'09 -1°-49'-16 4°**)**€33'13 -3593 Sep 25 j 18:30 direct -3599 Nov 27 j 11:26 conjunction 4° m 40'58 1°17'03 evening set -3598 Apr 02 j 22:38 23° **∺**35'18 minimum elong -3593 Sep 25 j 18:32 4° m/40'59 1°17'07 morning rise -3593 Oct 08 j 06:10 7° m/29'14 -3598 Apr 16 j 17:01 26° ★44'16 0°-59'-59 -3592 Feb 08 j 09:59 25° m 13'10 conjunction retrograde -3598 Apr 16 j 17:05 26° **★** 44'18 -3592 Apr 09 j 10:33 20° m 20'57 minimum elong 1°00'00 opposition 1°37'36 -3598 Apr 18 j 10:09 27°**米**07'50 -3592 Apr 10 j 15:39 20° m 11'41 max. Earth dist. 6.13853 AU min. Earth dist. 4.27368 AU morning rise -3598 Apr 30 j 11:57 29° **★**53'19 direct -3592 Jun 10 j 09:08 15° Mp 23'34 -3598 Apr 30 j 23:43 0° γ -3592 Sep 27 j 09:14 0∘**⊽** retrograde -3598 Sep 04 j 09:28 18°**Y**46'04 evening set -3592 Oct 13 j 15:52 3°**△**39'41 opposition -3598 Nov 02 j 18:44 13°**Υ**43'09 -1°-1'-17 max. Earth dist. -3592 Oct 24 j 21:02 6°**₽**14'16 6.21795 AU min. Earth dist. -3598 Nov 01 j 23:05 13°**Υ**49'49 4.19580 AU -3597 Jan 01 j 06:21 8°**Ƴ**41'21 -3592 Oct 26 j 05:27 6°**£**32'56 direct conjunction 0°50'22 -3597 May 08 j 13:48 27°**Y**16'30 -3592 Oct 26 j 05:30 6°**£**32'58 0°50'22 evening set minimum elong

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3592 in astronomical counting style is the year 3593 BCE in historical counting style. opposition -3592 Nov 07 i 19:04 9°**2**26′28 $-3586 \text{ Nov } 07 \text{ j } 08:29 \quad 18^{\circ} \Upsilon 28'36 \quad 0^{\circ} -52' -40$ morning rise -3591 Mar 14 j 02:11 28° **2**02'46 min. Earth dist. -3586 Nov 06 j 14:13 18°**Υ**34'48 4.21404 AU retrograde opposition -3591 May 14 j 04:18 23°**2**08'07 0°44'06 $-3585 \text{ Jan } 06 \text{ j } 00:25 \quad 13^{\circ} \Upsilon 26'27$ direct -3591 May 14 j 20:42 23°**♀**02'51 4.16045 AU -3585 May 04 j 12:40 min. Earth dist. 0°8 -3591 Jul 13 j 20:25 18° **2**13'28 -3585 May 13 j 09:35 direct evening set 1°**8**57'01 -3591 Oct 15 j 18:57 0°M 4°859'45 0°-13'-32 -3585 May 27 j 02:23 evening set -3591 Nov 15 j 09:04 6°M54'11 conjunction -3585 May 27 j 02:24 minimum elong 4°**8**59'45 0°13'28 -3585 May 26 j 21:57 conjunction -3591 Nov 28 j 02:58 9°M54'03 0°06'37 behind sun begin 4°**8**57'17 minimum elong -3591 Nov 28 j 02:57 9°M54'03 0°06'32 behind sun end -3585 May 27 j 06:51 5°**8**02'13 behind sun begin -3591 Nov 27 j 19:24 9°M49'37 max. Earth dist. -3585 May 27 j 18:21 5°**8**08'38 6.27004 AU -3591 Nov 28 j 10:31 -3585 Jun 09 j 17:29 behind sun end 9°M58'29 morning rise 8°**8**01'27 -3585 Jul 12 j 11:43 15°8 max. Earth dist. -3591 Nov 27 j 15:08 9°**™**47'06 6.10633 AU morning rise -3591 Dec 10 j 22:41 12°M55'04 asc. node -3585 Sep 22 j 04:06 25°**8**14'42 -3591 Dec 19 j 21:30 15°M retrograde -3585 Oct 10 j 18:44 25°848'19 desc. node -3590 Jan 20 j 20:39 22°M00'53 opposition -3585 Dec 09 j 08:23 20°**8**49'43 0°13'04 -3590 Mar 10 j 01:46 0°**∡**¹ min. Earth dist. -3585 Dec 09 j 06:19 20°**8**50'24 4.31914 AU retrograde -3590 Apr 19 j 13:55 2°**х** 28′36 direct -3584 Feb 08 j 08:51 15°**8**46'10 -3590 May 30 j 07:40 30°RML -3584 May 27 j 23:07 $\Pi^{\circ}0$ opposition -3590 Jun 19 j 09:13 27°M 30'14 0°-27'-19 evening set -3584 Jun 15 j 02:25 3°**I**53′10 min. Earth dist. -3590 Jun 19 j 07:53 27°M 30'40 4.05920 AU direct -3590 Aug 17 j 17:05 22°M 37'07 conjunction -3584 Jun 28 i 12:15 6°**Ⅱ**49'21 0°31'00 -3590 Oct 27 i 07:57 0°×7 minimum elong -3584 Jun 28 i 12:13 6°**Ⅱ**49'20 0°31'07 evening set -3590 Dec 19 j 21:45 11° **₹** 42'24 max. Earth dist. -3584 Jun 28 i 02:39 6°**Ⅱ**44'05 6.35917 AU morning rise -3584 Jul 11 j 19:06 9°**Ⅱ**43'58 -3589 Jan 01 j 22:22 14° **₹** 48'45 0°-40'-58 -3584 Nov 09 j 14:52 26°**Д**53'49 conjunction retrograde -3589 Jan 01 j 22:19 14° ₹ 48'43 0°41'06 -3583 Jan 08 j 13:55 21°**Д**58'54 1°12'31 opposition minimum elong -3589 Jan 02 j 14:13 14°**✗** 58'13 -3583 Jan 09 j 03:13 21°**Д**54'33 4.38676 AU max. Earth dist. 6.02494 AU min. Earth dist. -3589 Jan 15 j 01:56 17° ₹ 56'47 -3583 Mar 11 j 15:40 16°**耳**55'25 morning rise direct -3589 Mar 11 j 05:21 -3583 Jun 24 j 15:28 0°ಕ 0ಂತಾ -3589 May 26 j 23:41 -3583 Jul 17 j 07:24 retrograde 8°**る**11'22 evening set 4°548'34 -3589 Jul 25 j 11:53 -3583 Jul 29 j 02:25 min. Earth dist. 3°る15'37 4.00703 AU max. Earth dist. 7°**5**23'03 6.39944 AU -3589 Jul 26 j 07:15 3°**전**09'09 -1°-31'-14 opposition -3589 Aug 21 j 00:51 30°R ✓ -3583 Jul 30 j 08:02 7°539'16 1°05'35 conjunction -3589 Sep 22 j 13:47 28° ₹ 15'35 -3583 Jul 30 j 07:59 direct minimum elong 7°939'14 1°05'44 -3589 Oct 24 j 21:51 0°る -3583 Aug 12 j 05:17 10°528'21 morning rise -3588 Jan 25 j 04:21 17°る35'40 -3583 Dec 10 j 10:22 27°526'50 evening set retrograde -3582 Feb 08 j 19:49 22°534'32 1°50'45 opposition conjunction -3588 Feb 07 j 12:14 20°₹46'02 -1°-14'-6 min. Earth dist. -3582 Feb 09 j 21:43 22°526'13 4.39860 AU minimum elong -3588 Feb 07 j 12:12 20°₹46'00 1°14'14 direct -3582 Apr 12 j 11:24 17°532'25 max. Earth dist. -3588 Feb 09 j 02:16 21°**궁**08'41 6.00553 AU -3582 Jul 23 j 06:38 $0^{\circ}\Omega$ -3588 Feb 20j23:37 23°る58'07 -3582 Aug 17 j 13:35 5°**Ω**23'35 morning rise evening set -3588 Mar 18 j 04:13 max. Earth dist. 7°**Ω**48'06 -3582 Aug 28 j 11:39 6.38055 AU -3588 Jul 01 j 22:55 14°≈16'52 retrograde -3588 Aug 30 j 19:08 9°≈11'59 -2°00'-38 -3582 Aug 30 j 06:17 8°Ω11'42 1°21'37 opposition conjunction 8°**Ω**11'41 min. Earth dist. -3588 Aug 29 i 13:30 9°≈22'04 4.02406 AU minimum elong -3582 Aug 30 i 06:16 1°21'43 -3588 Oct 27 j 18:33 direct 4°≈15'51 morning rise -3582 Sep 11 j 20:29 10° Ω58'37 -3587 Jan 23 i 00:11 15°≈ -3582 Sep 30 i 10:47 $15^{\circ}\Omega$ evening set -3587 Mar 02 j 07:20 23°≈33'08 retrograde -3581 Jan 11 j 01:15 $28^{\circ}\Omega$ 11'44 -3581 Mar 12 j 20:02 23° Ω 20'18 1°58'29 opposition -3587 Mar 15 j 22:11 26°≈44'09 -1°-19'-6 min. Earth dist. -3581 Mar 14 j 03:34 23° Ω 10'16 4.35116 AU conjunction -3587 Mar 15 j 22:13 26°≈44'10 1°19'12 direct $-3581 \text{ May } 14 \text{ j } 09:11 \quad 18^{\circ} \Omega 20'29$ minimum elong -3587 Mar 17 j 22:24 27°≈12'23 6.05628 AU -3581 Aug 19 j 03:39 max. Earth dist. 0°m morning rise -3587 Mar 29 j 15:12 29°≈56'11 evening set -3581 Sep 17 j 13:51 6° Mp 21'17 -3581 Sep 28 j 09:29 -3587 Mar 29 j 21:48 0°**)**€ max. Earth dist. 8° Mp 47'16 6.30784 AU retrograde -3587 Aug 06 j 11:05 19° **€** 38'20 opposition -3587 Oct 04 j 22:26 14° **★** 33'24 -1°-44'-21 conjunction -3581 Sep 30 j 02:53 9° **m** 10'38 1°14'37 min. Earth dist. -3587 Oct 03 j 18:35 14° ¥ 42'55 4.10316 AU -3581 Sep 30 j 02:55 9° m 10'39 1°14'40 minimum elong -3587 Dec 02 j 11:27 9°**)** 34'00 -3581 Oct 12 j 14:26 11° m 59'29 direct morning rise -3580 Feb 13 j 03:18 29° m 50'22 evening set -3586 Apr 08 j 00:33 28° **∺**31'27 retrograde -3586 Apr 14 j 12:16 $0^{\circ}\Upsilon$ -3580 Apr 14 j 04:55 24° m 57'58 opposition 1°31'49 min. Earth dist. -3580 Apr 15 j 08:05 24° Mp 49'20 4.25748 AU conjunction -3586 Apr 21 j 19:00 1°**Y**39'40 0°-55'-13 direct -3580 Jun 14 j 22:38 20° m 01'05 minimum elong -3586 Apr 21 j 19:04 1°**Y**39'42 0°55'13 -3580 Sep 09 j 19:45 0∘**⊽** max. Earth dist. -3586 Apr 23 j 09:15 2°**Y**01′28 6.15679 AU evening set -3580 Oct 18 j 04:00 8°**£**20'48 -3586 May 05 j 13:58 4°**Y**47'53 max. Earth dist. -3580 Oct 29 j 11:33 10° **2**57'22 6.20146 AU morning rise

-3586 Sep 08 j 21:45 23°**Y**31'06

retrograde

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3580 in astronomical counting style is the year 3581 BCE in historical counting style. -3580 Oct 30 j 17:52 11°**2**14'54 0°45'01 minimum elong -3574 Apr 26 j 17:17 6°Υ25'50 0°50'14 conjunction minimum elong -3580 Oct 30 j 17:55 11°**2**14'56 -3574 Apr 28 j 04:08 6°**Y**45'39 0°45'00 max. Earth dist. 6.17265 AU -3580 Nov 12 j 08:14 14°**£**09'26 -3574 May 10 j 11:56 9°Y33'14 morning rise morning rise -3579 Feb 02 j 23:00 0°M -3574 Sep 13 j 09:42 28°**Y**08'19 retrograde -3579 Mar 19 j 03:44 -3574 Nov 11 j 19:09 23°**Υ**′06'22 retrograde 2°M54'04 opposition 0°-44'-1 -3574 Nov 11 j 04:03 23°**Υ**11'29 -3579 May 02 j 23:45 30°R**≏** min. Earth dist. 4.22881 AU 0°34'40 -3573 Jan 10 j 16:21 18°**Y**03'56 opposition -3579 May 19 j 04:36 27°**♀**58'57 direct min. Earth dist. -3579 May 19 j 18:47 27°**♀**54'23 4.14489 AU -3573 Apr 17 j 14:32 0°B direct -3579 Jul 18 j 16:42 23°**♀**04'38 evening set -3573 May 18 j 02:31 6°**8**31'23 -3579 Sep 25 j 22:39 0°M evening set -3579 Nov 20 j 02:40 11° ML 48'49 conjunction -3573 May 31 j 18:42 9°**8**33'20 0°-7'-19 -3573 May 31 j 18:43 desc. node -3579 Nov 30 j 16:27 14°ML18'18 minimum elong 9°**8**33'21 0°07'15 -3573 May 31 j 11:08 behind sun begin 9°**8**29'09 conjunction -3579 Dec 02 j 21:26 14°M 49'36 0°00'-16 behind sun end -3573 Jun 01 j 02:19 9°**8**37'33 minimum elong -3579 Dec 02 j 21:28 14°ML49'37 0°00'24 max. Earth dist. -3573 Jun 01 j 07:14 9°840'17 6.28266 AU behind sun begin -3579 Dec 02 j 13:25 14°ML44'53 morning rise -3573 Jun 14 j 08:56 12°**8**34'10 behind sun end -3579 Dec 03 j 05:30 14°ML54'21 -3573 Jun 25 j 11:46 15°**8** max. Earth dist. -3579 Dec 02 j 14:20 14°ML45'26 6.09340 AU asc. node -3573 Aug 03 j 09:15 22°**8**49'25 -3579 Dec 03 j 15:06 15°M -3573 Oct 02 j 12:43 $0^{\circ}\Pi$ morning rise -3579 Dec 15 j 18:08 17° ML51'39 retrograde -3573 Oct 15 j 00:47 0°**I**15′23 -3578 Feb 10 j 04:35 0°**∡**¹ -3573 Oct 27 j 12:22 30°R8 retrograde -3578 Apr 24 j 18:21 7°**∡**31'44 opposition -3573 Dec 13 j 15:58 25°**8**17'20 0°21'58 opposition -3578 Jun 24 j 12:45 2°**x** 32'53 0°-37'-22 min. Earth dist. -3573 Dec 13 i 15:32 25°**8**17'28 4.32886 AU min. Earth dist. -3578 Jun 24 j 08:17 2°**₹**34'21 4.05039 AU direct -3572 Feb 12 i 19:09 20°**8**13'43 -3578 Jul 15 j 00:22 30°RML -3572 May 10 j 09:57 $0^{\circ}II$ -3578 Aug 22 j 16:18 27°M39'54 -3572 Jun 19 j 14:48 8°**Ⅱ**19'08 direct evening set -3578 Sep 29 j 17:53 0°**√** -3578 Dec 24 j 21:17 16° ₹ 47'11 -3572 Jul 02 j 23:25 11°**Д**14'35 0°36'33 conjunction evening set -3572 Jul 02 j 23:23 11°**Ⅲ**14'33 0°36'41 minimum elong -3577 Jan 06 j 22:41 19°**х** 54'04 0°-46'-50 -3572 Jul 02 j 10:31 11°**Д**07'30 6.36533 AU conjunction max. Earth dist. -3572 Jul 16 j 04:59 14°**I**I08'25 -3577 Jan 06 j 22:37 19°**х** 54'02 0°46'58 minimum elong morning rise -3572 Oct 16 j 12:00 max. Earth dist. -3577 Jan 07 j 17:16 20° **₹** 05'11 6.02080 AU 0ಂತಾ -3577 Jan 20 j 03:23 23°**尽** 02'45 -3572 Nov 13 j 22:10 1°9516'05 morning rise retrograde -3577 Feb 19 j 10:24 0°る -3572 Dec 12 j 06:34 30°RⅡ -3577 Jun 01 j 03:04 13°**전**19'14 -3571 Jan 12 j 21:22 26°**Ⅲ**21'41 1°19'17 retrograde opposition -3577 Jul 31 j 10:00 8°る16'30 opposition -1°-37'-47 min. Earth dist. -3571 Jan 13 j 13:11 26°**Ⅱ**16'32 4.38921 AU min. Earth dist. -3577 Jul 30 j 12:12 8°**궁**23'48 4.00818 AU direct -3571 Mar 16 j 01:58 21°**Ⅱ**18'21 direct -3577 Sep 27 j 14:54 3°₹22'39 -3571 Jun 06 j 15:44 0ಂತಾ -3576 Jan 30 j 06:53 22°₹42'17 evening set -3571 Jul 21 j 16:47 9°9511'27 evening set max. Earth dist. -3571 Aug 02 j 07:41 11°5643'54 6.39781 AU conjunction -3576 Feb 12 j 15:53 25°₹52'48 -1°-16'-36 -3576 Feb 12 j 15:51 25° ₹52'47 1°16'44 -3571 Aug 03 j 16:12 12°501'44 1°09'01 minimum elong conjunction -3576 Feb 14j09:30 26°る17'32 6.01166 AU -3571 Aug 03 j 16:09 12°501'42 max. Earth dist. minimum elong -3576 Feb 26 j 03:57 29°る04'55 -3571 Aug 16 j 12:23 14°550'25 morning rise morning rise -3576 Mar 01 j 01:41 -3571 Nov 10 j 04:44 0°**≈** 0° Ω -3576 May 14 i 06:26 15°≈ retrograde -3571 Dec 14 i 19:05 1°**Ω**50′09 -3576 Jul 06 j 23:19 19°≈19'38 retrograde -3570 Jan 18 i 14:34 30° R 55 -3576 Aug 30 i 03:43 15°R≈ opposition -3570 Feb 13 i 05:28 26°\$58'03 1°53'45 -3576 Sep 04 j 17:33 14°≈14'37 -2°00'-59 min. Earth dist. -3570 Feb 14 i 08:07 26°549'29 4.39342 AU opposition min. Earth dist. -3576 Sep 03 j 12:22 14°≈24'33 4.03454 AU direct -3570 Apr 16 i 20:51 21°556'10 direct -3576 Nov 01 j 18:21 9°≈18'06 -3570 Jul 04 j 21:48 $0^{\circ}\Omega$ -3575 Jan 01 j 16:17 15°≈ -3570 Aug 21 j 21:41 evening set 9°**£**48′39 -3575 Mar 07 j 09:17 28°≈32'29 max. Earth dist. -3570 Sep 01 j 20:09 $12^{\circ}\Omega$ 13'41 evening set 6.37223 AU -3575 Mar 13 j 15:47 0°**)**€ conjunction -3570 Sep 03 j 13:44 12°Ω36'46 1°22'01 conjunction -3575 Mar 21 j 00:41 1°**)** 43'10 -1°-17'-21 minimum elong -3570 Sep 03 j 13:43 $12^{\circ}\Omega$ 36'46 $1^{\circ}22'07$ -3575 Mar 21 j 00:44 1°**)**43′12 1°17′26 -3570 Sep 14 j 08:09 15°**Ω** minimum elong -3575 Mar 22 j 23:37 2°**升**10′32 -3570 Sep 16 j 03:09 $15^{\circ}\Omega$ 23'44 max. Earth dist. 6.06987 AU morning rise -3570 Dec 04 j 04:52 morning rise -3575 Apr 03 j 18:19 4°**)(** 54'47 0° m -3569 Jan 15 j 13:54 retrograde -3575 Aug 11 j 02:27 24°**米**29'00 retrograde 2° m/40'59 -3569 Feb 27 j 15:36 30°RΩ min. Earth dist. -3575 Oct 08 j 10:57 19° **★** 33'41 4.11845 AU opposition -3575 Oct 09 j 14:22 19° **★**24'19 -1°-38'-54 opposition -3569 Mar 17 j 09:56 27° Ω 49'32 1°56'45 direct -3575 Dec 07 j 05:59 14° ★24'29 min. Earth dist. -3569 Mar 18 j 17:06 27°**Ω**39'37 4.34025 AU -3574 Mar 29 j 03:56 0° Υ direct -3569 May 18 j 20:59 22° **Ω** 50'08 evening set -3574 Apr 12 j 22:40 3°**Y**18'14 -3569 Jul 31 j 01:07 -3569 Sep 21 j 22:50 10° m 52'55 evening set -3574 Apr 26 j 17:14 6°**Y**25'48 0°-50'-13 max. Earth dist. -3569 Oct 02 j 18:19 13° m 19'20 6.29514 AU conjunction

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3569 in astronomical counting style is the year 3570 BCE in historical counting style. -3569 Oct 04 j 11:33 13° mp 42'41 1°11'43 -3563 Mar 26 j 03:31 6°\dagger41'18 1°15'07 conjunction minimum elong minimum elong -3569 Oct 04 j 11:36 13° Mp 42'43 -3563 Mar 28 j 01:08 7°**₩**07'50 6.08067 AU 1°11'45 max. Earth dist. -3563 Apr 08 j 21:31 9°**)** 52'35 -3569 Oct 16 j 23:20 16° m 32'07 morning rise morning rise -3569 Dec 24 j 03:48 0∘ଫ -3563 Aug 15 j 20:35 29°**米** 19'56 retrograde -3568 Feb 17 j 22:20 4°**£**29'17 -3563 Oct 13 j 05:34 24° **★**24'06 4.13081 AU retrograde min. Earth dist. -3568 Apr 15 j 22:05 30°R M opposition -3563 Oct 14 j 06:45 24° **★** 15'30 -1°-32'-48 1°25'23 opposition -3568 Apr 18 j 23:53 29° m 36'31 direct -3563 Dec 12 j 02:45 19°**米** 15'14 $0^{\circ}\Upsilon$ min. Earth dist. -3568 Apr 20 j 01:35 29°**m** 28'19 4.24360 AU -3562 Mar 11 j 10:05 8° **Y**06'13 direct -3568 Jun 19 j 14:28 24°My39'57 evening set -3562 Apr 17 j 21:30 -3568 Aug 19 j 18:12 0∘**⊽** evening set -3568 Oct 22 j 15:57 13°**♀**02'11 conjunction -3562 May 01 j 16:14 11°**Υ**13'18 0°-44'-51 -3562 May 01 j 16:18 11°**Υ**13'20 max. Earth dist. -3568 Nov 03 j 04:01 15°**Ω**41'45 6.18770 AU minimum elong 0°44'50 -3562 May 03 j 01:22 11°**Y**32'05 max. Earth dist. 6.18570 AU conjunction -3568 Nov 04 j 06:26 15°**⊆**57'04 0°39'22 morning rise -3562 May 15 j 10:41 14°**Y**20'04 minimum elong -3568 Nov 04 j 06:28 15°**♀**57'06 0°39'21 -3562 Aug 06 j 09:59 0°8 morning rise -3568 Nov 16 j 21:20 18°**♀**52'27 retrograde -3562 Sep 17 j 20:56 2°847'58 -3567 Jan 08 j 03:22 0°M -3562 Oct 30 j 05:15 30°R℃ retrograde -3567 Mar 24 j 02:52 7°ML44'03 opposition -3562 Nov 16 j 07:08 27°**Υ**′46'32 0°-34'-59 opposition -3567 May 24 j 03:51 2°M48'27 0°25'01 min. Earth dist. -3562 Nov 15 j 17:04 27°**Υ**51'17 4.24128 AU min. Earth dist. -3567 May 24 j 15:44 2°M44'37 4.13214 AU direct -3561 Jan 15 j 07:05 22°**Y**'43'54 -3567 Jun 16 j 09:20 30°R ₽ -3561 Mar 29 j 01:48 0°8 direct -3567 Jul 23 j 11:32 27° **2**54'24 evening set -3561 May 22 j 21:06 11°**8**08'53 -3567 Aug 29 j 01:14 0°M desc. node -3567 Oct 10 j 20:22 6°M46'40 conjunction -3561 Jun 05 i 12:26 14°**8**10'04 0°00'-54 -3567 Nov 17 j 14:28 15°M -3561 Jun 05 j 12:26 14°**8**10'04 0°00'50 minimum elong -3567 Nov 24 j 19:39 16° ML41'10 -3561 Jun 05 j 04:09 14°**8**05'29 behind sun begin evening set -3561 Jun 05 j 20:44 14°**8**14'38 behind sun end -3567 Dec 07 j 15:05 19°ML42'45 0°-7'-5 max. Earth dist. -3561 Jun 05 j 20:34 14°**8**14'33 conjunction 6.29372 AU -3567 Dec 07 j 15:05 19°M42'45 -3561 Jun 09 j 06:27 15°**႘** 0°07'12 minimum elong -3567 Dec 07 j 07:39 19°M38'22 -3561 Jun 13 j 06:27 15°**8**53'10 behind sun begin asc. node -3567 Dec 07 j 22:31 19°M47'08 -3561 Jun 19 j 01:47 17°**8**10'03 behind sun end morning rise max. Earth dist. -3567 Dec 07 j 10:16 19°M 39'56 -3561 Aug 23 j 15:12 0°**Ⅱ** 6.08265 AU 4°**Ⅱ**46′11 -3567 Dec 20 j 12:54 22°ML45'43 -3561 Oct 19 j 10:54 morning rise retrograde -3566 Jan 21 j 10:21 0°**尽** -3561 Dec 16 j 15:39 30°R8 -3566 Apr 29 j 20:44 12° ₹31'34 -3561 Dec 18 j 01:42 29°848'43 0°30'56 retrograde opposition -3561 Dec 18 j 04:13 29°847'53 4.33777 AU opposition -3566 Jun 29 j 14:30 7°×32'05 0°-47'-3 min. Earth dist. -3560 Feb 17 j 09:20 24°**8**45'06 min. Earth dist. -3566 Jun 29 j 07:07 7°**∡**³34'31 4.04260 AU direct direct -3566 Aug 27 j 14:30 2°**₹**39'03 -3560 Apr 19 j 02:25 0°**П** -3566 Dec 29 j 19:22 21° ₹ 48'13 evening set -3560 Jun 24 j 04:53 12°**Ⅱ**48'58 evening set conjunction -3565 Jan 11 j 21:55 24° ₹755'45 0°-52'-18 conjunction -3560 Jul 07 j 12:25 15°**Ⅲ**43'42 0°42'02 -3565 Jan 11 j 21:51 24° ₹755'42 0°52'27 -3560 Jul 07 j 12:22 15°**Ⅲ**43'40 0°42'11 minimum elong minimum elong -3565 Jan 12 j 21:09 25°**х** 09'37 6.01667 AU -3560 Jul 06 j 21:32 15°**Д**35'32 6.37153 AU max. Earth dist. max. Earth dist. -3565 Jan 25 j 03:30 28° ₹ 05'00 -3560 Jul 20 j 16:37 18°**Д**36'45 morning rise morning rise -3565 Feb 02 j 06:45 -3560 Sep 16 j 06:26 retrograde -3565 Jun 06 i 06:53 18°₹23'19 retrograde -3560 Nov 18 i 05:38 5°9542'15 opposition -3565 Aug 05 i 11:09 13°**♂**20'09 -1°-43'-35 opposition -3559 Jan 17 i 06:52 0°548'16 1°25'46 min. Earth dist. -3565 Aug 04 j 12:40 13°る27'43 4.00833 AU min. Earth dist. -3559 Jan 17 i 23:12 0°542'57 4.39278 AU direct -3565 Oct 02 i 14:42 8°**る**26'01 -3559 Jan 23 j 11:59 30°R II -3564 Feb 04 i 08:49 27° ₹45'51 -3559 Mar 20 j 12:28 25°**Ⅲ**45'09 evening set direct -3564 Feb 13 j 19:22 -3559 May 15 j 02:11 0°≈≈ 000 -3559 Jul 26 j 03:21 13°537'33 evening set -3559 Aug 06 j 16:03 16°508'55 -3564 Feb 17 j 18:39 0°≈56'33 -1°-18'-32 max. Earth dist. conjunction 6 39861 AU minimum elong -3564 Feb 17 j 18:37 0°≈56'32 1°18'39 max. Earth dist. -3564 Feb 19 j 12:44 1°≈21'31 6.01577 AU conjunction -3559 Aug 08 j 01:30 16°\$27'17 1°12'09 -3564 Mar 02 j 07:47 4°≈08'52 minimum elong -3559 Aug 08 j 01:27 16°527'15 1°12'16 morning rise -3564 Apr 20 j 14:26 15°≈ morning rise -3559 Aug 20 j 20:30 19°515'28 -3564 Jul 11 j 20:46 24°≈20'08 -3559 Oct 13 j 13:57 retrograde $0 {\circ} \Omega$ -3564 Sep 08 j 08:33 19°≈25'17 4.04235 AU min. Earth dist. retrograde -3559 Dec 19 j 05:27 6°**Ω**15'47 -3558 Feb 17 j 16:50 opposition -3564 Sep 09 j 14:41 19°≈15'01 -2°00'-31 opposition 1°**Ω**23'56 1°56'09 -3564 Oct 17 j 11:34 15°R≈ min. Earth dist. -3558 Feb 18 j 20:36 1°**Ω**15'02 4.39157 AU direct -3564 Nov 06 j 15:42 14°≈18′00 -3558 Feb 28 j 18:27 30° R 55 -3564 Nov 26 j 23:59 15°**≈** direct -3558 Apr 21 j 09:17 26°522'27 -3563 Feb 25 j 02:43 0°**)**€ -3558 Jun 11 j 09:14 0 $^{\circ}\Omega$ evening set evening set -3563 Mar 12 j 11:18 3°**)** € 30'45 -3558 Aug 26 j 06:01 14°**Ω**14'45 -3558 Aug 29 j 16:01 15°**Ω** -3563 Mar 26 j 03:28 6° **¥**41'16 -1°-15'-3 max. Earth dist. -3558 Sep $06 \text{ j } 02:45 \quad 16^{\circ} \Omega 39'07 \quad 6.36778 \text{ AU}$ conjunction

Attention, astronom	ical year etyla ic ucad: Tl	10 Voor 3558	in actronomical co	unting etyla is the year	3550 BCE in historical c	ounting style	
conjunction	-3558 Sep 07 j 21:13			unting style is the year	-3552 Apr 02 j 00:13		
minimum elong	-3558 Sep 07 j 21:15	17° Ω 02'42		retrograde	-3552 Jul 16 j 18:36		
morning rise	-3558 Sep 07 j 21:14 -3558 Sep 20 j 10:08	19° Ω 49'38	1 22 04	min. Earth dist.	-3552 Sep 13 j 04:49		4.04758 AU
morning rise	-3558 Nov 09 j 02:45	0°m		opposition	-3552 Sep 14 j 09:58		-1°-59'-12
retrograde	-3557 Jan 20 j 02:20	7° m)09'55		direct	-3552 Nov 11 j 13:04		1 00 12
opposition	-3557 Mar 22 j 00:03	2° mp 18'21	1°54'21		-3551 Feb 07 j 09:28	0° ∀	
min. Earth dist.	-3557 Mar 23 j 06:15	2° mp 08'45	4.33351 AU	evening set	-3551 Mar 17 j 11:49	8°) €26'03	
	-3557 Apr 09 j 21:07	30°R Ω		8			
direct	-3557 May 23 j 09:02	27° Ω 19'21		conjunction	-3551 Mar 31 j 04:46	11°) 36′34	-1°-12'-14
	-3557 Jul 05 j 10:55	0° m		minimum elong	-3551 Mar 31 j 04:49		1°12'18
evening set	-3557 Sep 26 j 06:52	15° m 22'41		max. Earth dist.	-3551 Apr 02 j 02:33	12°) €03'07	6.08875 AU
max. Earth dist.	-3557 Oct 07 j 05:11	17° m 50'59	6.28678 AU	morning rise	-3551 Apr 13 j 23:15	14°) (47′42	
	-			-	-3551 Jun 29 j 04:42	$0^{\circ}\Upsilon$	
conjunction	-3557 Oct 08 j 19:35	18° Mp 12'46	1°08'25	retrograde	-3551 Aug 20 j 12:37	4° Y 09'08	
minimum elong	-3557 Oct 08 j 19:38	18° m 12'48	1°08'27		-3551 Oct 12 j 03:50	30° Ŗ ₩	
morning rise	-3557 Oct 21 j 07:17	21°Mp02'34		opposition	-3551 Oct 18 j 21:59	29°) €04'59	-1°-26'-7
	-3557 Dec 02 j 07:58	0∘ ⊽		min. Earth dist.	-3551 Oct 17 j 21:05	29°) 13′29	4.14097 AU
retrograde	-3556 Feb 22 j 14:56	9° ≏ 04'41		direct	-3551 Dec 16 j 19:41	24°) €04'21	
opposition	-3556 Apr 23 j 17:27	4° ≏ 11'38	1°18'29		-3550 Feb 18 j 11:49	0° Y	
min. Earth dist.	-3556 Apr 24 j 18:08	4° ≙ 03'47	4.23390 AU	evening set	-3550 Apr 22 j 19:58	12° Y ′53'21	
	-3556 Jun 02 j 05:54	30°R Mp					
direct	-3556 Jun 24 j 05:15	29°M 15'31		conjunction	-3550 May 06 j 14:31	15° Y ′59'55	0°-39'-12
	-3556 Jul 16 j 02:42	0∘ ⊽		minimum elong	-3550 May 06 j 14:34	15° Ƴ 59'57	0°39'11
evening set	-3556 Oct 27 j 02:02	17° ≏ 38'59		max. Earth dist.	-3550 May 07 j 19:51	16° Y 16′30	6.19725 AU
				morning rise	-3550 May 20 j 08:47	19° Y ′06'04	
conjunction	-3556 Nov 08 j 16:47	20° ≏ 34'28	0°33'35		-3550 Jul 11 j 20:24	9° 8	
minimum elong	-3556 Nov 08 j 16:50	20° ≏ 34'29	0°33'32	retrograde	-3550 Sep 22 j 08:41	7° 8 27'13	
max. Earth dist.	-3556 Nov 07 j 15:21	20° ≏ 19'41	6.17748 AU	opposition	-3550 Nov 20 j 18:47	2° 8 26'13	0°-25'-46
morning rise	-3556 Nov 21 j 08:32	23° ≏ 30'38		min. Earth dist.	-3550 Nov 20 j 07:06	2° 8 30'09	4.25308 AU
	-3556 Dec 20 j 08:16	0° M			-3550 Dec 09 j 17:03	30° ₹Ƴ	
retrograde	-3555 Mar 28 j 23:04	12°M28'19		direct	-3549 Jan 19 j 23:33	27° Y 23'18	
opposition	-3555 May 29 j 00:36	7° M 32′12			-3549 Mar 02 j 16:36	$0^{\circ}S$	
min. Earth dist.	-3555 May 29 j 09:54	7° ™ 29'12	4.12198 AU	asc. node	-3549 Apr 23 j 01:32	8° 8 27'05	
direct	-3555 Jul 28 j 04:20	2°M38'21			-3549 May 24 j 03:34	15° 8	
desc. node	-3555 Aug 22 j 09:34	3°M39'29		evening set	-3549 May 27 j 14:55	15° 8 45'42	
	-3555 Nov 01 j 02:57	15° ™					
evening set	-3555 Nov 29 j 09:52	21°M27'09		conjunction	-3549 Jun 10 j 05:37		0°05'33
				minimum elong	-3549 Jun 10 j 05:35		0°05'39
conjunction	-3555 Dec 12 j 06:15		0°-13'-38	behind sun begin	-3549 Jun 09 j 21:40	18° 8 41'44	
minimum elong	-3555 Dec 12 j 06:14	24°M29'29				4 4	
hahind aun haain			0°13'45	behind sun end	-3549 Jun 10 j 13:31	18° 8 50'28	
behind sun begin	-3555 Dec 12 j 01:48	24°M26'52	0°13'45	max. Earth dist.	-3549 Jun 10 j 12:23	18° 8 49'50	6.30498 AU
behind sun end	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40	24°M26'52 24°M32'06			-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44	18° 8 49'50 21° 8 45'09	6.30498 AU
behind sun end max. Earth dist.	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39	24°M26'52 24°M32'06 24°M29'08	0°13'45 6.07358 AU	max. Earth dist. morning rise	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44	18°849'50 21°845'09 0°II	6.30498 AU
behind sun end	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50	24°M26'52 24°M32'06 24°M29'08 27°M33'14		max. Earth dist. morning rise	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57	18°849'50 21°845'09 0°II 9°II15'55	
behind sun end max. Earth dist. morning rise	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16	24°M26'52 24°M32'06 24°M29'08 27°M33'14 0°×7		max. Earth dist. morning rise retrograde opposition	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53	18° 8 49'50 21° 8 45'09 0°П 9°П15'55 4°П18'53	0°39'39
behind sun end max. Earth dist. morning rise retrograde	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01	24°M26'52 24°M32'06 24°M29'08 27°M33'14 0° 🗷 17° 🗷 24'23	6.07358 AU	max. Earth dist. morning rise	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3549 Dec 22 j 14:12	18° ४ 49'50 21° ४ 45'09 0°П 9°П15'55 4°П18'53 4°П17'48	
behind sun end max. Earth dist. morning rise retrograde opposition	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 13:03	24°M26'52 24°M32'06 24°M29'08 27°M33'14 0° 🗷 17° 🗷 24'23 12° 🗷 24'26	6.07358 AU 0°-56'-9	max. Earth dist. morning rise retrograde opposition min. Earth dist.	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3549 Dec 22 j 14:12 -3548 Jan 30 j 23:05	18°849'50 21°845'09 0°II 9°II15'55 4°II18'53 4°II17'48 30°R8	0°39'39
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist.	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 13:03 -3554 Jul 04 j 04:41	24°M.26'52 24°M.32'06 24°M.29'08 27°M.33'14 0°×' 17°×'24'23 12°×'24'26 12°×'27'12	6.07358 AU	max. Earth dist. morning rise retrograde opposition	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3549 Dec 22 j 14:12 -3548 Jan 30 j 23:05 -3548 Feb 21 j 21:07	18°849'50 21°845'09 0°Π 9°Π15'55 4°Π18'53 4°Π17'48 30°R8 29°815'15	0°39'39
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 13:03 -3554 Jul 04 j 04:41 -3554 Sep 01 j 10:10	24°M.26'52 24°M.32'06 24°M.29'08 27°M.33'14 0°×' 17°×'24'23 12°×'24'26 12°×'27'12 7°×'31'22	6.07358 AU 0°-56'-9	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3549 Dec 22 j 14:12 -3548 Jan 30 j 23:05 -3548 Feb 21 j 21:07 -3548 Mar 15 j 02:55	18°849'50 21°845'09 0°Π 9°Π15'55 4°Π18'53 4°Π17'48 30°R8 29°815'15 0°Π	0°39'39
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist.	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 13:03 -3554 Jul 04 j 04:41	24°M26'52 24°M32'06 24°M32'08 27°M33'14 0° 🗷 17° 🗷 24'23 12° 🗷 24'26 12° 🗷 27'12 7° 🗷 31'22	6.07358 AU 0°-56'-9	max. Earth dist. morning rise retrograde opposition min. Earth dist.	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3549 Dec 22 j 14:12 -3548 Jan 30 j 23:05 -3548 Feb 21 j 21:07	18°849'50 21°845'09 0°Π 9°Π15'55 4°Π18'53 4°Π17'48 30°R8 29°815'15 0°Π	0°39'39
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 13:03 -3554 Jul 04 j 04:41 -3554 Sep 01 j 10:10 -3553 Jan 03 j 15:05	24°M.26'52 24°M.32'06 24°M.29'08 27°M.33'14 0° 🛪 17° 🛪 24'23 12° 🛪 24'26 12° 🛪 27'12 7° 🛪 31'22 26° 🛪 42'40	6.07358 AU 0°-56'-9 4.03555 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3549 Dec 22 j 14:12 -3548 Jun 30 j 23:05 -3548 Feb 21 j 21:07 -3548 Mar 15 j 02:55 -3548 Jun 28 j 17:48	18°849'50 21°845'09 0°瓜 9°瓜15'55 4°瓜18'53 4°瓜17'48 30°R8 29°815'15 0°瓜 17°瓜16'45	0°39'39 4.34760 AU
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 13:03 -3554 Jul 04 j 04:41 -3553 Jan 03 j 15:05	24°M26'52 24°M32'06 24°M29'08 27°M33'14 0° × 17° × 24'23 12° × 24'26 12° × 27'12 7° × 31'22 26° × 42'40 29° × 50'46	6.07358 AU 0°-56'-9 4.03555 AU 0°-57'-15	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3549 Jun 28 j 17:48 -3548 Jun 28 j 17:48 -3548 Jul 11 j 23:52	18°849'50 21°845'09 0°	0°39'39 4.34760 AU 0°47'14
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 13:03 -3554 Jul 04 j 04:41 -3554 Sep 01 j 10:10 -3553 Jan 03 j 15:05 -3553 Jan 16 j 18:27 -3553 Jan 16 j 18:24	24°M.26'52 24°M.32'06 24°M.29'08 27°M.33'14 0° 🗷 17° 🗷 24'23 12° 🗷 24'26 12° 🗷 27'12 7° 🗷 31'22 26° 🗷 42'40 29° 🗷 50'46 29° 🗷 50'44	6.07358 AU 0°-56'-9 4.03555 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3548 Jun 30 j 23:05 -3548 Feb 21 j 21:07 -3548 Jun 28 j 17:48 -3548 Jul 11 j 23:52 -3548 Jul 11 j 23:48	18°849'50 21°845'09 0°	0°39'39 4.34760 AU 0°47'14 0°47'22
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 13:03 -3554 Jul 04 j 04:41 -3554 Sep 01 j 10:10 -3553 Jan 03 j 15:05 -3553 Jan 16 j 18:27 -3553 Jan 16 j 18:24 -3553 Jan 17 j 09:54	24°M26'52 24°M32'06 24°M29'08 27°M33'14 0°\$\mathref{s}\$ 17°\$\mathref{s}\$24'23 12°\$\mathref{s}\$24'26 12°\$\mathref{s}\$27'12 7°\$\mathref{s}\$31'22 26°\$\mathref{s}\$42'40 29°\$\mathref{s}\$50'46 29°\$\mathref{s}\$50'44 0°\$\mathref{s}\$	6.07358 AU 0°-56'-9 4.03555 AU 0°-57'-15 0°57'25	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3548 Jun 28 j 17:48 -3548 Jun 28 j 17:48 -3548 Jul 11 j 23:52 -3548 Jul 11 j 23:48 -3548 Jul 11 j 05:21	18°849'50 21°845'09 0°	0°39'39 4.34760 AU 0°47'14
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 13:03 -3554 Jul 04 j 04:41 -3554 Sep 01 j 10:10 -3553 Jan 03 j 15:05 -3553 Jan 16 j 18:27 -3553 Jan 16 j 18:24 -3553 Jan 17 j 18:53	24°M26'52 24°M32'06 24°M32'08 27°M33'14 0°\$ 17°\$24'23 12°\$24'26 12°\$27'12 7°\$31'22 26°\$42'40 29°\$50'46 29°\$50'44 0°\$ 0°\$505'22	6.07358 AU 0°-56'-9 4.03555 AU 0°-57'-15	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3548 Jun 30 j 23:05 -3548 Feb 21 j 21:07 -3548 Jun 28 j 17:48 -3548 Jul 11 j 23:52 -3548 Jul 11 j 23:48 -3548 Jul 11 j 05:21 -3548 Jul 25 j 02:49	18°849'50 21°845'09 0°	0°39'39 4.34760 AU 0°47'14 0°47'22
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 13:03 -3554 Jul 04 j 04:41 -3554 Sep 01 j 10:10 -3553 Jan 03 j 15:05 -3553 Jan 16 j 18:27 -3553 Jan 17 j 09:54 -3553 Jan 17 j 18:53 -3553 Jan 30 j 01:15	24°M.26'52 24°M.32'06 24°M.29'08 27°M.33'14 0° 🛪 17° 🛪'24'23 12° 🛪'24'26 12° 🛪'27'12 7° 🛪'31'22 26° 🛪'42'40 29° 🛪'50'46 29° 🛪'50'44 0° 🛪 0° 🛪 05'522 3° 🛪'00'42	6.07358 AU 0°-56'-9 4.03555 AU 0°-57'-15 0°57'25	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3548 Jun 30 j 23:05 -3548 Feb 21 j 21:07 -3548 Jun 28 j 17:48 -3548 Jul 11 j 23:52 -3548 Jul 11 j 23:48 -3548 Jul 11 j 05:21 -3548 Jul 25 j 02:49 -3548 Aug 27 j 08:04	18° 849'50 21° 845'09 0° Π 9° Π15'55 4° Π18'53 4° Π17'48 30° R 8 29° 815'15 0° Π 17° Π16'45 20° Π10'34 20° Π00'27 23° Π02'48 0° 5	0°39'39 4.34760 AU 0°47'14 0°47'22
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 13:03 -3554 Jul 04 j 04:41 -3554 Sep 01 j 10:10 -3553 Jan 03 j 15:05 -3553 Jan 16 j 18:24 -3553 Jan 17 j 09:54 -3553 Jan 17 j 18:53 -3553 Jan 30 j 01:15 -3553 Jun 11 j 05:19	24°M.26'52 24°M.32'06 24°M.29'08 27°M.33'14 0° 🛪 17° 🖈 24'23 12° 🛪 24'26 12° 🛪 27'12 7° 🛪 31'22 26° 🛪 42'40 29° 🛪 50'46 29° 🛪 50'44 0° 🛪 0° 🛪 600'42 23° 🛪 21'03	6.07358 AU 0°-56'-9 4.03555 AU 0°-57'-15 0°57'25 6.01209 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3548 Jun 30 j 23:05 -3548 Feb 21 j 21:07 -3548 Jun 28 j 17:48 -3548 Jul 11 j 23:48 -3548 Jul 11 j 23:48 -3548 Jul 11 j 05:21 -3548 Jul 25 j 02:49 -3548 Aug 27 j 08:04 -3548 Nov 22 j 13:31	18°849'50 21°845'09 0° II 9° II 15'55 4° II 18'53 4° II 17'48 30° R 29° 815'15 0° II 17° II 16'45 20° II 10'36 20° II 10'34 20° II 0'34 20° II 0'34 0° II 10° II 10'34	0°39'39 4.34760 AU 0°47'14 0°47'22 6.37888 AU
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist.	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 13:03 -3554 Jul 04 j 04:41 -3554 Sep 01 j 10:10 -3553 Jan 03 j 15:05 -3553 Jan 16 j 18:27 -3553 Jan 17 j 09:54 -3553 Jan 17 j 18:53 -3553 Jan 30 j 01:15 -3553 Jun 11 j 05:19 -3553 Aug 09 j 08:28	24°M.26'52 24°M.32'06 24°M.29'08 27°M.33'14 0° 🛪 17° 🗷 24'23 12° 🗷 27'12 7° 🗷 31'22 26° 🗷 42'40 29° 🗷 50'44 0° 🛪 0° 🛪 00'42 23° 🛪 21'03 18° 🛪 25'46	6.07358 AU 0°-56'-9 4.03555 AU 0°-57'-15 0°57'25 6.01209 AU 4.00707 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3548 Jun 30 j 23:05 -3548 Feb 21 j 21:07 -3548 Jun 28 j 17:48 -3548 Jul 11 j 23:52 -3548 Jul 11 j 23:48 -3548 Jul 11 j 05:21 -3548 Jul 25 j 02:49 -3548 Aug 27 j 08:04 -3548 Nov 22 j 13:31 -3547 Jan 21 j 15:34	18° 849'50 21° 845'09 0° Π 9° Π15'55 4° Π18'53 4° Π17'48 30° R 8 29° 815'15 0° Π 17° Π16'45 20° Π10'36 20° Π10'34 20° Π00'27 23° Π02'48 0° 9 10° 905'42 5° 912'01	0°39'39 4.34760 AU 0°47'14 0°47'22 6.37888 AU 1°31'42
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 13:03 -3554 Jul 04 j 04:41 -3554 Sep 01 j 10:10 -3553 Jan 03 j 15:05 -3553 Jan 16 j 18:27 -3553 Jan 17 j 18:53 -3553 Jan 17 j 18:53 -3553 Jan 30 j 01:15 -3553 Jun 11 j 05:19 -3553 Aug 09 j 08:28 -3553 Aug 10 j 08:56	24°M.26'52 24°M.32'06 24°M.32'08 27°M.33'14 0°X 17°X24'23 12°X24'26 12°X27'12 7°X31'22 26°X42'40 29°X50'44 0°G 0°G05'22 3°G00'42 23°G21'03 18°G25'46 18°G17'32	6.07358 AU 0°-56'-9 4.03555 AU 0°-57'-15 0°57'25 6.01209 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3549 Jun 23:05 -3548 Jun 23:05 -3548 Jun 28 j 17:48 -3548 Jul 11 j 23:52 -3548 Jul 11 j 23:48 -3548 Jul 11 j 05:21 -3548 Jul 25 j 02:49 -3548 Aug 27 j 08:04 -3548 Nov 22 j 13:31 -3547 Jan 21 j 15:34 -3547 Jan 22 j 10:28	18° 849'50 21° 845'09 0° Π 9° Π15'55 4° Π18'53 4° Π17'48 30° R8 29° 815'15 0° Π 17° Π16'45 20° Π10'36 20° Π10'34 20° Π00'27 23° Π02'48 0° © 10° ©05'42 5° ©12'01 5° ©05'53	0°39'39 4.34760 AU 0°47'14 0°47'22 6.37888 AU
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist.	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 04:41 -3554 Sep 01 j 10:10 -3553 Jan 03 j 15:05 -3553 Jan 16 j 18:27 -3553 Jan 16 j 18:24 -3553 Jan 17 j 18:53 -3553 Jan 30 j 01:15 -3553 Jan 30 j 01:15 -3553 Jun 11 j 05:19 -3553 Aug 09 j 08:28 -3553 Aug 10 j 08:56 -3553 Oct 07 j 09:41	24°M.26'52 24°M.32'06 24°M.32'08 27°M.33'14 0°X 17°X24'23 12°X24'26 12°X27'12 7°X31'22 26°X42'40 29°X50'44 0°S 0°S05'22 3°S00'42 23°S21'03 18°S25'46 18°S17'32 13°S23'06	6.07358 AU 0°-56'-9 4.03555 AU 0°-57'-15 0°57'25 6.01209 AU 4.00707 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3549 Dec 22 j 14:12 -3548 Jun 30 j 23:05 -3548 Feb 21 j 21:07 -3548 Jun 28 j 17:48 -3548 Jul 11 j 23:52 -3548 Jul 11 j 23:48 -3548 Jul 11 j 05:21 -3548 Jul 25 j 02:49 -3548 Aug 27 j 08:04 -3548 Nov 22 j 13:31 -3547 Jan 21 j 15:34 -3547 Jan 22 j 10:28 -3547 Mar 25 j 00:52	18°849'50 21°845'09 0° II 9° II 15'55 4° II 18'53 4° II 17'48 30° R8 29° 815'15 0° II 17° II 16'45 20° II 10'36 20° II 10'34 20° II 0'27 23° II 02'48 0° II 10'36 20° II 10'36	0°39'39 4.34760 AU 0°47'14 0°47'22 6.37888 AU 1°31'42
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 13:03 -3554 Jul 04 j 04:41 -3554 Sep 01 j 10:10 -3553 Jan 03 j 15:05 -3553 Jan 16 j 18:27 -3553 Jan 16 j 18:24 -3553 Jan 17 j 18:53 -3553 Jan 30 j 01:15 -3553 Jan 30 j 01:15 -3553 Aug 09 j 08:28 -3553 Aug 10 j 08:56 -3553 Oct 07 j 09:41 -3552 Jan 28 j 15:43	24°M.26′52 24°M.32′06 24°M.32′06 24°M.33′14 0° ✓ 17° ✓ 24′23 12° ✓ 27′12 7° ✓ 31′22 26° ✓ 42′40 29° ✓ 50′46 29° ✓ 50′44 0° ♂ 0° ♂ 05′22 3° ♂ 00′42 23° ♂ 21′03 18° ♂ 25′46 18° ♂ 17′32 13° ♂ 23′06 0° ≈	6.07358 AU 0°-56'-9 4.03555 AU 0°-57'-15 0°57'25 6.01209 AU 4.00707 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3548 Jun 28 j 17:48 -3548 Jun 28 j 17:48 -3548 Jul 11 j 23:52 -3548 Jul 11 j 23:48 -3548 Jul 11 j 05:21 -3548 Jul 25 j 02:49 -3548 Aug 27 j 08:04 -3548 Jun 21 j 15:34 -3547 Jan 21 j 15:34 -3547 Jan 22 j 10:28 -3547 Jul 30 j 12:10	18°849'50 21°845'09 0° II 9° II 15'55 4° II 18'53 4° II 17'48 30° R8 29° 815'15 0° II 17° II 16'45 20° II 10'36 20° II 10'36 20° II 0'34 20° II 0'27 23° II 02'48 0° II 0'57 23° II 02'48 0° II 0'58 10° II 0'51 20° II 0'68 20° II 0'7 21° II 0'7 21° II 0'80 21°	0°39'39 4.34760 AU 0°47'14 0°47'22 6.37888 AU 1°31'42 4.39705 AU
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 04:41 -3554 Sep 01 j 10:10 -3553 Jan 03 j 15:05 -3553 Jan 16 j 18:27 -3553 Jan 16 j 18:24 -3553 Jan 17 j 18:53 -3553 Jan 30 j 01:15 -3553 Jan 30 j 01:15 -3553 Jun 11 j 05:19 -3553 Aug 09 j 08:28 -3553 Aug 10 j 08:56 -3553 Oct 07 j 09:41	24°M.26'52 24°M.32'06 24°M.32'08 27°M.33'14 0°X 17°X24'23 12°X24'26 12°X27'12 7°X31'22 26°X42'40 29°X50'44 0°S 0°S05'22 3°S00'42 23°S21'03 18°S25'46 18°S17'32 13°S23'06	6.07358 AU 0°-56'-9 4.03555 AU 0°-57'-15 0°57'25 6.01209 AU 4.00707 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3549 Dec 22 j 14:12 -3548 Jun 30 j 23:05 -3548 Feb 21 j 21:07 -3548 Jun 28 j 17:48 -3548 Jul 11 j 23:52 -3548 Jul 11 j 23:48 -3548 Jul 11 j 05:21 -3548 Jul 25 j 02:49 -3548 Aug 27 j 08:04 -3548 Nov 22 j 13:31 -3547 Jan 21 j 15:34 -3547 Jan 22 j 10:28 -3547 Mar 25 j 00:52	18°849'50 21°845'09 0° II 9° II 15'55 4° II 18'53 4° II 17'48 30° R8 29° 815'15 0° II 17° II 16'45 20° II 10'36 20° II 10'36 20° II 0'34 20° II 0'27 23° II 02'48 0° II 0'57 23° II 02'48 0° II 0'58 10° II 0'51 20° II 0'68 20° II 0'7 21° II 0'7 21° II 0'80 21°	0°39'39 4.34760 AU 0°47'14 0°47'22 6.37888 AU 1°31'42
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 04:41 -3554 Sep 01 j 10:10 -3553 Jan 03 j 15:05 -3553 Jan 16 j 18:27 -3553 Jan 16 j 18:24 -3553 Jan 17 j 18:53 -3553 Jan 30 j 01:15 -3553 Jan 30 j 01:15 -3553 Jan 11 j 05:19 -3553 Aug 09 j 08:28 -3553 Aug 10 j 08:56 -3553 Oct 07 j 09:41 -3552 Jan 28 j 15:43 -3552 Feb 09 j 08:29	24°M26'52 24°M32'06 24°M29'08 27°M33'14 0°ズ 17°ズ24'23 12°ズ27'12 7°ズ31'22 26°ズ42'40 29°ズ50'46 29°ズ50'44 0°ゼ 0°♂05'22 3°♂00'42 23°♂21'03 18°♂25'46 18°♂17'32 13°♂23'06 0°≈ 2°≈44'06	6.07358 AU 0°-56'-9 4.03555 AU 0°-57'-15 0°57'25 6.01209 AU 4.00707 AU -1°-48'-28	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3548 Jun 28 j 17:48 -3548 Jun 28 j 17:48 -3548 Jul 11 j 23:52 -3548 Jul 11 j 23:48 -3548 Jul 11 j 05:21 -3548 Jul 25 j 02:49 -3548 Aug 27 j 08:04 -3548 Jun 21 j 15:34 -3547 Jun 22 j 10:28 -3547 Jun 30 j 12:10 -3547 Aug 10 j 22:25	18°849'50 21°845'09 0° II 9° II 15'55 4° II 18'53 4° II 17'48 30° R8 29°815'15 0° II 17° II 16'45 20° II 10'36 20° II 10'34 20° II 00'27 23° II 02'48 0° II 10'36 20° II 10'36	0°39'39 4.34760 AU 0°47'14 0°47'22 6.37888 AU 1°31'42 4.39705 AU 6.39900 AU
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 04:41 -3554 Sep 01 j 10:10 -3553 Jan 03 j 15:05 -3553 Jan 16 j 18:27 -3553 Jan 16 j 18:24 -3553 Jan 17 j 18:53 -3553 Jan 30 j 01:15 -3553 Jan 30 j 01:15 -3553 Jan 17 j 18:53 -3553 Jan 17 j 18:53 -3553 Jan 28 j 15:43 -3552 Feb 09 j 08:29 -3552 Feb 22 j 19:23	24°M.26'52 24°M.32'06 24°M.29'08 27°M.33'14 0° 🛪 17° 🛪'24'23 12° 🛪'27'12 7° 🛪'31'22 26° 🛪'42'40 29° 🛪'50'46 29° 🛪'50'44 0° 🛪 0° 🛪 00'42 23° 🕏 21'03 18° 🗟 25'46 18° 🕏 17'32 13° 🕏 23'06 0° 📾 2° 🖘 44'06 5° 📚 55'10	6.07358 AU 0°-56'-9 4.03555 AU 0°-57'-15 0°57'25 6.01209 AU 4.00707 AU -1°-48'-28	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3548 Jun 30 j 23:05 -3548 Feb 21 j 21:07 -3548 Jun 28 j 17:48 -3548 Jul 11 j 23:52 -3548 Jul 11 j 23:48 -3548 Jul 11 j 05:21 -3548 Jul 25 j 02:49 -3548 Aug 27 j 08:04 -3548 Nov 22 j 13:31 -3547 Jun 21 j 15:34 -3547 Jun 22 j 10:28 -3547 Jun 30 j 12:10 -3547 Aug 10 j 22:25	18°849'50 21°845'09 0° II 9° II 15'55 4° II 18'53 4° II 17'48 30° R8 29° 815'15 0° II 17° II 16'45 20° II 10'36 20° II 10'36 20° II 10'34 20° II 10'34 20° II 10'34 20° II 10'34 20° II 10'36 20° II 10'	0°39'39 4.34760 AU 0°47'14 0°47'22 6.37888 AU 1°31'42 4.39705 AU 6.39900 AU 1°14'50
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 03:41 -3554 Sep 01 j 10:10 -3553 Jan 03 j 15:05 -3553 Jan 16 j 18:24 -3553 Jan 16 j 18:24 -3553 Jan 17 j 09:54 -3553 Jan 17 j 18:53 -3553 Jan 30 j 01:15 -3553 Jan 30 j 01:15 -3553 Jan 17 j 18:53 -3553 Jan 17 j 18:53 -3553 Jan 17 j 18:53 -3553 Jan 20 j 08:28 -3553 Aug 09 j 08:28 -3553 Oct 07 j 09:41 -3552 Jan 28 j 15:43 -3552 Feb 09 j 08:29 -3552 Feb 22 j 19:23 -3552 Feb 22 j 19:23	24°M.26'52 24°M.32'06 24°M.29'08 27°M.33'14 0° 🛪 17° 🗷 24'23 12° 🗷 24'26 12° 🗷 27'12 7° 🗷 31'22 26° 🗷 42'40 29° 🗷 50'46 29° 🗷 50'46 29° 🛪 50'44 0° 🛪 0° 🛪 00'42 23° 🛪 21'03 18° 🛪 25'46 18° 🛪 17'32 13° 🛪 23'06 0° ≈ 2° ≈ 44'06 5° ≈ 55'10 5° ≈ 55'09	6.07358 AU 0°-56'-9 4.03555 AU 0°-57'-15 0°57'25 6.01209 AU 4.00707 AU -1°-48'-28	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3549 Dec 22 j 14:12 -3548 Jun 30 j 23:05 -3548 Feb 21 j 21:07 -3548 Jun 28 j 17:48 -3548 Jul 11 j 23:52 -3548 Jul 11 j 23:48 -3548 Jul 11 j 05:21 -3548 Jul 25 j 02:49 -3548 Aug 27 j 08:04 -3548 Nov 22 j 13:31 -3547 Jun 21 j 15:34 -3547 Jun 22 j 10:28 -3547 Jul 30 j 12:10 -3547 Aug 10 j 22:25 -3547 Aug 12 j 09:15 -3547 Aug 12 j 09:15	18°849'50 21°845'09 0° II 9° II 15'55 4° II 18'53 4° II 17'48 30° R8 29° 815'15 0° II 17° II 16'45 20° II 10'34 20° II 10'34 20° II 2'48 0° 5 10° 505'42 5° 512'01 5° 505'53 0° 508'59 18° 500'08 20° 530'13 20° 549'19	0°39'39 4.34760 AU 0°47'14 0°47'22 6.37888 AU 1°31'42 4.39705 AU 6.39900 AU
behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set	-3555 Dec 12 j 01:48 -3555 Dec 12 j 10:40 -3555 Dec 12 j 05:39 -3555 Dec 25 j 04:50 -3554 Jan 04 j 16:16 -3554 May 04 j 22:01 -3554 Jul 04 j 04:41 -3554 Sep 01 j 10:10 -3553 Jan 03 j 15:05 -3553 Jan 16 j 18:27 -3553 Jan 16 j 18:24 -3553 Jan 17 j 18:53 -3553 Jan 30 j 01:15 -3553 Jan 30 j 01:15 -3553 Jan 17 j 18:53 -3553 Jan 17 j 18:53 -3553 Jan 28 j 15:43 -3552 Feb 09 j 08:29 -3552 Feb 22 j 19:23	24°M.26'52 24°M.32'06 24°M.29'08 27°M.33'14 0° 🛪 17° 🛪'24'23 12° 🛪'27'12 7° 🛪'31'22 26° 🛪'42'40 29° 🛪'50'46 29° 🛪'50'44 0° 🛪 0° 🛪 00'42 23° 🕏 21'03 18° 🗟 25'46 18° 🕏 17'32 13° 🕏 23'06 0° 📾 2° 🖘 44'06 5° 📚 55'10	6.07358 AU 0°-56'-9 4.03555 AU 0°-57'-15 0°57'25 6.01209 AU 4.00707 AU -1°-48'-28	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-3549 Jun 10 j 12:23 -3549 Jun 23 j 17:44 -3549 Aug 02 j 04:44 -3549 Oct 23 j 17:57 -3549 Dec 22 j 10:53 -3548 Jun 30 j 23:05 -3548 Feb 21 j 21:07 -3548 Jun 28 j 17:48 -3548 Jul 11 j 23:52 -3548 Jul 11 j 23:48 -3548 Jul 11 j 05:21 -3548 Jul 25 j 02:49 -3548 Aug 27 j 08:04 -3548 Nov 22 j 13:31 -3547 Jun 21 j 15:34 -3547 Jun 22 j 10:28 -3547 Jun 30 j 12:10 -3547 Aug 10 j 22:25	18°849'50 21°845'09 0° II 9° II 15'55 4° II 18'53 4° II 17'48 30° R8 29° 815'15 0° II 17° II 16'45 20° II 10'34 20° II 10'34 20° II 2'48 0° 5 10° 505'42 5° 512'01 5° 505'53 0° 508'59 18° 500'08 20° 530'13 20° 549'19	0°39'39 4.34760 AU 0°47'14 0°47'22 6.37888 AU 1°31'42 4.39705 AU 6.39900 AU 1°14'50

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3547 in astronomical counting style is the year 3548 BCE in historical counting style. -3547 Dec 23 i 12:37 10° Ω38'05 conjunction -3540 Feb 28 i 01:37 11°≈05'28 -1°-20'-37 retrograde -3546 Feb 22 j 02:45 5°Ω46'17 1°57'54 -3540 Feb 28 j 01:36 11°≈05'28 1°20'44 opposition minimum elong min. Earth dist. -3546 Feb 23 j 06:38 5°**Ω**37'22 4.38808 AU -3540 Feb 29 j 23:29 11°≈32'35 max. Earth dist. 6 02367 AU 0°**Ω**45′03 -3540 Mar 12 j 16:25 14°≈18'08 -3546 Apr 25 j 18:26 direct morning rise -3546 Aug 13 j 19:59 15°**Ω** 15°**≈** -3540 Mar 15 j 16:00 evening set -3546 Aug 30 j 13:06 18°**Ω**37'46 -3540 May 28 j 21:53 0°)(max. Earth dist. -3546 Sep 10 j 09:24 21°**Ω**02'12 6.36048 AU -3540 Jul 21 j 18:42 retrograde 4°**)**€22'11 -3540 Sep 14 j 02:21 30°R≈ conjunction -3546 Sep 12 j 03:38 21° Ω 25'43 1°21'29 min. Earth dist. -3540 Sep 18 j 02:33 29°≈27'19 4.05874 AU minimum elong $-3546 \text{ Sep } 12 \text{ j } 03:38 \quad 21^{\circ} \Omega 25'44$ 1°21'34 opposition -3540 Sep 19 j 08:38 29°≈17'03 -1°-56'-56 morning rise $-3546 \text{ Sep } 24 \text{ j } 16:01 \quad 24^{\circ} \Omega 12'44$ direct -3540 Nov 16 j 12:33 24°≈19'13 -3546 Oct 21 j 13:38 -3539 Jan 16 j 16:04 0° M 0°**∀** -3539 Mar 22 j 15:57 13°**米**28'22 retrograde -3545 Jan 24 j 15:38 11° m 37'09 evening set opposition -3545 Mar 26 j 13:50 6° Mp 45'30 1°51'20 min. Earth dist. -3545 Mar 27 j 20:50 6° m 35'39 4.32258 AU conjunction -3539 Apr 05 j 09:17 16°**米**38'24 -1°-8'-53 direct -3545 May 27 j 22:00 1°M/46'51 minimum elong -3539 Apr 05 j 09:20 16°**)** 38′26 1°08'56 evening set -3545 Sep 30 j 14:53 19° m 52'13 max. Earth dist. -3539 Apr 07 j 05:03 17°**)**€03'42 6.10438 AU max. Earth dist. -3545 Oct 11 j 13:01 22° m 20'55 6.27305 AU morning rise -3539 Apr 19 j 04:09 19°**)** 48′57 -3539 Jun 05 j 12:31 $0^{\circ}\Upsilon$ conjunction -3545 Oct 13 j 03:34 22° m 42'51 1°04'44 retrograde -3539 Aug 25 j 04:31 9°Υ01'15 minimum elong -3545 Oct 13 j 03:37 22° mp 42'53 1°04'45 opposition -3539 Oct 23 j 14:26 3°**Y**57′25 -1°-18'-49 morning rise -3545 Oct 25 j 15:40 25° m 33'22 min. Earth dist. -3539 Oct 22 i 14:54 4°Υ05'26 4.15933 AU -3545 Nov 14 i 15:50 0∘**⊽** -3539 Nov 26 i 08:40 30°R **)**€ retrograde -3544 Feb 27 i 08:34 13° **2**42'31 direct -3539 Dec 21 j 16:46 28° ¥ 56'23 opposition -3544 Apr 28 i 12:13 8°**Ω**49'05 1°11'04 -3538 Jan 16 i 07:44 $0^{\circ}\Upsilon$ -3544 Apr 29 j 10:49 8°**2**41'53 4.21816 AU -3538 Apr 27 j 18:16 17°**Υ**'40'19 min. Earth dist. evening set -3544 Jun 28 j 19:29 direct 3°**£**53'17 -3544 Oct 31 j 14:14 22°**£**20'18 -3538 May 11 j 12:43 20°**Υ**45'58 evening set conjunction 0°-33'-21 -3544 Nov 12 j 08:03 25°**2**04'07 $-3538 \text{ May } 11 \text{ j } 12:45 \quad 20^{\circ} \Upsilon 45'59$ max. Earth dist. 6.16124 AU minimum elong 0°33'19 -3538 May 12 j 16:52 21°**Υ**01'48 max. Earth dist. 6.21707 AU -3544 Nov 13 j 05:43 25°**2**16'45 0°27'29 morning rise -3538 May 25 j 06:13 23°**Y**50'58 conjunction -3544 Nov 13 j 05:44 25°**2**16'46 0°27'25 -3538 Jun 22 j 15:17 0°**႘** minimum elong -3544 Nov 25 j 22:07 28°**♀**13'57 retrograde -3538 Sep 26 j 17:44 12°**8**02'39 morning rise -3544 Dec 03 j 14:15 0°M -3538 Nov 25 j 05:08 7°**8**02'12 0°-16'-35 opposition -3543 Feb 22 j 15:44 15°M -3538 Nov 24 j 18:57 7°**엉**05'37 4.27239 AU min. Earth dist. -3543 Apr 03 j 01:16 17° 110'54 -3537 Jan 24 j 13:56 1°**8**59'09 retrograde direct -3543 May 12 j 16:56 15°RM asc. node -3537 Mar 03 j 21:49 4°**8**11'31 opposition -3543 Jun 03 j 00:30 12°ML23'22 0°05'23 -3537 May 07 j 14:28 15°**8** min. Earth dist. -3543 Jun 03 j 08:33 12°**M**20'46 4.10644 AU evening set -3537 Jun 01 j 06:13 20°**8**16'30 desc. node -3543 Jul 02 j 16:05 8°M 56'25 direct -3543 Aug 02 j 00:25 7°M29'44 conjunction -3537 Jun 14 j 19:39 23°**8**15'43 0°11'41 -3543 Oct 12 j 20:49 15°M -3537 Jun 14 j 19:38 23°**8**15'42 minimum elong -3543 Dec 04 j 04:37 26°M22'39 -3537 Jun 14 j 13:58 23°**8**12'36 evening set behind sun begin -3537 Jun 15 j 01:18 23°**8**18'49 behind sun end -3543 Dec 17 j 01:50 29°M25'59 0°-20'-19 -3537 Jun 14 j 21:17 23°**8**16'36 6.32212 AU conjunction max. Earth dist. -3543 Dec 17 j 01:49 29°M25'58 -3537 Jun 28 j 06:45 26° **8**13'34 minimum elong 0°20'27 morning rise -3543 Dec 17 j 03:26 29°M26'56 6.06013 AU max. Earth dist. -3537 Jul 15 i 18:35 $\Pi^{\circ}0$ -3543 Dec 19 i 11:06 0°×7 retrograde -3537 Oct 27 i 22:55 13°**II**37'40 morning rise -3543 Dec 30 i 01:44 2°**尽**30'51 opposition -3537 Dec 26 i 17:05 8° **II**41'07 0° 47'48 -3542 May 10 i 01:53 22° ₹ 28'42 min. Earth dist. -3537 Dec 26 j 23:34 8°**Ⅲ**38'59 4.36135 AU retrograde -3542 Jul 09 i 16:06 17° ₹ 28'15 -1°-5'-15 direct -3536 Feb 26 j 08:29 3°**Ⅲ**37′25 opposition evening set min. Earth dist. -3542 Jul 09 j 04:21 17° ₹32'08 4.02577 AU -3536 Jul 03 j 02:35 21°**Д**35'38 direct -3542 Sep 06 j 08:04 12° ₹ 35'10 max. Earth dist. -3536 Jul 15 j 10:53 24°**Ⅱ**17'17 6.38802 AU -3542 Dec 31 j 22:44 0°궁 -3541 Jan 08 j 16:23 1°る49'40 conjunction -3536 Jul 16 j 07:31 24°**Ⅲ**28'35 0°51'58 evening set minimum elong -3536 Jul 16 j 07:28 24°**Ⅲ**28'33 0°52'05 conjunction -3541 Jan 21 j 20:54 4°る58'29 -1°-2'-1 morning rise -3536 Jul 29 j 08:57 27°**I**I19'50 -3541 Jan 21 j 20:51 4°る58'27 1°02'09 -3536 Aug 10 j 18:34 minimum elong 0ಂತಾ -3541 Jan 23 j 01:17 5°**る**15'28 6.00688 AU -3536 Nov 26 j 15:34 14°520'08 max. Earth dist. retrograde 8°**る**09'07 -3535 Jan 25 j 20:29 morning rise -3541 Feb 04 j 04:42 opposition 9°**5**26'48 1°36'53 -3541 Jun 16 j 10:54 28°**궁**31'19 -3535 Jan 26 j 16:45 retrograde min. Earth dist. 9°**©**20'15 4.40115 AU min. Earth dist. -3541 Aug 14 j 10:34 23°중36'02 4.00728 AU direct -3535 Mar 29 j 07:01 4°923'56 opposition -3541 Aug 15 j 11:51 23°**る**27'29 -1°-52'-46 evening set -3535 Aug 03 j 17:04 22°514'13 direct -3541 Oct 12 j 12:29 18°**る**32'46 max. Earth dist. -3535 Aug 14 j 22:47 24°5642'02 6.39743 AU -3540 Jan 10 j 17:07 0°≈ -3540 Feb 14 j 13:39 7°≈54'12 -3535 Aug 16 j 12:56 25°503'01 1°17'01 evening set conjunction

-3535 Aug 16 j 12:54 25°503'00 1°17'09

minimum elong

•	nical year style is used: Th		_				ige 33
morning rise	-3535 Aug 29 j 05:56	-	in astronomical co	direct	-3529 Oct 17 j 15:29		
morning 11sc	-3535 Aug 27 j 05:50 -3535 Sep 08 j 04:51	0°Ω		direct	-3529 Dec 20 j 06:45	0°≈	
retrograde	-3535 Sep 08 j 04:51 -3535 Dec 27 j 19:40	14° £ 53′21		evening set	-3528 Feb 19 j 20:34		
opposition	-3534 Feb 26 j 10:04		1°59'00	evening set	-3528 Feb 27 j 19:53		
min. Earth dist.	-3534 Feb 27 j 16:24	9° Ω 52'01	4.38093 AU		3020100 27 1 13.03	10 .0.	
direct	-3534 Apr 30 j 02:58	5° Ω 00'42	500/5110	conjunction	-3528 Mar 04 j 09:17	16°≈18'40	-1°-20'-45
	-3534 Jul 28 j 02:18			minimum elong	-3528 Mar 04 j 09:17		1°20'51
evening set	-3534 Sep 03 j 17:12			max. Earth dist.	-3528 Mar 06 i 07:24		6.03318 AU
max. Earth dist.	-3534 Sep 14 j 12:04		6.34812 AU	morning rise	-3528 Mar 18 j 00:57	19° ≈ 31'11	
	1 3			C	-3528 May 04 j 19:06	0°) €	
conjunction	-3534 Sep 16 j 07:21	25° Ω 43'27	1°20'34	retrograde	-3528 Jul 26 j 17:32	9°) €28'38	
minimum elong	-3534 Sep 16 j 07:22	25° Ω 43'27	1°20'38	min. Earth dist.	-3528 Sep 23 j 01:37	4°) €33'38	4.07277 AU
morning rise	-3534 Sep 28 j 19:26	28° Ω 30′50		opposition	-3528 Sep 24 j 07:32	4°) €23'24	-1°-53'-46
	-3534 Oct 05 j 12:44	0° m			-3528 Nov 03 j 03:13	30° R ≈	
retrograde	-3533 Jan 29 j 01:59	16° Mp 01′22		direct	-3528 Nov 21 j 14:11	29° ≈ 25′01	
opposition	-3533 Mar 31 j 02:00	11° m 09'33	1°47'46		-3528 Dec 10 j 04:17	0° ∀	
min. Earth dist.	-3533 Apr 01 j 08:03	11°M/00'00	4.30585 AU	evening set	-3527 Mar 27 j 19:54	18°) 30′08	
direct	-3533 Jun 01 j 06:18	6°Mp11'15					
evening set	-3533 Oct 04 j 22:09	24° m 20'49		conjunction	-3527 Apr 10 j 13:47	21°) 39′36	-1°-5'00
max. Earth dist.	-3533 Oct 15 j 22:13	26°M 51'16	6.25338 AU	minimum elong	-3527 Apr 10 j 13:51	21°) 39′38	1°05'02
				max. Earth dist.	-3527 Apr 12 j 09:30	22°) €04'45	6.12164 AU
conjunction	-3533 Oct 17 j 11:04	27° My $12'20$	1°00'41	morning rise	-3527 Apr 24 j 08:35	24°) (49′22	
minimum elong	-3533 Oct 17 j 11:07	27° Mp 12'22	1°00'42		-3527 May 17 j 13:33	0 ° Υ	
morning rise	-3533 Oct 29 j 23:32	0° ჲ 03'51		retrograde	-3527 Aug 29 j 21:01		
	-3533 Oct 29 j 16:45	0∘ ⊽		min. Earth dist.	-3527 Oct 27 j 08:50	8° Ƴ 56′05	4.17779 AU
retrograde	-3532 Mar 03 j 05:41	18° ≏ 22'14		opposition	-3527 Oct 28 j 06:39	8° Ƴ 48'40	-1°-10'-58
opposition	-3532 May 03 j 07:32	13° ≏ 28'30	1°03'13	direct	-3527 Dec 26 j 13:08	3° Ƴ 47'18	
min. Earth dist.	-3532 May 04 j 05:35	13° ≏ 21'28	4.19673 AU	evening set	-3526 May 02 j 16:41	22° Y 26'24	
direct	-3532 Jul 03 j 11:14	8° ≏ 33'02					
evening set	-3532 Nov 05 j 03:39	27° ≏ 05'36		conjunction	-3526 May 16 j 10:35		0°-27'-15
				minimum elong	-3526 May 16 j 10:37		0°27'14
conjunction	-3532 Nov 17 j 19:52	0°M03'17	0°21'10	max. Earth dist.	-3526 May 17 j 10:08		6.23520 AU
minimum elong	-3532 Nov 17 j 19:54	0°M03'18	0°21'06	morning rise	-3526 May 30 j 03:34		
max. Earth dist.	-3532 Nov 17 j 00:12	29° ≙ 51'46	6.14004 AU		-3526 Jun 05 j 13:02	0°8	
	-3532 Nov 17 j 14:16	0°M			-3526 Aug 30 j 00:32		
morning rise	-3532 Nov 30 j 13:26	3°M01'52		retrograde	-3526 Oct 01 j 02:59		
	-3531 Jan 25 j 17:34				-3526 Nov 02 j 01:20		
retrograde	-3531 Apr 08 j 04:01	22°M17'51		opposition	-3526 Nov 29 j 15:50		
desc. node	-3531 May 12 j 20:45			min. Earth dist.	-3526 Nov 29 j 08:06		4.28870 AU
opposition	-3531 Jun 08 j 02:33		0°-4'-47	asc. node	-3525 Jan 11 j 19:34	7° 8 04'12	
min. Earth dist.	-3531 Jun 08 j 06:42		4.08742 AU	direct	-3525 Jan 29 j 05:44	6° 8 35'05	
	-3531 Jun 26 j 23:16				-3525 Apr 19 j 00:34		
direct	-3531 Aug 06 j 19:53	12°M27'20		evening set	-3525 Jun 05 j 22:10	24° 8 48'41	
	-3531 Sep 15 j 23:13	15°M			2525 1 10:10.41	270 4 4 615 6	0017150
. ,	-3531 Dec 03 j 00:53	0° √ ¹		conjunction	-3525 Jun 19 j 10:41		0°17'52
evening set	-3531 Dec 09 j 02:06	1° ≯ 25'30		minimum elong	-3525 Jun 19 j 10:40		0°17'59
aoning-ti	2521 D 22 : 00 22	40.700157	00 261 50	max. Earth dist.	-3525 Jun 19 j 09:40	27° 8 46′22 0° Ⅱ	6.33553 AU
conjunction	-3531 Dec 22 j 00:23	4°× 7 29'57	0°-26'-58		-3525 Jun 29 j 12:34		
minimum elong	-3531 Dec 22 j 00:21	4°× 7 29'56	0°27'07	morning rise	-3525 Jul 02 j 20:23	0° Ⅱ 43'42	
max. Earth dist.	-3531 Dec 22 j 07:03	4° ₹ 33'55 7° ₹ 35'59	6.04504 AU	retrograde opposition	-3525 Nov 01 j 05:23 -3525 Dec 31 j 01:09	18° Ⅲ 02'38 13° Ⅲ 06'40	0°55'53
morning rise	-3530 Jan 04 j 01:22			* *	•		
retrograde	-3530 May 15 j 10:16	27°× 7 40'48	10 14! 1	min. Earth dist.	-3525 Dec 31 j 09:44		4.37103 AU
opposition min. Earth dist.	-3530 Jul 14 j 21:55 -3530 Jul 14 j 07:59	22° х 39'43 22° х 44'21	-1°-14'-1 4.01627 AU	direct	-3524 Mar 01 j 19:54 -3524 Jul 07 j 13:30	8° Ⅱ 03'03	
	5	17° × ⁷ 46'31	4.01027 AU	evening set	-5524 Jul 0/ J 15.50	23 H 3917	
direct	-3530 Sep 11 j 11:18 -3530 Dec 14 j 04:13	1/* メ ・46/31		conjunction	-3524 Jul 20 j 16:58	28°π51'27	0°56'33
evening set	-3529 Jan 13 j 20:48	7°る03'42		minimum elong	-3524 Jul 20 j 16:54		0°56'40
evening set	-3329 Jan 13 j 20.46	7 003 42		max. Earth dist.	-3524 Jul 20 j 10:34 -3524 Jul 19 j 15:48		6.39304 AU
conjunction	-3529 Jan 27 j 02:26	10°る13'09	-1°-6'-21	max. Latui Uist.	-3524 Jul 19 j 15:48 -3524 Jul 25 j 22:14	28°Щ37'42 0°9	0.33304 AU
minimum elong	-3529 Jan 27 j 02:20	10°る13'07	1°06'29	morning rise	-3524 Aug 02 j 17:15	1°9542'01	
max. Earth dist.	-3529 Jan 27 j 02:23 -3529 Jan 28 j 11:22	10°る1307 10°る32'50	6.00364 AU	retrograde	-3524 Aug 02 j 17:15 -3524 Nov 30 j 23:14	1°9942'01 18°9541'14	
morning rise	-3529 Jan 28 j 11:22 -3529 Feb 09 j 11:21	10 3 32 30	0.00304 AU	opposition	-3523 Jan 30 j 04:54	13°9548'16	1°41'46
morning fise	-3529 Feb 09 j 11:21 -3529 May 02 j 16:49	13°€24°22 0°≈		opposition min. Earth dist.	-3523 Jan 30 j 04:54 -3523 Jan 31 j 03:44		4.40151 AU
retrograde	-3529 May 02 j 16:49 -3529 Jun 21 j 17:05	0°≈ 3°≈46'33		direct	-3523 Jan 31 j 03:44 -3523 Apr 02 j 18:02	8°945'35	7.70131 AU
retrograde	-3529 Jun 21 j 17:05 -3529 Aug 10 j 23:56	3°®₹6°33		evening set	-3523 Apr 02 j 18:02 -3523 Aug 08 j 01:07		
opposition				evening set	-5525 Aug 08 J 01:0/	20 ئى 20004	
ODDOSHIOH	_3520 Aug 20 : 16:11	28° ₹ /2110	-1°-56' 11	may Farth dist	-3523 Aug 10:05:27	2000203120	6 30200 ATT
min. Earth dist.	-3529 Aug 20 j 16:11 -3529 Aug 19 j 12:42		-1°-56'-11 4.01089 AU	max. Earth dist.	-3523 Aug 19 j 05:27	29° © 03'20	6.39299 AU

Attantian astronom	ical recordstyle is used. Th	2522	in actromomical acr	untina atrila ia tha riaan	3524 BCE in historical of	aunting style	
conjunction	-3523 Aug 20 j 20:07	•		morning rise			
3		29°524'36		morning rise	-3517 Feb 14 j 15:45 -3517 Apr 07 j 15:00	0°≈	
minimum elong	-3523 Aug 20 j 20:06	29° © 24'36 0°Ω	1°19'00		1 2	0°≈ 8°≈53'44	
	-3523 Aug 23 j 12:19			retrograde	-3517 Jun 26 j 18:10		10 501 22
morning rise	-3523 Sep 02 j 12:01	2°Ω11'47		opposition	-3517 Aug 25 j 16:45	3°≈49'10 3°≈58'51	-1°-58'-33
	-3523 Nov 07 j 22:37			min. Earth dist.	-3517 Aug 24 j 12:12 -3517 Sep 27 j 03:43	30°Rる	4.01879 AU
retrograde	-3522 Jan 01 j 04:30	19° Ω 17'32		T' A		• -	
	-3522 Feb 26 j 10:28	15°RΩ	1°59'29	direct	-3517 Oct 22 j 16:34	28°る53'36 0°≈	
opposition	-3522 Mar 02 j 21:16	14°Ω26'01			-3517 Nov 17 j 06:38		
min. Earth dist.	-3522 Mar 04 j 03:32 -3522 May 04 j 12:32		4.37219 AU		-3516 Feb 11 j 04:27		
direct	-3522 May 04 j 12:32 -3522 Jul 07 j 15:20	9° Ω 25'25 15° Ω		evening set	-3516 Feb 24 j 23:33	18***1133	
evening set	-3522 Sep 08 j 01:20	27° Ω 22'03		conjunction	-3516 Mar 09 j 13:14	2100022126	-1°-20'-16
max. Earth dist.	-3522 Sep 08 j 01.20 -3522 Sep 18 j 19:09	29° Ω 46'03	6.33572 AU	minimum elong	-3516 Mar 09 j 13:14		1°20'22
max. Earth dist.	-3522 Sep 19 j 20:02	0°m	0.55572 AU	max. Earth dist.	-3516 Mar 11 j 13:08		6.04523 AU
	-5522 Sep 19 j 20.02	עווי		morning rise	-3516 Mar 23 j 05:21		0.04323 AU
conjunction	-3522 Sep 20 j 14:55	0° m) 10'35	1°19'09	morning risc	-3516 Apr 16 j 00:50	0°)	
minimum elong	-3522 Sep 20 j 14:57	0° m) 10'36	1°19'14	retrograde	-3516 Jul 31 j 13:18		
morning rise	-3522 Scp 20 j 14.57 -3522 Oct 03 j 02:52	2° m) 58'25	1 1914	min. Earth dist.	-3516 Sep 27 j 21:22	9°\(\frac{14}{24}\)36	4.08756 AU
retrograde	-3522 Oct 03 j 02.32 -3521 Feb 02 j 19:23	20° m) 35'09		opposition	-3516 Sep 27 j 21:22 -3516 Sep 29 j 01:59	9° X 19'50	-1°-49'-52
opposition	-3521 Apr 04 j 18:45	15° To 43'16	1°43'25	direct	-3516 Nov 26 j 11:31	4° ∺ 21'01	-1 -49-32
min. Earth dist.	-3521 Apr 04 j 18:45 -3521 Apr 06 j 01:04	15° m 33'37	4.29050 AU	evening set	-3515 Apr 01 j 19:51		
direct	-3521 Apr 00 j 01:04 -3521 Jun 05 j 21:11	10° m 45'24	4.29030 AO	evening set	-5515 Apr 01 j 19.51	23 /(22 13	
evening set	-3521 Juli 03 j 21.11 -3521 Oct 09 j 08:51	28° m) 58'26		conjunction	-3515 Apr 15 j 13:56	26°¥21'06	-1°00'-48
evening set	-3521 Oct 09 j 08:31 -3521 Oct 13 j 20:47	0° ⊽		minimum elong	-3515 Apr 15 j 14:00		1°00'49
max. Earth dist.	-3521 Oct 13 j 20.47 -3521 Oct 20 j 11:05	0 = 1° ⊆ 30'42	6.23660 AU	max. Earth dist.	-3515 Apr 17 j 06:22		6.13780 AU
max. Earth dist.	-5521 Oct 20 j 11.05	1 = 30 42	0.23000 AU	morning rise	-3515 Apr 17 j 00:22 -3515 Apr 29 j 08:56		0.13780 AC
conjunction	-3521 Oct 21 j 22:05	1° ≏ 50'47	0°56'08	morning rise	-3515 Apr 29 j 08:50	29 γ (4011	
minimum elong	-3521 Oct 21 j 22:09	1° ⊆ 50'48	0°56'08	retrograde		18° Υ 34'14	
morning rise	-3521 Oct 21 j 22:09 -3521 Nov 03 j 11:04	1 = 30 48 4° £ 43'14	0 30 08	opposition	-3515 Sep 03 j 08.18 -3515 Nov 01 j 18:58	13° Υ 31'11	-1°-2'-57
retrograde	-3520 Mar 08 j 03:42	23° £ 09'53		min. Earth dist.	-3515 Nov 01 j 18:38	13° Y 38'05	4.19370 AU
opposition	-3520 May 08 j 06:11	18° 2 15'49	0°54'41	direct	-3515 Dec 31 j 05:20	8° Υ 29'27	4.19370 AO
min. Earth dist.	-3520 May 09 j 01:01	18° ⊆ 1349 18° ⊆ 09'47	4.17992 AU	evening set	-3514 May 07 j 11:21		
direct	-3520 Jul 08 j 03:57	13° ⊆ 20'48	4.17 <i>))2 R</i> O	evening set	-3514 May 07 j 11:21	0°8	
direct	-3520 Nov 01 j 09:12	0°M			3314 May 20 j 13.13	v O	
evening set	-3520 Nov 01 j 05:12	1°M57'14		conjunction	-3514 May 21 j 04:55	0° 8 08'46	0°-21'-11
evening see	5520 NOV 05 j 15.15	1 1100711		minimum elong	-3514 May 21 j 04:56	0° 8 08'47	0°21'08
conjunction	-3520 Nov 22 j 12:42	4°M55'52	0°14'34	max. Earth dist.	-3514 May 22 j 01:07	0° 8 20'04	6.24983 AU
minimum elong	-3520 Nov 22 j 12:43	4°ML55'53		morning rise	-3514 Jun 03 j 21:07	3° 8 11'48	0.2 .9 05 110
behind sun begin	-3520 Nov 22 j 08:58	4°ML53'41	0 1 1 3 0	morning rise	-3514 Aug 01 j 07:44		
behind sun end	-3520 Nov 22 j 16:29	4°M58'05		retrograde	-3514 Oct 05 j 11:57		
max. Earth dist.	-3520 Nov 21 j 21:05	4°M46'42	6.12495 AU	asc. node	-3514 Nov 22 j 22:03		
morning rise	-3520 Dec 05 j 07:09	7°M55'31		opposition	-3514 Dec 04 j 00:21		0°01'52
morning 115¢	-3519 Jan 05 j 16:27	15°M		min. Earth dist.	•	10 00000	0 0102
desc. node	-3519 Mar 22 j 17:41	26°M35'32			-3514 Dec 03119:31	16° 呂 10'32	4.30077 AU
retrograde					-3514 Dec 03 j 19:31 -3514 Dec 12 j 16:22		4.30077 AU
	-3519 Apr 13 i 09:04				-3514 Dec 12 j 16:22	15° ₹ 8	4.30077 AU
opposition	-3519 Apr 13 j 09:04 -3519 Jun 13 j 05:47	27°M19'14	0°-15'-4	direct	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56	15°R 8 11° 8 05'31	4.30077 AU
opposition min. Earth dist.	-3519 Jun 13 j 05:47	27°M19'14 22°M21'37	0°-15'-4 4.07541 AU	direct	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06	15°R8 11°805'31 15°8	4.30077 AU
min. Earth dist.	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39	27°M19'14 22°M21'37 22°M21'00	0°-15'-4 4.07541 AU		-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56	15°R8 11°805'31 15°8 29°816'46	4.30077 AU
	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29	27°M19'14 22°M21'37		direct	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06	15°R8 11°805'31 15°8	4.30077 AU
min. Earth dist. direct	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39	27°M19'14 22°M21'37 22°M21'00 17°M28'22		direct evening set	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 13 j 18:59	15°R8 11°805'31 15°8 29°816'46	
min. Earth dist.	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37	27°M19'14 22°M21'37 22°M21'00 17°M28'22 0°×7		direct evening set conjunction	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 13 j 18:59 -3513 Jun 23 j 23:20	15°R8 11°805'31 15°8 29°816'46 0°II 2°II14'13	0°23'49
min. Earth dist. direct evening set	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15	27°M19'14 22°M21'37 22°M21'00 17°M28'22 0°×7	4.07541 AU	direct evening set	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 13 j 18:59 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:19	15°R8 11°805'31 15°8 29°816'46 0°耳	0°23'49
min. Earth dist. direct evening set conjunction	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15 -3519 Dec 26 j 23:32	27°M19'14 22°M21'37 22°M21'00 17°M28'22 0°×7 6°×729'21	4.07541 AU	direct evening set conjunction minimum elong max. Earth dist.	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 13 j 18:59 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:19 -3513 Jun 23 j 17:55	15°R8 11°805'31 15°8 29°816'46 0°用 2°用14'13 2°用14'12	0°23'49 0°23'55
min. Earth dist. direct evening set conjunction minimum elong	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15 -3519 Dec 26 j 23:32 -3519 Dec 26 j 23:29	27°M19'14 22°M21'37 22°M21'00 17°M28'22 0° ×7 6° ×729'21 9° ×734'34 9° ×734'34	4.07541 AU 0°-33'-26	direct evening set conjunction minimum elong max. Earth dist. morning rise	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 13 j 18:59 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:19 -3513 Jun 23 j 17:55 -3513 Jul 07 j 07:57	15°Rδ 11°δ05'31 15°δ 29°δ16'46 0°Π 2°Π14'13 2°Π14'12 2°Π11'15 5°Π10'10	0°23'49 0°23'55
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15 -3519 Dec 26 j 23:32	27°M.19'14 22°M.21'37 22°M.21'00 17°M.28'22 0° 🗷 6° 🗷 29'21 9° 🗷 34'34 9° 🗷 34'32 9° 🗷 41'12	4.07541 AU 0°-33'-26 0°33'34	direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 13 j 18:59 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:19 -3513 Jun 23 j 17:55 -3513 Jul 07 j 07:57 -3513 Nov 05 j 11:25	15°R8 11°805'31 15°8 29°816'46 0° II 2° II 14'13 2° II 14'12 2° II 11'15 5° II 10'10 22° II 25'44	0°23'49 0°23'55 6.34409 AU
min. Earth dist. direct evening set conjunction minimum elong	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15 -3519 Dec 26 j 23:32 -3519 Dec 26 j 23:29 -3519 Dec 27 j 10:41 -3518 Jan 09 j 01:36	27°M19'14 22°M21'37 22°M21'00 17°M28'22 0° ×7 6° ×729'21 9° ×734'34 9° ×734'34	4.07541 AU 0°-33'-26 0°33'34	direct evening set conjunction minimum elong max. Earth dist. morning rise	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 13 j 18:59 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:19 -3513 Jun 23 j 17:55 -3513 Jul 07 j 07:57 -3513 Nov 05 j 11:25 -3512 Jan 04 j 08:24	15°R8 11°805'31 15°8 29°816'46 0°Π 2°Π14'13 2°Π14'12 2°Π11'15 5°Π10'10 22°Π25'44 17°Π30'14	0°23'49 0°23'55
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15 -3519 Dec 26 j 23:32 -3519 Dec 26 j 23:29 -3519 Dec 27 j 10:41	27°M.19'14 22°M.21'37 22°M.21'00 17°M.28'22 0° х 6° х 29'21 9° х 34'34 9° х 34'32 9° х 41'12 12° х 41'24	4.07541 AU 0°-33'-26 0°33'34	direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 13 j 18:59 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:19 -3513 Jun 23 j 17:55 -3513 Jul 07 j 07:57 -3513 Nov 05 j 11:25	15°R8 11°805'31 15°8 29°816'46 0°Π 2°Π14'13 2°Π14'12 2°Π11'15 5°Π10'10 22°Π25'44 17°Π30'14	0°23'49 0°23'55 6.34409 AU 1°03'30
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15 -3519 Dec 26 j 23:32 -3519 Dec 26 j 23:29 -3519 Dec 27 j 10:41 -3518 Jan 09 j 01:36 -3518 Apr 07 j 10:28 -3518 May 20 j 15:28	27°M.19'14 22°M.21'37 22°M.21'00 17°M.28'22 0° 🗷 6° 🗷 29'21 9° 🗷 34'34 9° 🗷 34'32 9° 🗷 41'12 12° 🛣 41'24 0° 🛣	4.07541 AU 0°-33'-26 0°33'34	direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 13 j 18:59 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:19 -3513 Jun 23 j 17:55 -3513 Jul 07 j 07:57 -3513 Nov 05 j 11:25 -3512 Jan 04 j 08:24 -3512 Jan 04 j 19:06 -3512 Mar 06 j 05:55	15°R8 11°805'31 15°8 29°816'46 0°11 2°114'13 2°114'12 2°111'15 5°110'10 22°125'44 17°130'14 17°126'43	0°23'49 0°23'55 6.34409 AU 1°03'30
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15 -3519 Dec 26 j 23:32 -3519 Dec 26 j 23:29 -3519 Dec 27 j 10:41 -3518 Jan 09 j 01:36 -3518 Apr 07 j 10:28	27°M.19'14 22°M.21'37 22°M.21'00 17°M.28'22 0° 🗷 6° 🗷 29'21 9° 🗷 34'34 9° 🗷 34'32 9° 🗷 41'12 12° 🛣 41'24 0° 📆 2° 📆 49'55	4.07541 AU 0°-33'-26 0°33'34	direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 13 j 18:59 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:19 -3513 Jun 23 j 17:55 -3513 Jul 07 j 07:57 -3513 Nov 05 j 11:25 -3512 Jan 04 j 08:24 -3512 Jan 04 j 19:06	15°R8 11°805'31 15°8 29°816'46 0°Π 2°Π14'13 2°Π14'12 2°Π11'15 5°Π10'10 22°Π25'44 17°Π30'14 17°Π26'43 12°Π26'37	0°23'49 0°23'55 6.34409 AU 1°03'30
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15 -3519 Dec 26 j 23:32 -3519 Dec 26 j 23:29 -3519 Dec 27 j 10:41 -3518 Jan 09 j 01:36 -3518 Apr 07 j 10:28 -3518 May 20 j 15:28 -3518 Jul 02 j 23:50	27°M.19'14 22°M.21'37 22°M.21'00 17°M.28'22 0° 🗷 6° 🗷 29'21 9° 🗷 34'34 9° 🗷 34'32 9° 🗷 41'12 12° 🗷 41'24 0° 📆 2° 📆 49'55 30° R 🗷	4.07541 AU 0°-33'-26 0°33'34 6.03731 AU 4.01397 AU	direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:19 -3513 Jun 23 j 17:55 -3513 Jun 07 j 07:57 -3513 Nov 05 j 11:25 -3512 Jan 04 j 08:24 -3512 Jan 04 j 19:06 -3512 Mar 06 j 05:55 -3512 Jul 10 j 06:27	15°R8 11°805'31 15°8 29°816'46 0°Π 2°Π14'13 2°Π14'12 2°Π11'15 5°Π10'10 22°Π25'44 17°Π30'14 17°Π26'43 12°Π26'37 0°©	0°23'49 0°23'55 6.34409 AU 1°03'30
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist.	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15 -3519 Dec 26 j 23:32 -3519 Dec 26 j 23:29 -3519 Dec 27 j 10:41 -3518 Jan 09 j 01:36 -3518 Apr 07 j 10:28 -3518 May 20 j 15:28 -3518 Jul 02 j 23:50 -3518 Jul 19 j 09:06	27°M.19'14 22°M.21'37 22°M.21'00 17°M.28'22 0°X' 6°X'29'21 9°X'34'34 9°X'34'32 9°X'41'12 12°X'41'24 0°G 2°G49'55 30°RX' 27°X'53'58	4.07541 AU 0°-33'-26 0°33'34 6.03731 AU 4.01397 AU	direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:19 -3513 Jun 23 j 17:55 -3513 Jul 07 j 07:57 -3513 Nov 05 j 11:25 -3512 Jan 04 j 08:24 -3512 Jan 04 j 19:06 -3512 Mar 06 j 05:55 -3512 Jul 10 j 06:27 -3512 Jul 10 j 06:27 -3512 Jul 11 j 23:40	15°R8 11°805'31 15°8 29°816'46 0°用 2°用14'13 2°用14'12 2°用11'15 5°用10'10 22°用25'44 17°用30'14 17°用26'43 12°用26'37 0°愛 0°愛22'21	0°23'49 0°23'55 6.34409 AU 1°03'30 4.37588 AU
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15 -3519 Dec 26 j 23:32 -3519 Dec 26 j 23:29 -3519 Dec 27 j 10:41 -3518 Jan 09 j 01:36 -3518 Apr 07 j 10:28 -3518 May 20 j 15:28 -3518 Jul 02 j 23:50 -3518 Jul 19 j 09:06 -3518 Jul 20 j 01:58	27°M.19'14 22°M.21'37 22°M.21'00 17°M.28'22 0°X' 6°X'29'21 9°X'34'34 9°X'34'32 9°X'41'12 12°X'41'24 0°G 2°G49'55 30°RX' 27°X'53'58 27°X'48'22	4.07541 AU 0°-33'-26 0°33'34 6.03731 AU 4.01397 AU	direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:19 -3513 Jun 23 j 17:55 -3513 Jul 07 j 07:57 -3513 Nov 05 j 11:25 -3512 Jan 04 j 08:24 -3512 Jan 04 j 19:06 -3512 Mar 06 j 05:55 -3512 Jul 10 j 06:27 -3512 Jul 10 j 06:27 -3512 Jul 11 j 23:40	15°R8 11°805'31 15°8 29°816'46 0°用 2°用14'13 2°用14'12 2°用11'15 5°用10'10 22°用25'44 17°用30'14 17°用26'43 12°用26'37 0°愛 0°愛22'21	0°23'49 0°23'55 6.34409 AU 1°03'30 4.37588 AU
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15 -3519 Dec 26 j 23:32 -3519 Dec 26 j 23:29 -3519 Dec 27 j 10:41 -3518 Jan 09 j 01:36 -3518 Apr 07 j 10:28 -3518 Jul 02 j 23:50 -3518 Jul 19 j 09:06 -3518 Jul 20 j 01:58 -3518 Sep 16 j 12:08	27°M.19'14 22°M.21'37 22°M.21'00 17°M.28'22 0°×7 6°×729'21 9°×734'34 9°×734'32 9°×741'12 12°×741'24 0°S 2°S49'55 30°R×7 27°×753'58 27°×748'22 22°×755'04 0°S	4.07541 AU 0°-33'-26 0°33'34 6.03731 AU 4.01397 AU	direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:19 -3513 Jun 23 j 17:55 -3513 Jul 07 j 07:57 -3513 Nov 05 j 11:25 -3512 Jan 04 j 08:24 -3512 Jan 04 j 19:06 -3512 Mar 06 j 05:55 -3512 Jul 10 j 06:27 -3512 Jul 11 j 23:40 -3512 Jul 23 j 23:34	15°R8 11°805'31 15°8 29°816'46 0°瓜 2°瓜14'13 2°瓜14'12 2°瓜11'15 5°瓜10'10 22°瓜25'44 17°瓜30'14 17°瓜26'43 12°瓜26'37 0°野 0°野22'21 2°野59'30	0°23'49 0°23'55 6.34409 AU 1°03'30 4.37588 AU 6.39386 AU
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15 -3519 Dec 26 j 23:32 -3519 Dec 26 j 23:29 -3519 Dec 27 j 10:41 -3518 Jan 09 j 01:36 -3518 Apr 07 j 10:28 -3518 Jul 02 j 23:50 -3518 Jul 02 j 23:50 -3518 Jul 20 j 01:58 -3518 Sep 16 j 12:08 -3518 Nov 23 j 22:54	27°M.19'14 22°M.21'37 22°M.21'00 17°M.28'22 0°×7 6°×729'21 9°×734'34 9°×734'32 9°×741'12 12°×741'24 0°S 2°S49'55 30°R×7 27°×753'58 27°×748'22 22°×755'04 0°S	4.07541 AU 0°-33'-26 0°33'34 6.03731 AU 4.01397 AU	direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:19 -3513 Jun 23 j 17:55 -3513 Jul 07 j 07:57 -3513 Nov 05 j 11:25 -3512 Jan 04 j 08:24 -3512 Jan 04 j 19:06 -3512 Mar 06 j 05:55 -3512 Jul 10 j 06:27 -3512 Jul 10 j 06:27 -3512 Jul 23 j 23:34 -3512 Jul 25 j 02:01	15°R8 11°805'31 15°8 29°816'46 0°瓜 2°瓜14'13 2°瓜14'12 2°瓜11'15 5°瓜10'10 22°瓜25'44 17°瓜30'14 17°瓜26'43 12°瓜26'37 0°勁 0°勁22'21 2°勁59'30 3°勁13'59	0°23'49 0°23'55 6.34409 AU 1°03'30 4.37588 AU 6.39386 AU 1°00'45
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15 -3519 Dec 26 j 23:32 -3519 Dec 26 j 23:29 -3519 Dec 27 j 10:41 -3518 Jan 09 j 01:36 -3518 Apr 07 j 10:28 -3518 Jul 02 j 23:50 -3518 Jul 02 j 23:50 -3518 Jul 20 j 01:58 -3518 Sep 16 j 12:08 -3518 Nov 23 j 22:54	27°M.19'14 22°M.21'37 22°M.21'00 17°M.28'22 0°X 6°X-29'21 9°X-34'34 9°X-34'32 9°X-41'12 12°X-41'24 0°T 20°T.49'55 30°R.X 27°X-53'58 27°X-53'58 27°X-55'04 0°T 12°T.12'37	4.07541 AU 0°-33'-26 0°33'34 6.03731 AU 4.01397 AU	direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 13 j 18:59 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:19 -3513 Jun 23 j 17:55 -3513 Jul 07 j 07:57 -3513 Nov 05 j 11:25 -3512 Jan 04 j 08:24 -3512 Jan 04 j 19:06 -3512 Mar 06 j 05:55 -3512 Jul 10 j 06:27 -3512 Jul 10 j 06:27 -3512 Jul 23 j 23:34 -3512 Jul 25 j 02:01 -3512 Jul 25 j 01:58	15°R8 11°805'31 15°8 29°816'46 0°Ⅱ 2°Ⅱ14'13 2°Ⅱ14'12 2°Ⅱ11'15 5°Ⅱ10'10 22°Ⅱ25'44 17°Ⅱ30'14 17°Ⅱ26'43 12°Ⅱ26'37 0°5 0°522'21 2°559'30 3°513'58	0°23'49 0°23'55 6.34409 AU 1°03'30 4.37588 AU 6.39386 AU 1°00'45
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15 -3519 Dec 26 j 23:32 -3519 Dec 26 j 23:29 -3519 Dec 27 j 10:41 -3518 Jun 09 j 01:36 -3518 Apr 07 j 10:28 -3518 Jul 02 j 23:50 -3518 Jul 19 j 09:06 -3518 Jul 20 j 01:58 -3518 Sep 16 j 12:08 -3518 Nov 23 j 22:54 -3517 Jan 18 j 23:21	27°M.19'14 22°M.21'37 22°M.21'00 17°M.28'22 0°X 6°X-29'21 9°X-34'34 9°X-34'32 9°X-41'12 12°X-41'24 0°T 2°T-49'55 30°R.X 27°X-53'58 27°X-53'58 27°X-55'04 0°T 12°T-12'37	4.07541 AU 0°-33'-26 0°33'34 6.03731 AU 4.01397 AU -1°-22'-4	direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 13 j 18:59 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:19 -3513 Jun 23 j 17:55 -3513 Jul 07 j 07:57 -3513 Nov 05 j 11:25 -3512 Jan 04 j 08:24 -3512 Jan 04 j 19:06 -3512 Mar 06 j 05:55 -3512 Jul 10 j 06:27 -3512 Jul 10 j 06:27 -3512 Jul 23 j 23:34 -3512 Jul 25 j 02:01 -3512 Jul 25 j 02:01 -3512 Jul 25 j 01:58 -3512 Aug 07 j 00:56	15°R8 11°805'31 15°8 29°816'46 0°II 2°II14'13 2°II14'12 2°II1'15 5°I10'10 22°II25'44 17°II30'14 17°II26'43 12°II26'37 0°S 0°S22'21 2°S59'30 3°S13'59 3°S13'58 6°S03'59	0°23'49 0°23'55 6.34409 AU 1°03'30 4.37588 AU 6.39386 AU 1°00'45
min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction	-3519 Jun 13 j 05:47 -3519 Jun 13 j 07:39 -3519 Aug 11 j 19:29 -3519 Nov 15 j 18:37 -3519 Dec 14 j 00:15 -3519 Dec 26 j 23:32 -3519 Dec 26 j 23:29 -3519 Dec 27 j 10:41 -3518 Jun 09 j 01:36 -3518 Apr 07 j 10:28 -3518 Jul 02 j 23:50 -3518 Jul 02 j 23:50 -3518 Jul 19 j 09:06 -3518 Jul 20 j 01:58 -3518 Sep 16 j 12:08 -3518 Nov 23 j 22:54 -3517 Jan 18 j 23:21	27°M.19'14 22°M.21'37 22°M.21'00 17°M.28'22 0° *\begin{align*} 6° *\begin{align*} 9° *\begin{align*} 34'34 9° *\begin{align*} 44'12 12° *\begin{align*} 44'24 0° *\begin{align*} 2° *\begin{align*} 48'22 22° *\begin{align*} 55'04 0° *\begin{align*} 12° *\begin{align*} 12° *\begin{align*} 15° *\begin{align*} 27' *\begin{align*} 22' *\begin{align*} 21' *\begin{align*} 21' *\begin{align*} 21' *\begin{align*} 21' *\begin{align*} 22' 18	4.07541 AU 0°-33'-26 0°33'34 6.03731 AU 4.01397 AU -1°-22'-4	direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-3514 Dec 12 j 16:22 -3513 Feb 02 j 18:56 -3513 Mar 26 j 23:06 -3513 Jun 10 j 11:56 -3513 Jun 23 j 23:20 -3513 Jun 23 j 23:29 -3513 Jun 23 j 17:55 -3513 Jun 23 j 17:55 -3513 Jun 07 j 07:57 -3513 Nov 05 j 11:25 -3512 Jan 04 j 08:24 -3512 Jan 04 j 19:06 -3512 Mar 06 j 05:55 -3512 Jul 10 j 06:27 -3512 Jul 10 j 06:27 -3512 Jul 23 j 23:34 -3512 Jul 25 j 02:01 -3512 Jul 25 j 01:58 -3512 Aug 07 j 00:56 -3512 Dec 05 j 06:31	15°R8 11°805'31 15°8 29°816'46 0°II 2°II14'13 2°II14'12 2°II11'15 5°I10'10 22°I25'44 17°I30'14 17°I26'43 12°I26'37 0°S 0°S22'21 2°S59'30 3°S13'59 3°S13'58 6°S03'59 23°S03'24 18°S10'45	0°23'49 0°23'55 6.34409 AU 1°03'30 4.37588 AU 6.39386 AU 1°00'45 1°00'53

3	ical year style is used: The		Č			, 1	
direct	-3511 Apr 07 j 03:34	-			-3506 Oct 26 j 11:54		
	-3511 Aug 07 j 19:59	$0^{\circ}\Omega$		evening set	-3505 Jan 24 j 00:36		
evening set	-3511 Aug 12 j 09:30	0° Ω 59'42		_	-		
max. Earth dist.	-3511 Aug 23 j 10:26	3° Ω 25′29	6.38630 AU	conjunction	-3505 Feb 06 j 08:13	20° පි 26'50	-1°-13'-16
				minimum elong	-3505 Feb 06 j 08:10	20° පි 26'48	1°13'24
conjunction	-3511 Aug 25 j 03:26	3° Ω 48'07	1°20'17	max. Earth dist.	-3505 Feb 07 j 22:38		6.00856 AU
minimum elong	-3511 Aug 25 j 03:25	3° Ω 48'06	1°20'23	morning rise	-3505 Feb 19 j 18:57		
morning rise	-3511 Sep 06 j 18:42	6° Ω 35'14			-3505 Mar 19 j 11:08	0° ≈	
	,			retrograde	-3505 Jul 01 j 19:43	13° ≈ 56'36	
retrograde	-3510 Jan 05 j 17:05	23° Ω 44'28		min. Earth dist.	-3505 Aug 29 j 11:20	9° ≈ 01′29	4.02494 AU
opposition	-3510 Mar 07 j 10:07	18° £ 52'58	1°59'16	opposition	-3505 Aug 30 j 15:43	8°≈51'51	-2°00'-4
min. Earth dist.	-3510 Mar 08 j 17:01	18° Ω 43'07 15°R Ω	4.36236 AU	direct	-3505 Oct 27 j 15:42	3°≈55'53	
direct	-3510 Apr 11 j 11:07 -3510 May 09 j 00:44	13° € 52'40		evening set	-3504 Jan 24 j 10:37 -3504 Mar 01 j 02:02		
direct	-3510 Jun 05 j 14:41	15 δί 32 40		evening set	-3304 Mai 01 j 02.02	23 212 34	
	-3510 Sep 04 j 00:49	0°m		conjunction	-3504 Mar 14 j 16:25	26°223'30	-1°-19'-13
evening set	-3510 Sep 12 j 09:52	1° m)51'14		minimum elong	-3504 Mar 14 j 16:27		1°19'19
max. Earth dist.	-3510 Sep 23 j 05:24	4° Mp 16'36	6.32359 AU	max. Earth dist.	-3504 Mar 16 j 15:11		6.05472 AU
				morning rise	-3504 Mar 28 j 09:22		
conjunction	-3510 Sep 24 j 23:17	4° Mp40′08	1°17'15	C	-3504 Mar 30 j 03:33	0° ∀	
minimum elong	-3510 Sep 24 j 23:19	4° ™ 40'09	1°17'19	retrograde	-3504 Aug 05 j 07:02	19°) (19′27	
morning rise	-3510 Oct 07 j 10:56	7° Mp 28′22		opposition	-3504 Oct 03 j 19:53	14°) 14′30	-1°-45'-16
retrograde	-3509 Feb 07 j 11:19	25°M 10'59		min. Earth dist.	-3504 Oct 02 j 15:24	14°) 24′14	4.09938 AU
opposition	-3509 Apr 09 j 12:24	20° m 18'51	1°38'21	direct	-3504 Dec 01 j 07:18	9°) 15′14	
min. Earth dist.	-3509 Apr 10 j 16:42	20°M/09'51	4.27685 AU	evening set	-3503 Apr 06 j 19:51		
direct	-3509 Jun 10 j 10:40	15° m 21'25			-3503 Apr 14 j 14:19	0 ° $\mathbf{\Upsilon}$	
	-3509 Sep 27 j 18:00	0∘ ত				••	
evening set	-3509 Oct 13 j 20:08	3° Ω 36'57		conjunction	-3503 Apr 20 j 14:16	1° Y 22'15	0°-56'-11
max. Earth dist.	-3509 Oct 25 j 00:28	6° ≏ 10'56	6.22257 AU	minimum elong	-3503 Apr 20 j 14:20	1° Υ 22'17	0°56'12
. ,.	2500.0 / 26:00.20	60 0 20157	0051112	max. Earth dist.	-3503 Apr 22 j 04:23	1° Y 44′02	6.15108 AU
conjunction	-3509 Oct 26 j 09:30	6° £ 29'57 6° £ 29'59	0°51'12 0°51'11	morning rise	-3503 May 04 j 09:11	4° Υ 30'44 23° Υ 17'21	
minimum elong morning rise	-3509 Oct 26 j 09:33 -3509 Nov 07 j 23:04	9° £ 29'39	0 31 11	retrograde opposition	-3503 Sep 07 j 22:59 -3503 Nov 06 j 08:10	18° Υ 14'48	0°-54'-30
retrograde	-3508 Mar 13 j 03:24	27° £ 57'01		min. Earth dist.	-3503 Nov 00 j 08:10	18° Υ 20'45	4.20688 AU
opposition	-3508 May 13 j 04:50	23° ⊆ 02'27	0°45'44	direct	-3502 Jan 04 j 23:32		4.20000 AC
min. Earth dist.	-3508 May 13 j 21:57	22° £ 56'57	4.16618 AU		-3502 May 04 j 07:45	0°8	
direct	-3508 Jul 12 j 23:12	18° ♀ 07'41		evening set	-3502 May 12 j 07:09	1° 8 45'28	
	-3508 Oct 15 j 10:00	0°M		C	, ,		
evening set	-3508 Nov 14 j 11:18	6°M46'47		conjunction	-3502 May 26 j 00:14	4° 8 48'41	0°-14'-54
				minimum elong	-3502 May 26 j 00:15	4° 8 48'41	0°14'50
conjunction	-3508 Nov 27 j 05:02	9°M46'17	0°07'55	behind sun begin	-3502 May 25 j 21:22	4° 8 47'05	
minimum elong	-3508 Nov 27 j 05:02	9°M46'17	0°07'50	behind sun end	-3502 May 26 j 03:08	4° 8 50'17	
behind sun begin	-3508 Nov 26 j 21:47	9° ™ 42'02		max. Earth dist.	-3502 May 26 j 17:18		6.26193 AU
behind sun end	-3508 Nov 27 j 12:17	9°M50'32		morning rise	-3502 Jun 08 j 15:42	7° 8 50'54	
max. Earth dist.	-3508 Nov 26 j 17:18	9°M39'23	6.11276 AU		-3502 Jul 12 j 05:23	15° 8	
morning rise	-3508 Dec 10 j 00:22	12°M46'52		asc. node	-3502 Oct 03 j 01:43		
desc. node	-3508 Dec 19 j 13:41 -3507 Jan 30 j 23:10	15°M 24°M02'09		retrograde opposition	-3502 Oct 09 j 20:27 -3502 Dec 08 j 10:12		0°11'06
desc. node	-3507 Jan 30 j 23:10 -3507 Mar 10 j 14:55	0° × 7		min. Earth dist.	-3502 Dec 08 j 06:48		4.31097 AU
retrograde	-3507 Apr 18 j 11:21	2° × 17'02		direct	-3501 Feb 07 j 07:45		4.510)/ 110
renograde	-3507 May 27 j 12:35	30°RM		direct	-3501 May 28 j 09:09	0°II	
opposition	-3507 Jun 18 j 07:40	27°M18'52	0°-25'-11	evening set	-3501 Jun 15 j 03:15	3° Ⅱ 48'44	
min. Earth dist.	-3507 Jun 18 j 06:36	27°M19'13	4.06588 AU	S	ý		
direct	-3507 Aug 16 j 16:35	22°M25'47		conjunction	-3501 Jun 28 j 13:32	6° Ⅱ 45'25	0°29'44
	-3507 Oct 27 j 10:13	0° ∡ ¹		minimum elong	-3501 Jun 28 j 13:29	6° Ⅱ 45'24	0°29'51
evening set	-3507 Dec 18 j 21:15	11° ∡ ¹28'52		max. Earth dist.	-3501 Jun 28 j 05:06	6° Ⅱ 40'47	6.35176 AU
				morning rise	-3501 Jul 11 j 20:52	9° Ⅱ 40′33	
conjunction	-3507 Dec 31 j 21:18	14° ∡ ³34'43	0°-39'-35	retrograde	-3501 Nov 09 j 20:33	26° Ⅲ 53′08	
minimum elong	-3507 Dec 31 j 21:15	14° ∡ ³34'41	0°39'44	opposition	-3500 Jan 08 j 17:43	21° ∏ 58′10	1°10'56
max. Earth dist.	-3506 Jan 01 j 10:58	14° ∡ 42′52	6.03105 AU	min. Earth dist.	-3500 Jan 09 j 06:41	21° I 53'56	4.38072 AU
morning rise	-3506 Jan 14 j 00:29	17° ∡ 742'17		direct	-3500 Mar 10 j 18:23	16° Ⅱ 54'46	
ratro a J-	-3506 Mar 11 j 12:44	0°る 7° ろ 54107		avanie+	-3500 Jun 23 j 17:20	0°©	
retrograde min. Earth dist.	-3506 May 25 j 18:37	7°る54'07 2°る58'22	4.01177 AU	evening set	-3500 Jul 16 j 11:08	4°949'43 7°924'51	6.39548 AU
opposition	-3506 Jul 24 j 09:01 -3506 Jul 25 j 04:01	2°る52'02	4.011// AU -1°-29'-26	max. Earth dist.	-3500 Jul 28 j 07:08	24'31 كوټ ر	0.37348 AU
оррозион	-3506 Aug 17 j 04:46		1 27-20	conjunction	-3500 Jul 29 j 12:12	7°540'47	1°04'42
direct	-3506 Sep 21 j 12:11			minimum elong	-3500 Jul 29 j 12:12	7°940'45	
						0 .5	

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3500 in astronomical counting style is the year 3501 BCE in historical counting style. -3500 Aug 11 j 09:58 10°530'13 min. Earth dist. -3494 Jul 29 j 07:02 7°る55'32 4.00946 AU morning rise -3500 Dec 09 j 15:53 27°529'42 opposition -3494 Jul 30 j 02:41 7°る48'57 -1°-35'-57 retrograde opposition -3499 Feb 08 j 00:24 22°537'19 1°49'50 -3494 Sep 26 j 08:50 2°る55'10 direct -3493 Jan 28 j 23:31 22°**♂**14'36 min. Earth dist. -3499 Feb 09 j 00:57 22°529'25 4.39733 AU evening set -3499 Apr 11 j 14:43 17°535'11 direct -3499 Jul 22 j 05:28 -3493 Feb 11 j 07:59 25°**⋜**25'01 -1°-15'-50 $0^{\circ}\Omega$ conjunction -3493 Feb 11 j 07:57 25°**る**25'00 5°**Ω**26'39 evening set -3499 Aug 16 j 18:40 minimum elong 1°15'57 max. Earth dist. -3499 Aug 27 j 19:53 7°**£**52′46 6.38247 AU max. Earth dist. -3493 Feb 12 j 22:32 25°₹47'57 6.00933 AU morning rise -3493 Feb 24 j 19:54 28° 37'09 conjunction -3499 Aug 29 j 11:46 8°**ん**14'49 1°21'15 -3493 Mar 02 j 16:54 0°≈ minimum elong -3499 Aug 29 j 11:45 8°**Ω**14'49 1°21'21 -3493 May 16 j 23:37 15°**≈** -3499 Sep 11 j 02:04 11°**Ω**01'45 -3493 Jul 06 j 16:17 morning rise retrograde 18°**≈**53'43 -3499 Sep 29 j 10:50 15°**Ω** -3493 Aug 26 j 16:41 15°R≈ retrograde -3498 Jan 10 j 04:42 $28^{\circ}\Omega$ 13'29 min. Earth dist. -3493 Sep 03 j 06:22 13°≈58'49 4.02896 AU opposition -3498 Mar 11 j 23:31 23°Ω22'02 1°58'21 opposition -3493 Sep 04 j 11:51 13°≈48'47 -2°00'-42 min. Earth dist. -3498 Mar 13 j 06:06 $23^{\circ}\Omega$ 12'19 4.35621 AU direct -3493 Nov 01 j 11:16 8°≈52'23 direct -3498 May 13 j 12:50 18°**Ω**22'11 -3492 Jan 03 j 20:29 15°≈ -3498 Aug 18 j 06:52 0° M evening set -3492 Mar 06 j 02:39 28°≈08'47 evening set -3498 Sep 16 j 18:29 6° Tp 21'20 -3492 Mar 14 j 01:29 0°**)**€ max. Earth dist. -3498 Sep 27 j 13:25 8° Mp 46'43 6.31559 AU conjunction -3492 Mar 19 j 17:58 1°**)** 19'47 -1°-17'-37 conjunction -3498 Sep 29 i 07:24 9° m 10'22 1°14'55 minimum elong -3492 Mar 19 i 18:00 1°**)** 19'49 1°17'42 minimum elong -3498 Sep 29 i 07:26 9° m 10'24 1°14'57 max. Earth dist. -3492 Mar 21 i 16:17 1°**)** 46′52 6.06176 AU -3498 Oct 11 j 19:06 11° m 58'56 morning rise -3492 Apr 02 i 11:27 4°**)**€31'45 morning rise retrograde -3497 Feb 12 j 04:15 29° mp 46'08 -3492 Aug 10 j 01:40 24° ¥ 10′23 retrograde opposition -3497 Apr 14 j 05:35 24° m 53'44 1°32'42 -3492 Oct 07 j 09:39 19° ¥ 14'43 4.10858 AU min. Earth dist. -3497 Apr 15 j 08:53 24° mp 45'02 4.26727 AU -3492 Oct 08 j 12:13 19° **★** 05'38 -1°-40'-1 min. Earth dist. opposition -3497 Jun 15 j 01:22 19° m 56'39 -3492 Dec 06 j 03:21 14° \(\) 05'56 direct direct -3497 Sep 10 j 10:13 -3491 Mar 29 j 05:06 $0^{\circ}\Upsilon$ 0∘ଫ 3°**Y**'02'48 -3497 Oct 18 j 05:54 8°**£**13'17 -3491 Apr 11 j 19:02 evening set evening set -3497 Oct 30 j 19:43 11°**2**06'52 0°46'01 -3491 Apr 25 j 13:47 6°Υ10'56 0°-51'-14 conjunction conjunction -3491 Apr 25 j 13:51 -3497 Oct 30 j 19:46 11°**Ω**06'54 0°46'00 6°Υ10'58 0°51'14 minimum elong minimum elong 6.16194 AU -3497 Oct 29 j 14:04 10°**Ω**49'46 -3491 Apr 27 j 02:31 6°**Ƴ**31'51 max. Earth dist. 6.21239 AU max. Earth dist. -3497 Nov 12 j 09:39 14°**♀**00'47 -3491 May 09 j 08:41 9°**Y**18′55 morning rise morning rise -3496 Feb 04 j 14:25 0°M -3491 Sep 12 j 10:55 27°**Y** 58'45 retrograde -3491 Nov 10 j 20:32 22°**Υ**'56'38 0°-45'-46 retrograde -3496 Mar 17 j 23:07 2°M40'22 opposition -3496 Apr 29 j 21:09 30°R € min. Earth dist. -3491 Nov 10 j 03:36 23°**Υ**'02'22 4.21841 AU opposition -3496 May 18 j 01:25 27°**£**45'22 0°36'38 direct -3490 Jan 09 j 14:26 17°**Υ**54'19 min. Earth dist. -3496 May 18 j 16:26 27°**♀**40'33 4.15598 AU -3490 Apr 17 j 05:09 0°8 direct -3496 Jul 17 j 15:34 22°**♀**50'56 -3490 May 17 j 02:31 6°**8**24'42 evening set -3496 Sep 26 j 06:49 0°M -3496 Nov 19 j 00:57 11°M31'41 -3490 May 30 j 18:55 9°**8**27'10 0°-8'-33 evening set conjunction -3490 May 30 j 18:56 9°**8**27'11 0°08'29 minimum elong -3496 Dec 01 j 19:12 14°M31'50 0°01'19 -3490 May 30 j 11:43 9°**8**23'11 conjunction behind sun begin -3496 Dec 01 j 19:13 14° ML 31'50 0°01'13 -3490 May 31 i 02:09 minimum elong behind sun end 9°**8**31'11 -3496 Dec 01 i 11:09 14° ML27'07 behind sun begin max. Earth dist. -3490 May 31 i 08:14 9°**8**34'34 6.27340 AU behind sun end -3496 Dec 02 i 03:16 14°MJ36'34 morning rise -3490 Jun 13 j 09:39 12°**8**28'35 max. Earth dist. -3496 Dec 01 j 09:18 14°M26'01 6.10340 AU -3490 Jun 24 j 22:18 15°8 -3496 Dec 03 j 18:57 15°M -3490 Aug 13 j 05:39 24°836'51 asc. node desc. node -3496 Dec 12 j 07:53 17° ML00'37 -3490 Oct 02 j 14:41 $\Pi^{\circ}0$ 0°**Ⅱ**13'21 -3496 Dec 14 j 15:33 17°M 33'15 -3490 Oct 14 j 06:39 morning rise retrograde -3495 Feb 10 j 22:19 -3490 Oct 25 j 20:15 30°R℃ 0°×7 retrograde -3495 Apr 23 j 10:24 7°**∡**'08'54 opposition -3490 Dec 12 j 20:07 25°815'04 0°20'14 opposition -3495 Jun 23 j 06:17 2°**₹**10'10 0°-34'-53 min. Earth dist. -3490 Dec 12 j 19:22 25°**8**15'19 4.32136 AU -3489 Feb 11 j 22:28 20°**8**11'29 min. Earth dist. -3495 Jun 23 j 02:55 2°**尽**11'16 4.05809 AU direct -3495 Jul 10 j 11:03 30°RML -3489 May 10 j 14:55 $0^{\circ}\Pi$ -3495 Aug 21 j 12:09 27°M17'03 -3489 Jun 19 j 17:41 8°**Ⅱ**18'44 direct evening set -3495 Oct 01 j 17:25 0°*x*7 -3495 Dec 23 j 15:44 16° ₹22'03 -3489 Jul 03 j 02:52 11°**II**14'36 0°35'27 evening set conjunction -3489 Jul 03 j 02:50 11°**Ⅱ**14'34 minimum elong 0°35'35 conjunction -3494 Jan 05 j 16:54 19°**х** 28'34 0°-45'-19 max. Earth dist. -3489 Jul 02 j 16:26 11°**I**I08'52 6.36013 AU minimum elong -3494 Jan 05 j 16:50 19° ₹28'32 0°45'27 morning rise -3489 Jul 16 j 08:50 14°**I**I08'49 max. Earth dist. -3494 Jan 06 j 10:38 19°**х** 39'09 6.02561 AU -3489 Oct 16 j 08:54 0ಂಣ morning rise -3494 Jan 18 j 20:58 22°**尽** 36'47 retrograde -3489 Nov 14 j 02:50 1°9518'03 -3494 Feb 20j 04:12 0°る -3489 Dec 12 j 20:40 30°R II -3494 May 30 j 20:08 12°**⋜**51'27 -3488 Jan 13 j 02:20 26° **II**23'26 1°17'54 retrograde opposition

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3488 in astronomical counting style is the year 3489 BCE in historical counting style. min. Earth dist. -3488 Jan 13 j 16:04 26°**Д**18'58 4.38661 AU retrograde -3483 Apr 28 j 16:00 12°**尽** 09'58 -3488 Mar 15 j 04:43 21°**Ⅲ**20'05 -3483 Jun 28 j 08:47 7°**∡**10'46 0°-44'-41 direct opposition -3488 Jun 05 j 15:34 min. Earth dist. -3483 Jun 28 j 03:44 7°**∡**12'26 4.04615 AU 0ಂತಾ -3483 Aug 26 j 10:46 -3488 Jul 20 j 21:26 9°9513'37 direct 2°**х** 17′44 evening set -3483 Dec 28 j 14:59 21°**尽** 26'18 evening set -3488 Aug 02 j 21:10 12°504'01 conjunction 1°08'16 -3488 Aug 02 j 21:07 12°503'59 minimum elong 1°08'23 conjunction -3482 Jan 10 j 17:01 24° ₹ 33'37 0°-50'-55 -3482 Jan 10 j 16:57 24°**尽** 33'35 -3488 Aug 01 j 14:24 11°5647'09 max. Earth dist. 6.39811 AU minimum elong 0°51'04 -3482 Jan 11 j 12:57 24°**尽** 45'31 morning rise -3488 Aug 15 j 17:41 14°952'50 max. Earth dist. 6.01731 AU -3488 Nov 09 j 02:10 $0^{\circ}\Omega$ morning rise -3482 Jan 23 j 22:24 27° ₹ 42'44 retrograde -3488 Dec 14 j 00:31 1°**£**52′01 -3482 Feb 02 j 15:36 0°ಕ -3482 Jun 05 j 00:12 18°**⋜**01'07 -3487 Jan 18 j 02:45 30° Rூ retrograde -3482 Aug 03 j 07:21 13°る05'45 4.00609 AU opposition -3487 Feb 12 j 09:59 26°**©**59'51 1°52'58 min. Earth dist. min. Earth dist. -3487 Feb 13 j 12:19 26°551'24 4.39636 AU opposition -3482 Aug 04 j 05:52 12°₹58'12 -1°-42'-3 direct -3487 Apr 16 j 01:56 21°957'57 direct -3482 Oct 01 j 08:28 8°**る**04'13 -3487 Jul 03 j 23:09 $0^{\circ}\Omega$ evening set -3481 Feb 03 j 03:51 27°₹25'14 evening set -3487 Aug 21 j 02:12 9°**Ω**49'18 -3481 Feb 14 j 00:50 max. Earth dist. -3487 Sep 01 j 00:36 $12^{\circ}\Omega$ 14'09 6.37752 AU conjunction -3481 Feb 16 j 13:28 0°≈36'03 -1°-17'-57 conjunction -3487 Sep 02 j 18:25 12°Ω37'18 1°21'46 minimum elong -3481 Feb 16 j 13:26 0°≈36'02 1°18'04 minimum elong $-3487 \text{ Sep } 02 \text{ j } 18:25 \quad 12^{\circ} \Omega 37'18$ 1°21'53 max. Earth dist. -3481 Feb 18 j 07:01 1°≈00'45 6.01126 AU -3487 Sep 13 i 12:18 15°Ω morning rise -3481 Mar 02 i 02:13 3°≈48'27 $-3487 \text{ Sep } 15 \text{ i } 08:09 \quad 15^{\circ} \Omega 24'10$ -3481 Apr 22 i 00:24 15°≈ morning rise -3487 Dec 03 i 13:27 retrograde -3481 Jul 11 j 19:10 24°≈02'33 0° m retrograde -3486 Jan 14 j 16:00 2°m 39'04 min. Earth dist. -3481 Sep 08 j 06:57 19°≈07'31 4.03624 AU -3486 Feb 26 j 10:42 30°RΩ -3481 Sep 09 j 12:15 18°≈57'31 -2°00'-27 opposition -3486 Mar 16 j 12:10 $27^{\circ}\Omega47'33$ $1^{\circ}56'48$ -3481 Oct 13 j 11:01 15°R≈ opposition -3486 Mar 17 j 18:38 $27^{\circ}\Omega 37'51$ -3481 Nov 06 j 13:35 14°≈00'45 min. Earth dist. 4.34750 AU direct -3486 May 17 j 23:28 22°**Ω**48'01 -3481 Nov 30 j 17:33 15°≈ direct -3486 Jul 30 j 10:51 0° Mp -3480 Feb 26 j 02:52 0°**∀** -3486 Sep 21 j 01:57 10° m/48'42 -3480 Mar 11 j 07:40 evening set evening set 3°**光**15′26 -3486 Oct 01 j 22:51 13° Mp 15'34 max. Earth dist. 6.30378 AU -3480 Mar 24 j 23:45 6°**¥**26'14 -1°-15'-25 conjunction -3486 Oct 03 j 14:49 13° m 38'10 1°12'09 -3480 Mar 24 j 23:48 6°**¥**26'16 1°15'29 conjunction minimum elong 6°**¥**53'51 6.07400 AU -3486 Oct 03 j 14:52 13° m 38'11 1°12'11 -3480 Mar 26 j 23:10 minimum elong max. Earth dist. -3486 Oct 16 j 02:23 16° M 27'11 -3480 Apr 07 j 17:45 9°**₭** 37'51 morning rise morning rise -3486 Dec 24 j 01:15 0°**♀** -3480 Aug 14 j 20:42 29° **米** 08'34 retrograde retrograde -3485 Feb 16 j 21:02 4°**♀**20'35 min. Earth dist. -3480 Oct 12 j 04:07 24° ¥ 13'16 4.12469 AU -3485 Apr 14 j 17:52 30°R M opposition -3480 Oct 13 j 07:02 24° **★** 04'04 -1°-33'-57 opposition -3485 Apr 18 j 22:51 29° m 27'57 1°26'30 direct -3480 Dec 11 j 00:28 19°**₭**04'00 min. Earth dist. -3485 Apr 20 j 01:29 29° m 19'29 4.25294 AU -3479 Mar 11 j 04:58 $0^{\circ}\Upsilon$ -3485 Jun 19 j 15:25 24° M 31'18 -3479 Apr 16 j 19:55 7°**Υ**56'25 direct evening set -3485 Aug 20 j 18:23 -3485 Oct 22 j 16:41 12° **2** 50'59 -3479 Apr 30 j 14:30 11°**Y**03'41 0°-45'-54 evening set conjunction -3485 Nov 03 j 01:47 15°**£**28'36 -3479 Apr 30 j 14:34 11°**Y**03'43 0°45'54 max. Earth dist. minimum elong $-3479 \text{ May } 01 \text{ j } 23:59 \quad 11^{\circ} \Upsilon^{\circ} 22'42$ max. Earth dist. 6.18069 AU -3485 Nov 04 i 06:47 15° **2**45'23 0°40'31 -3479 May 14 j 09:10 14° Υ 10'44 conjunction morning rise minimum elong -3485 Nov 04 i 06:50 15°**△**45'25 0°40'30 -3479 Aug 06 i 10:44 0°8 morning rise -3485 Nov 16 j 21:34 18°**2**40'18 retrograde -3479 Sep 16 j 23:05 2°840'58 -3484 Jan 09 j 09:10 -3479 Oct 28 i 07:07 30° R**Y** o°M. -3484 Mar 22 j 21:42 -3479 Nov 15 j 09:14 27°**Υ**'39'16 0°-36'-48 retrograde 7°M-27'57 opposition -3484 May 22 j 23:46 2°M32'29 0°27'08 min. Earth dist. -3479 Nov 14 j 18:43 27°**Y**44'11 4.23784 AU opposition min. Earth dist. -3484 May 23 j 12:22 2°M28'25 4.14004 AU direct -3478 Jan 14 j 08:50 22°**Y**36'40 -3484 Jun 12 j 18:27 30°R ₽ -3478 Mar 28 j 17:42 0°8 direct -3484 Jul 22 j 09:20 27°**2**38'18 evening set -3478 May 21 j 20:29 11°**8**01'48 -3484 Aug 30 j 08:38 0°M -3478 Jun 04 j 12:11 14°**8**03'09 0°-2'-16 desc. node -3484 Oct 22 j 11:29 9°M06'09 conjunction -3484 Nov 17 j 19:07 15°M -3478 Jun 04 j 12:11 14°**8**03'09 0°02'13 minimum elong -3484 Nov 23 j 17:17 16°M23'03 -3478 Jun 04 j 03:53 13°**8**58'34 evening set behind sun begin -3478 Jun 04 j 20:29 14°**8**07'44 behind sun end -3484 Dec 06 j 12:34 19°M24'16 0°-5'-31 -3478 Jun 04 j 23:35 14°**8**09'27 6.29209 AU conjunction max. Earth dist. minimum elong -3484 Dec 06 j 12:34 19°M24'16 0°05'38 -3478 Jun 08 j 18:41 15°**8** behind sun begin -3484 Dec 06 j 04:49 19°M19'42 morning rise -3478 Jun 18 j 01:39 17°**8**03'16 behind sun end -3484 Dec 06 j 20:19 19°M28'50 asc. node -3478 Jun 24 j 01:38 18°**8**22'10 max. Earth dist. -3484 Dec 06 j 07:14 19°M21'09 6.08873 AU -3478 Aug 23 j 08:38 Π °0 -3484 Dec 19 j 09:49 22°M26'46 -3478 Oct 18 j 11:36 4°**Ⅱ**40′05 morning rise retrograde -3483 Jan 21 j 19:35 0° **尽** -3478 Dec 14 j 22:19 30°R8

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3478 in astronomical counting style is the year 3479 BCE in historical counting style. -3478 Dec 17 j 03:37 29°842'19 0°28'58 direct -3472 Jul 27 j 04:32 2°M28'26 opposition -3478 Dec 17 j 04:12 29°842'08 4.33781 AU -3472 Sep 01 j 17:43 4°MJ34'41 min. Earth dist. desc. node -3477 Feb 16 j 09:16 24°838'41 -3472 Oct 31 j 20:32 15°M direct -3472 Nov 28 j 11:52 21°ML19'00 -3477 Apr 19 j 19:52 Π $^{\circ}0$ evening set -3477 Jun 24 j 04:52 12°**Ⅱ**41'43 evening set conjunction -3472 Dec 11 j 08:01 24° M21'26 0°-12'-16 -3472 Dec 11 j 07:59 24°M21'25 conjunction -3477 Jul 07 j 12:34 15°**Ⅲ**36'28 0°40'46 minimum elong 0°12'22 -3477 Jul 07 j 12:31 15°**Ⅲ**36'27 minimum elong 0°40'54 behind sun begin -3472 Dec 11 j 02:35 24°ML18'14 max. Earth dist. -3477 Jul 06 j 21:27 15°**Ⅲ**28'12 6.37292 AU behind sun end -3472 Dec 11 j 13:24 24°ML24'37 morning rise -3477 Jul 20 j 17:15 18°**Ⅲ**29'37 max. Earth dist. -3472 Dec 11 j 05:16 24°ML19'49 6.07012 AU -3477 Sep 17 j 01:47 0ಂತಾ morning rise -3472 Dec 24 j 06:36 27° M25'17 -3471 Jan 04 j 07:24 retrograde -3477 Nov 18 j 07:26 5°934'34 0°**∡**¹ opposition -3476 Jan 17 j 07:45 0°9540'21 1°24'08 retrograde -3471 May 03 j 21:33 17°**尽** 17'11 min. Earth dist. -3476 Jan 18 j 00:47 0°**©**34'49 4.39489 AU opposition -3471 Jul 03 j 13:24 12°**尽** 17'23 0°-54'-16 -3476 Jan 22 j 12:06 30°RⅡ min. Earth dist. -3471 Jul 03 j 04:21 12°**尽**20'22 4.03200 AU direct -3476 Mar 19 j 14:24 25°**Ⅱ**37'03 direct -3471 Aug 31 j 09:50 7°**х** 24′21 -3476 May 15 j 01:39 0ಂತಾ evening set -3470 Jan 02 j 17:31 26° **₹** 37'12 evening set -3476 Jul 25 j 03:12 13°528'28 max. Earth dist. -3476 Aug 05 j 16:34 16°500'01 6.40092 AU conjunction -3470 Jan 15 j 20:45 29° **₹** 45'23 0°-56'-12 minimum elong -3470 Jan 15 j 20:42 29° ₹ 45'21 0°56'21 conjunction -3476 Aug 07 j 01:50 16°5018'15 1°11'18 -3470 Jan 16 j 21:11 0°궁 minimum elong -3476 Aug 07 i 01:48 16°5518'14 1°11'25 max. Earth dist. -3470 Jan 16 j 21:54 0°**ට**00'26 6.00888 AU morning rise -3476 Aug 19 j 21:08 19°506'29 morning rise -3470 Jan 29 i 03:10 2°る55'20 -3476 Oct 13 i 13:17 $0^{\circ}\Omega$ retrograde -3470 Jun 10 j 08:17 23°る16'43 retrograde -3476 Dec 18 j 03:55 6°Ω05'47 min. Earth dist. -3470 Aug 08 j 11:28 18°る21'21 4.00438 AU -3475 Feb 16 j 16:02 1°Ω13'45 1°55'22 opposition -3470 Aug 09 j 11:24 18°る13'18 -1°-47'-23 opposition -3475 Feb 17 j 19:17 1°**Ω**05'01 4.39368 AU -3470 Oct 06 j 13:28 13°る18'59 min. Earth dist. direct -3475 Feb 26 j 08:39 30°Rூ -3469 Jan 28 j 00:25 0°≈ -3475 Apr 20 j 07:32 26°512'03 -3469 Feb 08 j 10:45 direct 2°≈40'32 evening set $-3475 \text{ Jun } 11 \text{ j } 15:52 \quad 0^{\circ} \Omega$ -3475 Aug 25 j 06:06 14°**Ω**03'59 -3469 Feb 21 j 21:25 5°≈51'34 -1°-19'-27 conjunction evening set -3475 Aug 29 j 11:41 15°**Ω** minimum elong -3469 Feb 21 j 21:24 5°≈51'34 1°19'34 max. Earth dist. -3475 Sep 05 j 02:55 16° Ω 28'17 6.36940 AU max. Earth dist. -3469 Feb 23 j 18:08 6°≈18'05 6.01606 AU -3469 Mar 07 j 11:08 morning rise 9°≈04'08 -3475 Sep 06 j 21:35 $16^{\circ}\Omega$ 51'59 1° 21'50 -3469 Apr 02 j 08:10 15°≈ conjunction -3469 Jul 16 j 21:34 29°≈13'43 -3475 Sep 06 j 21:35 16° Ω51'59 minimum elong 1°21'55 retrograde -3475 Sep 19 j 10:42 19° **Ω**38'56 -3469 Sep 13 j 07:02 24°≈18'58 4.04693 AU morning rise min. Earth dist. -3475 Nov 09 j 04:12 0° m opposition -3469 Sep 14 j 13:37 24°≈08'33 -1°-59'-12 retrograde -3474 Jan 19 j 01:47 6° m 58'15 direct -3469 Nov 11 j 15:33 19°≈11'17 -3474 Mar 20 j 22:07 2° m 06'43 1°54'41 -3468 Feb 07 j 17:32 0°**)**€ opposition min. Earth dist. -3474 Mar 22 j 06:03 1° Mp 56'33 4.33428 AU -3468 Mar 16 j 13:42 8°¥22'52 evening set -3474 Apr 07 j 01:37 30°RΩ direct -3474 May 22 j 08:43 27°**Ω**07'29 -3468 Mar 30 j 06:15 11° **★** 33'13 -1°-12'-37 conjunction -3474 Jul 06 j 01:08 0° Mp -3468 Mar 30 j 06:18 11° **★** 33'15 1°12'40 minimum elong -3474 Sep 25 j 07:27 15° Mp 11'22 -3468 Apr 01 j 03:48 11° **€** 59'39 6.08914 AU evening set max. Earth dist. -3474 Oct 06 i 03:12 17° m 38'13 6.28644 AU max. Earth dist. morning rise -3468 Apr 13 j 00:41 14° \(\frac{1}{2}\)44'16 -3468 Jun 28 j 15:31 conjunction -3474 Oct 07 j 20:15 18° m 01'30 1°09'03 retrograde -3468 Aug 19 i 15:15 4°Υ06'01 -3474 Oct 07 j 20:18 18° m 01'32 1°09'04 -3468 Oct 10 j 22:03 30°R € minimum elong -3474 Oct 20 j 08:10 20° m 51'22 min. Earth dist. -3468 Oct 17 j 00:30 29° ¥ 10'23 4.14225 AU morning rise -3474 Dec 02 j 07:58 -3468 Oct 18 j 01:47 29° **★** 01'45 -1°-27'-11 0∘⊽ opposition -3473 Feb 21 j 12:46 direct -3468 Dec 15 j 23:48 24° \(\) 01'13 retrograde 8° £ 53'00 -3467 Feb 17 j 22:26 $0^{\circ}\Upsilon$ opposition -3473 Apr 23 j 15:09 4°**Ω**00'01 1°19'55 min. Earth dist. -3473 Apr 24 j 16:11 3°**♀**52'02 4.23253 AU evening set -3467 Apr 21 j 20:46 12°**Y**48'56 -3473 May 30 j 08:45 30°R TQ -3467 May 05 j 15:24 15°**Υ**55'24 0°-40'-14 direct -3473 Jun 24 j 02:56 29° m 03'41 conjunction -3473 Jul 18 j 20:03 0∘ಹ minimum elong $-3467 \text{ May } 05 \text{ j } 15:27 \quad 15^{\circ} \Upsilon 55'25$ 0°40'12 -3473 Oct 27 j 03:13 17°**£**28'36 -3467 May 06 j 23:24 16°**Υ**13'29 6.19931 AU evening set max. Earth dist. -3467 May 19 j 09:28 19°**Υ**01'24 morning rise -3473 Nov 08 j 18:05 20°**£**24'12 0°34'48 -3467 Jul 11 j 08:10 conjunction 0°8 -3467 Sep 21 j 10:54 minimum elong -3473 Nov 08 j 18:07 20°**£**24'13 0°34'45 retrograde 7°**8**22'26 max. Earth dist. -3473 Nov 07 j 16:39 20°**£**09'24 6.17521 AU opposition -3467 Nov 19 j 21:51 2°**8**21'18 0°-27'-33 morning rise -3473 Nov 21 j 09:33 23°**£**20'22 min. Earth dist. -3467 Nov 19 j 09:01 2°**8**25'38 4.25568 AU -3473 Dec 21 j 04:05 0°M -3467 Dec 08 j 03:24 30°R**Y** retrograde -3472 Mar 27 j 23:41 12°ML18'15 direct -3466 Jan 19 j 01:08 27°**Υ**18'32 -3472 May 27 j 23:25 7°**ጤ**22'21 -3466 Mar 02 j 11:13 opposition 0°17'25 0°8 -3472 May 28 j 10:29 7°ML18'47 4.11900 AU -3466 May 03 j 15:46 10°**8**43'06 min. Earth dist. asc. node

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, page 39 Attention, astronomical year style is used: The year -3466 in astronomical counting style is the year 3467 BCE in historical counting style.

Attention, astronom	ical year style is used: T	he year -3466	in astronomical co	ounting style is the year	r 3467 BCE in historical of	counting style	
	-3466 May 23 j 15:06	15° 8			-3461 Dec 03 j 23:09	0° M	
evening set	-3466 May 26 j 14:58	15° 8 39'23			-3460 Feb 23 j 04:33		
				retrograde	-3460 Apr 02 j 02:10		
conjunction	-3466 Jun 09 j 05:37		0°04'13		-3460 May 11 j 07:46		
minimum elong	-3466 Jun 09 j 05:36		0°04'19	opposition	-3460 Jun 02 j 01:50		
behind sun begin	-3466 Jun 08 j 21:28			min. Earth dist.	-3460 Jun 02 j 08:58		4.10445 AU
behind sun end	-3466 Jun 09 j 13:43			desc. node	-3460 Jul 12 j 05:30	8°ML04'57	
max. Earth dist.	-3466 Jun 09 j 11:36		6.30771 AU	direct	-3460 Aug 01 j 00:59	7°M26'54	
morning rise	-3466 Jun 22 j 18:09				-3460 Oct 12 j 05:11		
	-3466 Aug 01 j 19:10			evening set	-3460 Dec 03 j 08:32	26°M20'52	
retrograde	-3466 Oct 22 j 20:02	9° Ⅱ 09'13					
opposition	-3466 Dec 21 j 12:46			conjunction	-3460 Dec 16 j 05:39		0°-19'-3
min. Earth dist.	-3466 Dec 21 j 16:33	4° Ⅱ 10'46	4.35018 AU	minimum elong	-3460 Dec 16 j 05:37		0°19'10
	-3465 Jan 28 j 08:38			max. Earth dist.	-3460 Dec 16 j 08:03		6.05921 AU
direct	-3465 Feb 20 j 23:24				-3460 Dec 18 j 17:52	0° ∡ ¹	
	-3465 Mar 16 j 20:24			morning rise	-3460 Dec 29 j 05:11	2° × ⁷ 28'58	
evening set	-3465 Jun 28 j 17:26			retrograde	-3459 May 09 j 04:41		
max. Earth dist.	-3465 Jul 11 j 06:52	19° ⊥ 53'17	6.38108 AU	opposition	-3459 Jul 08 j 18:26		-1°-3'-29
				min. Earth dist.	-3459 Jul 08 j 07:24		4.02595 AU
conjunction	-3465 Jul 12 j 00:01		0°46'00	direct	-3459 Sep 05 j 12:17		
minimum elong	-3465 Jul 11 j 23:58		0°46'07		-3459 Dec 31 j 06:19	0°る	
morning rise	-3465 Jul 25 j 03:11			evening set	-3458 Jan 07 j 19:27	1° る 47'03	
	-3465 Aug 28 j 01:06	0₀æ			2450 X 20:22 20	40755141	10.11.0
retrograde	-3465 Nov 22 j 12:59		1020110	conjunction	-3458 Jan 20 j 23:39		-1°-1'-2
opposition	-3464 Jan 21 j 15:55	5°903'39	1°30'10	minimum elong	-3458 Jan 20 j 23:35	4°る55'39	
min. Earth dist.	-3464 Jan 22 j 10:10	4°957'44	4.39862 AU	max. Earth dist.	-3458 Jan 22 j 04:42	5°る13'03	6.00807 AU
direct	-3464 Mar 23 j 23:48	0°500'34		morning rise	-3458 Feb 03 j 07:08	8°ろ06'06	
evening set	-3464 Jul 29 j 12:22		C 20077 ATT	retrograde	-3458 Jun 15 j 12:17		10 511 44
max. Earth dist.	-3464 Aug 09 j 21:20	20°920'49	6.39977 AU	opposition	-3458 Aug 14 j 14:10		-1°-51'-44
	2464 4 11:00 40	2006/10146	1014105	min. Earth dist.	-3458 Aug 13 j 12:05		4.00928 AU
conjunction	-3464 Aug 11 j 09:40		1°14'05	direct	-3458 Oct 11 j 14:43		
minimum elong	-3464 Aug 11 j 09:37		1°14'12		-3457 Jan 10 j 04:17	0°≈ 7°≈ • 49!27	
morning rise	-3464 Aug 24 j 03:59			evening set	-3457 Feb 13 j 14:48	7° ≈ 48'37	
	-3464 Sep 24 j 03:19	0° Ω		:	2457 E-L 27 : 02.12	1000 050122	19 201 17
retrograde	-3464 Dec 22 j 14:10		1°57'17	conjunction minimum elong	-3457 Feb 27 j 02:13		-1°-20'-17 1°20'24
opposition min. Earth dist.	-3463 Feb 21 j 02:30		4.38789 AU	max. Earth dist.	-3457 Feb 27 j 02:12 -3457 Feb 28 j 23:09		6.02578 AU
direct	-3463 Feb 22 j 08:00 -3463 Apr 24 j 19:29		4.36769 AU				6.02378 AU
direct	-3463 Apr 24 j 19.29 -3463 Aug 13 j 12:06			morning rise	-3457 Mar 12 j 16:45 -3457 Mar 16 j 02:57		
evening set	-3463 Aug 29 j 13:59				-3457 May 29 j 15:59	0° ∺	
max. Earth dist.	-3463 Sep 09 j 09:33		6.35928 AU	retrograde	-3457 Jul 21 j 18:56	4° ∺ 15′26	
max. Earm dist.	-3403 Sep 09 J 09.33	20 663341	0.33926 AU	retrograde	-3457 Sep 13 j 08:03	4 /(13 20 30°R≈	
conjunction	-3463 Sep 11 j 04:56	210 0 17:50	1°21'26	min. Earth dist.	-3457 Sep 18 j 04:32	•	4.06033 AU
minimum elong	-3463 Sep 11 j 04:57		1°21'31	opposition	-3457 Sep 18 j 04.32		-1°-57'-5
morning rise	-3463 Sep 23 j 17:35		1 21 31	direct	-3457 Nov 16 j 15:11		-1 -3/-3
morning risc	-3463 Oct 21 j 06:10	0° m)		direct	-3456 Jan 17 j 10:25	0° ₩	
retrograde	-3462 Jan 23 j 14:47			evening set	-3456 Mar 21 j 15:19		
opposition	-3462 Mar 25 j 13:12	6° My 37'57	1°51'49	evening set	-5450 Wai 21 j 15.19	13 /(2010	
min. Earth dist.	-3462 Mar 26 j 19:57	6° Mp 28'10	4.32061 AU	conjunction	-3456 Apr 04 j 08:34	16° ∺ 30'05	-1°-9'-23
direct	-3462 May 26 j 20:23	1° m ₂ 39'09	4.32001 AC	minimum elong	-3456 Apr 04 j 08:38	16° ∺ 30'07	1°09'26
evening set	-3462 Sep 29 j 17:14			max. Earth dist.	-3456 Apr 06 j 06:02		6.10512 AU
max. Earth dist.	-3462 Oct 10 j 15:11		6.27048 AU	morning rise	-3456 Apr 18 j 03:06	19°) 40'28	0.10312 AC
max. Lattii dist.	-3402 Oct 10 j 13.11	22 111/17-70	0.27040 AC	morning risc	-3456 Jun 05 j 05:15	0° Υ	
conjunction	-3462 Oct 12 j 06:05	22° Mp 36'57	1°05'23	retrograde	-3456 Aug 24 j 06:26	8°Υ'53'20	
minimum elong	-3462 Oct 12 j 06:08	22° m/36'59	1°05'25	opposition	-3456 Oct 22 j 16:28	3° Υ 49'24	-1°-20'-5
morning rise	-3462 Oct 24 j 18:12		1 03 23	min. Earth dist.	-3456 Oct 21 j 16:53	3°Υ57'26	4.15898 AU
morning Hac	-3462 Nov 14 j 04:43	0° ರ		mm. Latui uist.	-3456 Nov 23 j 20:49	3 13/20 30°R ∺	7.13070 AU
retrograde	-3461 Feb 26 j 10:53			direct	-3456 Dec 20 j 17:59	28° ∺ 48'30	
opposition	-3461 Apr 28 j 12:24	8° £ 43'54	1°12'29	ancet	-3455 Jan 16 j 23:01	28 Λ 48 30	
min. Earth dist.	-3461 Apr 29 j 12:39	8° £ 36'10	4.21531 AU	evening set	-3455 Apr 26 j 17:31	0 ¶ 17° Υ 31'59	
direct	-3461 Jun 28 j 21:14		-1.21331 AU	evening set	-5-т55 гарт 20 ј 17.31	17 13139	
				conjunction	2455 Mov. 10: 11:47	20° Ƴ 37'39	0°-34'-29
evening set max. Earth dist.	-3461 Oct 31 j 17:47 -3461 Nov 12 j 09:51		6.15850 AU	conjunction minimum elong	-3455 May 10 j 11:47 -3455 May 10 j 11:50		0°-34'-29 0°34'27
max. Darui Uist.	9701 NOV 12 J 09.31	∠¬ ==∪7 47	0.12020 AU	max. Earth dist.	-3455 May 10 j 11:50	20 γ 57 41 20° γ 52'58	6.21541 AU
conjunction	-3461 Nov 13 j 09:11	25° Ω 13'25	0°28'38	morning rise	-3455 May 24 j 05:34		0.21341 AU
minimum elong	-3461 Nov 13 j 09:11		0°28'34	morning 1150	-3455 Jun 22 j 06:09	0° 8	
morning rise	-3461 Nov 13 j 09:13 -3461 Nov 26 j 01:37		0 40 34	retrograde	-3455 Sep 25 j 19:36		
morning 1150	5701 NOV 20 J 01.5/	20 == 1043		icuogiauc	-этээ вср 23 ј 17.30	11 05003	

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, Attention, astronomical year style is used: The year -3455 in astronomical counting style is the year 3456 BCE in historical counting style. -3455 Nov 24 i 07:36 6°**8**55'25 0°-18'-26 conjunction -3449 Nov 18 i 00:20 0°ML01'50 0°22'16 opposition min. Earth dist. -3455 Nov 23 j 21:18 6°858'53 4.26975 AU -3449 Nov 18 j 00:22 0°ML01'51 0°22'12 minimum elong -3454 Jan 23 j 15:39 1°852'23 -3449 Nov 30 j 17:34 3°ML00'04 direct morning rise -3454 Mar 14 j 08:29 5°**8**28'49 -3448 Jan 26 j 03:37 15°M asc node -3454 May 07 j 03:02 15°**8** -3448 Apr 07 j 05:37 22° ML 13'23 retrograde -3448 May 22 j 04:28 19° M 16'53 -3454 May 31 j 06:20 20°**8**10'15 evening set desc. node -3448 Jun 07 j 03:41 17°M16'26 opposition 0°-2'-53 conjunction -3454 Jun 13 j 20:13 23°**8**09'45 0°10'23 -3448 Jun 07 j 08:58 17°ML14'43 4.09314 AU min. Earth dist. -3454 Jun 13 j 20:13 23°**8**09'45 0°10'29 -3448 Jun 25 j 09:36 15°RM minimum elong -3454 Jun 13 j 13:51 23°**8**06'15 behind sun begin direct -3448 Aug 05 j 23:28 12°M22'59 behind sun end -3454 Jun 14 j 02:35 23°**8**13'15 -3448 Sep 15 j 16:56 15°M₊ -3454 Jun 13 j 23:32 23°**8**11'34 -3448 Dec 02 j 13:36 max. Earth dist. 6.31889 AU 0°⊀ -3454 Jun 27 j 07:31 26°**8**07'52 -3448 Dec 08 j 04:26 morning rise evening set 1°**∡**19'22 -3454 Jul 15 j 05:59 $\Pi^{\circ}0$ retrograde -3454 Oct 27 j 02:15 13°**Д**33'41 conjunction -3448 Dec 21 j 02:25 4°**∡**°23′26 0°-25'-40 opposition -3454 Dec 25 j 20:10 8°**耳**37′03 0°46'00 minimum elong -3448 Dec 21 j 02:23 4°**∡**°23′24 0°25'48 8°**Ⅱ**35′07 min. Earth dist. -3454 Dec 26 j 02:03 4.35779 AU max. Earth dist. -3448 Dec 21 j 08:28 4°**х** 27′01 6.05084 AU 7°**х** 29′02 direct -3453 Feb 25 j 09:59 3°**Ⅱ**33'24 morning rise -3447 Jan 03 j 03:02 evening set -3453 Jul 03 j 04:46 21°**Д**32'39 retrograde -3447 May 14 j 08:11 27° ₹30'56 opposition -3447 Jul 13 j 21:15 22° ₹30'04 -1°-12'-9 conjunction -3453 Jul 16 j 09:59 24°**II**25'54 0°50'53 min. Earth dist. -3447 Jul 13 j 07:22 22° ₹34'40 4.02163 AU minimum elong -3453 Jul 16 j 09:56 24°**II**25'53 0°50'59 direct -3447 Sep 10 j 11:18 17° ₹36'56 max. Earth dist. -3453 Jul 15 j 12:18 24°**Ⅱ**14'02 6.38445 AU -3447 Dec 14 i 00:04 0°정 morning rise -3453 Jul 29 i 12:04 27°**Ⅱ**17'32 evening set -3446 Jan 12 j 20:20 6°る52'12 -3453 Aug 11 j 01:44 0°ഇ -3453 Nov 26 j 20:52 14°519'11 -3446 Jan 26 j 01:24 10°る01'14 -1°-5'-21 retrograde conjunction -3452 Jan 26 j 00:15 9°525'47 1°35'38 minimum elong -3446 Jan 26 j 01:21 10°る01'12 1°05'29 opposition -3452 Jan 26 j 20:57 9°519'04 4.39791 AU max. Earth dist. -3446 Jan 27 j 08:14 10°る19'39 6.00789 AU min. Earth dist. -3446 Feb 08 j 09:56 13°**⋜**12'04 direct -3452 Mar 28 j 10:44 4°\$22'50 morning rise -3446 May 03 j 05:20 evening set -3452 Aug 02 j 21:02 22°514'18 0°≈ -3452 Aug 14 j 04:54 24°543'17 -3446 Jun 20 j 14:04 3°≈32'46 max. Earth dist. 6.39499 AU retrograde -3446 Aug 08 j 04:05 30°R♂ -3452 Aug 15 j 17:28 25°503'24 1°16'25 -3446 Aug 18 j 11:42 28° 37'44 4.01340 AU conjunction min. Earth dist. -3452 Aug 15 j 17:26 25°503'23 1°16'32 -3446 Aug 19 j 14:43 28°₹28'36 -1°-55'-13 minimum elong opposition -3452 Aug 28 j 10:40 27°551'01 -3446 Oct 16 j 15:18 23°**궁**33'33 morning rise direct $-3452 \text{ Sep } 07 \text{ j } 08:27 \quad 0^{\circ} \Omega$ -3446 Dec 20 j 12:53 0°**≈** $-3452 \,\mathrm{Dec}\ 26\,\mathrm{j}\ 23:14\ 14^{\circ}\Omega 54'32$ -3445 Feb 18 j 17:32 12°≈52'40 retrograde evening set opposition -3451 Feb 25 j 13:59 10°**Ω**02'53 1°58'31 -3445 Feb 27 j 18:02 15°≈ min. Earth dist. -3451 Feb 26 j 19:06 9°**Ω**53'35 4.37961 AU direct -3451 Apr 29 j 05:32 5°**Ω**01'52 conjunction -3445 Mar 04 j 06:03 16°≈03'41 -1°-20'-34 -3451 Jul 27 j 03:38 15°**Ω** minimum elong -3445 Mar 04 j 06:03 16°≈03'41 1°20'39 -3451 Sep 02 j 22:41 22°**Ω**57'08 max. Earth dist. -3445 Mar 06 j 05:04 16°≈31'24 evening set 6.03381 AU max. Earth dist. -3451 Sep 13 j 17:23 25°**Ω**21'08 6.34814 AU -3445 Mar 17 j 21:13 19°≈16'00 morning rise -3445 May 05 j 22:07 0°**∀** -3451 Sep 15 j 12:57 25° Ω 45'28 1°20'33 -3445 Jul 26 j 16:41 9°**)** 14′08 conjunction retrograde -3451 Sep 15 j 12:58 $25^{\circ}\Omega 45'29$ -3445 Sep 23 i 01:19 4°**¥**18'55 4.07138 AU minimum elong 1°20'36 min. Earth dist. $-3451 \text{ Sep } 28 \text{ i } 01:19 \quad 28^{\circ} \Omega 32'58$ 4°**)** € 08'56 -1°-54'-11 morning rise opposition -3445 Sep 24 i 06:32 -3451 Oct 04 i 14:47 0° m -3445 Oct 30 i 13:24 30°R≈ -3450 Jan 28 i 07:27 16° m 02'58 retrograde direct -3445 Nov 21 j 12:48 29°≈10'44 opposition -3450 Mar 30 i 05:40 11° mb 11'14 1° 48'11 -3445 Dec 13 i 15:59 0°**₩** 4.30724 AU min. Earth dist. -3450 Mar 31 j 12:34 11° m 01'25 -3444 Mar 26 j 16:40 18° **€** 15'59 evening set direct -3450 May 31 j 11:35 6° m 12'51 -3450 Oct 04 j 03:49 24° m 22'27 conjunction -3444 Apr 09 j 10:15 21°¥25'31 -1°-5'-42 evening set -3450 Oct 15 j 03:46 26° m 52'44 6.25611 AU -3444 Apr 09 j 10:19 21° **∺**25'33 1°05'44 max. Earth dist. minimum elong -3444 Apr 11 j 04:47 21°**米**50′00 6.11811 AU max. Earth dist. conjunction -3450 Oct 16 j 16:51 27° m 13'55 1°01'17 morning rise -3444 Apr 23 j 05:11 24°**)** € 35'28 -3450 Oct 16 j 16:54 27° m 13'57 minimum elong 1°01'17 -3444 May 17 j 11:18 $0^{\circ}\Upsilon$ -3444 Aug 28 j 20:11 13° Υ 40'42 -3450 Oct 28 j 19:56 0∘ଫ retrograde 8°**Ƴ**44'43 4.17256 AU -3450 Oct 29 j 05:18 0°**2**05'19 -3444 Oct 26 j 08:36 morning rise min. Earth dist. -3449 Mar 03 j 07:09 18°**£**21'54 -3444 Oct 27 j 06:54 8°**Y**'37'07 -1°-12'-30 retrograde opposition -3449 May 03 j 10:01 13°**≏**28'18 3°**Y**35′50 opposition 1°04'30 direct -3444 Dec 25 j 11:52 -3443 May 01 j 14:50 22°**Y**16'27 min. Earth dist. -3449 May 04 j 07:07 13°**2**21'34 4.20086 AU evening set direct -3449 Jul 03 j 13:31 8°**♀**32'49 evening set -3449 Nov 05 j 08:21 27°**♀**04'27 conjunction $-3443 \text{ May } 15 \text{ j } 08:58 \quad 25^{\circ} \Upsilon 21'28$ 0°-28'-29 max. Earth dist. -3449 Nov 17 j 04:50 29°**⊆**50'25 6.14522 AU minimum elong $-3443 \text{ May } 15 \text{ j } 09:00 \quad 25^{\circ} \Upsilon 21'30$ 0°28'27 -3449 Nov 17 j 21:12 0°M max. Earth dist. -3443 May 16 j 09:26 25°**Y**35'13 6.22872 AU morning rise -3443 May 29 j 02:04 28°**Y**25'48

Planetary Phenomena of Jupiter from -3900 through -3400 (UT), Astrodienst AG 7-Dez-2017 14:37, page 41 Attention, astronomical year style is used: The year -3443 in astronomical counting style is the year 3444 BCE in historical counting style.

Attention, astronom	nical year style is used: Tl	he year -3443	in astronomical co	ounting style is the year	3444 BCE in historical	counting style	-
	-3443 Jun 05 j 04:08	9° 8			-3437 Nov 02 j 02:03	0° M.	
	-3443 Aug 30 j 04:25	15° 8		evening set	-3437 Nov 09 j 21:24	1° M 48'16	
retrograde	-3443 Sep 30 j 06:51	16° 8 32'16					
	-3443 Oct 31 j 03:12	15° ₹ 8		conjunction	-3437 Nov 22 j 14:04	4°M46'21	0°15'52
opposition	-3443 Nov 28 j 18:11	11° 8 32'14	0°-9'-9	minimum elong	-3437 Nov 22 j 14:05	4°M46'22	0°15'49
min. Earth dist.	-3443 Nov 28 j 10:32	11° 8 34'48	4.28151 AU	behind sun begin	-3437 Nov 22 j 12:07	4°ML45'13	
asc. node	-3442 Jan 22 j 06:53	6° 8 32'30		behind sun end	-3437 Nov 22 j 16:04	4° ጤ 47'31	
direct	-3442 Jan 28 j 06:55	6° 8 29'03		max. Earth dist.	-3437 Nov 21 j 21:45	4°MJ36'48	6.13512 AU
	-3442 Apr 18 j 11:52			morning rise	-3437 Dec 05 j 08:05	7°M45'23	
evening set	-3442 Jun 04 j 22:58				-3436 Jan 06 j 14:12	15° M ₊	
Č	,	_		desc. node	-3436 Apr 02 j 09:17		
conjunction	-3442 Jun 18 j 11:50	27° 8 43'28	0°16'36	retrograde	-3436 Apr 12 j 04:22		
minimum elong	-3442 Jun 18 j 11:49		0°16'42	opposition	-3436 Jun 12 j 02:40		0°-12'-50
max. Earth dist.	-3442 Jun 18 j 10:54		6.32811 AU	min. Earth dist.	-3436 Jun 12 j 05:15		4.08460 AU
	-3442 Jun 28 j 19:46	0°II		direct	-3436 Aug 10 j 17:40		
morning rise	-3442 Jul 01 j 22:07	0° Ⅱ 40'46			-3436 Nov 15 j 23:33	0° ∡ 7	
retrograde	-3442 Oct 31 j 10:14			evening set	-3436 Dec 12 j 22:11	6° ⋌ 11'41	
opposition	-3442 Dec 30 j 05:20		0°54'13	evening sec	3.30 Bee 12 j 22.11	0 7. 11 11	
min. Earth dist.	-3442 Dec 30 j 13:12		4.36415 AU	conjunction	-3436 Dec 25 j 20:56	9° √ 16'21	0°-31'-56
direct	-3441 Mar 01 j 22:18	8° I 102'52	4.50415710	minimum elong	-3436 Dec 25 j 20:53	9° х 16'20	0°32'04
evening set	-3441 Jul 07 j 17:18			max. Earth dist.	-3436 Dec 26 j 05:12	9° × ⁷ 21'17	6.04445 AU
evening set	-3441 Jul 0/ j 1/.16	20 1101 12		morning rise	-3435 Jan 07 j 22:36		0.04443 AU
conjunction	-3441 Jul 20 j 21:21	200T 52140	0°55'34	morning rise	-3435 Apr 09 j 03:42	12 メ ・22 41	
minimum elong	-3441 Jul 20 j 21:18		0°55'41	retrograde		0 3 2° る 28'16	
C	3			retrograde	-3435 May 19 j 09:03		
max. Earth dist.	-3441 Jul 19 j 22:34		6.38754 AU	•,•	-3435 Jun 28 j 16:06		10.201.2
	-3441 Jul 25 j 22:07	0°9		opposition	-3435 Jul 18 j 20:50		
morning rise	-3441 Aug 02 j 21:59	1°5544'46		min. Earth dist.	-3435 Jul 18 j 05:17		4.01808 AU
retrograde	-3441 Dec 01 j 05:08	18°545'39	1010110	direct	-3435 Sep 15 j 08:52		
opposition	-3440 Jan 30 j 10:15	13°952'38	1°40'40		-3435 Nov 24 j 17:56	0°る	
min. Earth dist.	-3440 Jan 31 j 07:53	13° © 45'39	4.39792 AU	evening set	-3434 Jan 17 j 18:20	11° 6 49'56	
direct	-3440 Apr 01 j 22:05	8° © 49'59				_	
evening set	-3440 Aug 07 j 07:10			conjunction	-3434 Jan 31 j 00:34		-1°-9'-5
max. Earth dist.	-3440 Aug 18 j 11:32	29° © 08'52	6.39187 AU	minimum elong	-3434 Jan 31 j 00:31		1°09'13
				max. Earth dist.	-3434 Feb 01 j 10:48		6.00748 AU
conjunction	-3440 Aug 20 j 02:22		1°18'23	morning rise	-3434 Feb 13 j 09:58		
minimum elong	-3440 Aug 20 j 02:21		1°18'29		-3434 Apr 08 j 08:50	0° ≈	
	-3440 Aug 22 j 08:21	0 $^{\circ}\Omega$		retrograde	-3434 Jun 25 j 14:25	8° ≈ 30'58	
morning rise	-3440 Sep 01 j 18:46	2° Ω 17'38		min. Earth dist.	-3434 Aug 23 j 09:14	3° ≈ 35'44	4.01640 AU
	-3440 Nov 06 j 13:34	15° Ω		opposition	-3434 Aug 24 j 12:16	3° ≈ 26'35	-1°-57'-48
retrograde	-3440 Dec 31 j 11:25	19° Ω 23'11			-3434 Sep 21 j 19:22	30°Ŗ₹	
	-3439 Feb 26 j 09:40	15°R Ω		direct	-3434 Oct 21 j 12:08	28° る 31'10	
opposition	-3439 Mar 02 j 02:48	14° £ 31'36	1°59'07		-3434 Nov 20 j 05:00	0° ≈	
min. Earth dist.	-3439 Mar 03 j 08:41	14° Ω 22'04	4.37386 AU		-3433 Feb 11 j 12:57	15° ≈	
direct	-3439 May 03 j 18:34	9° Ω 30'53		evening set	-3433 Feb 23 j 18:13	17° ≈ 50′07	
	-3439 Jul 06 j 07:37	15° Ω					
evening set	-3439 Sep 07 j 07:37	27° Ω 26'54		conjunction	-3433 Mar 09 j 07:30	21° ≈ 01'15	-1°-20'-14
max. Earth dist.	-3439 Sep 18 j 03:44	29° Ω 51'57	6.34027 AU	minimum elong	-3433 Mar 09 j 07:30	21° ≈ 01'15	1°20'20
	-3439 Sep 18 j 18:07	0° m)		max. Earth dist.	-3433 Mar 11 j 05:17	21° ≈ 28′11	6.03979 AU
	-			morning rise	-3433 Mar 22 j 23:37	24° ≈ 13'39	
conjunction	-3439 Sep 19 j 21:33	0° m/ 15'22	1°19'13		-3433 Apr 17 j 08:29	0° ∀	
minimum elong	-3439 Sep 19 j 21:34	0° m) 15'22		retrograde	-3433 Jul 31 j 10:19	14°) €07'10	
morning rise	-3439 Oct 02 j 09:27	3° m 03'01		opposition	-3433 Sep 28 j 23:58	9°) 02'04	-1°-50'-34
retrograde	-3438 Feb 01 j 21:47	20° m/37'16		min. Earth dist.	-3433 Sep 27 j 18:45	9°) 12′03	4.07982 AU
opposition	-3438 Apr 03 j 22:15	15° mp 45'21	1°43'55	direct	-3433 Nov 26 j 07:36	4°) €03'24	
min. Earth dist.	-3438 Apr 05 j 03:19	15° Mp 36'07	4.29774 AU	evening set	-3432 Mar 31 j 16:31		
direct	-3438 Jun 05 j 00:44	10° Mp 47'23				. , ,	
evening set	-3438 Oct 08 j 13:49	28° m 58'07		conjunction	-3432 Apr 14 j 10:41	26°¥16'35	-1°-1'-36
	-3438 Oct 13 j 02:33	0° ರ		minimum elong	-3432 Apr 14 j 10:45		
max. Earth dist.	-3438 Oct 19 j 15:26	0 == 1° £ 29'44	6.24578 AU	max. Earth dist.	-3432 Apr 16 j 03:41		
mas. Luitii dist.	5 150 Oct 17 j 15.20	. —2777	5.2 15 / 6 / 10	morning rise	-3432 Apr 10 j 05:41		J.12000 AU
conjunction	-3438 Oct 21 j 02:49	1° £ 50′00	0°56'51	morning risc	-3432 Apr 30 j 17:21	29 γ (2007 0° γ	
minimum elong	-3438 Oct 21 j 02:49	1° £ 50'02	0°56'50	retrograde	-3432 Apr 30 j 17.21 -3432 Sep 02 j 11:38		
morning rise	-3438 Nov 02 j 15:40	4° £ 42'00	0 00 00	opposition	-3432 Sep 02 j 11.38 -3432 Oct 31 j 20:30		_10_// 20
-					-3432 Oct 31 j 20:30 -3432 Oct 31 j 00:33		
retrograde	-3437 Mar 08 j 04:24		0°56'11	min. Earth dist.	-	8° Υ 20'02	4.10300 AU
opposition	-3437 May 08 j 06:33 -3437 May 09 j 02:25	18° ♀ 10'17 18° ♀ 03'55	4.19010 AU	direct	-3432 Dec 30 j 05:59 -3431 May 06 j 11:20		
min. Earth dist.			4.17010 AU	evening set	-5451 May 00 J 11:20	20 1 38 24	
direct	-3437 Jul 08 j 07:19	15 = 15 03					

•	iical year style is used: Tl		•				ige 42
conjunction	-3431 May 20 j 05:09			retrograde	-3425 Mar 13 j 01:07		
minimum elong	-3431 May 20 j 05:11	0° 8 02'51		opposition	-3425 May 13 j 03:34		0°47'27
minimum ciong	-3431 May 20 j 00:04	0°8	0 22 16	min. Earth dist.	-3425 May 13 j 21:28		4.17442 AU
max. Earth dist.	-3431 May 20 j 00:04 -3431 May 21 j 02:57	0° 8 15'03	6.24018 AU	direct	-3425 Jul 12 j 23:16		4.17442 AU
morning rise	-3431 Jun 02 j 21:44	3° 8 06'27	0.24018 AU	direct	-3425 Oct 16 j 05:17	0°M	
morning risc	-3431 Jul 31 j 17:09			evening set	-3425 Nov 14 j 12:00	6°M36'10	
retrograde	-3431 Oct 04 j 16:00			evening set	-3423 NOV 14 J 12.00	0 1163010	
asc. node	-3431 Dec 02 j 10:52			conjunction	-3425 Nov 27 j 05:17	9°M35'12	0°09'18
opposition	-3431 Dec 02 j 10.32		0°00'07	minimum elong	-3425 Nov 27 j 05:17	9°M35'13	0°09'13
min. Earth dist.	-3431 Dec 02 j 22:02		4.29222 AU	behind sun begin	-3425 Nov 26 j 22:28	9°M31'13	0 07 13
mm. Earth dist.	•		4.27222 110	behind sun end	-3425 Nov 27 j 12:06	9°M39'12	
direct	-3430 Feb 01 j 20:29	11° 8 04'00		max. Earth dist.	-3425 Nov 26 j 14:57	9°M26'48	6.11983 AU
direct	-3430 Mar 26 j 04:22			morning rise	-3425 Dec 10 j 00:21	12°M35'21	0.11703710
evening set	-3430 Jun 09 j 15:07			morning rise	-3425 Dec 20 j 10:04		
e venning see	-3430 Jun 12 j 20:35	0°II		desc. node	-3424 Feb 11 j 17:45		
	3 130 Juni 12 j 20.33	• 4		desc. Hode	-3424 Mar 11 j 16:17	0° √	
conjunction	-3430 Jun 23 j 02:55	2° Ⅱ 15'29	0°22'41	retrograde	-3424 Apr 17 j 07:02	2° × 102'19	
minimum elong	-3430 Jun 23 j 02:53	2° Ⅱ 15'28	0°22'47		-3424 May 24 j 01:43		
max. Earth dist.	-3430 Jun 22 j 23:19			opposition	-3424 Jun 17 j 04:17	•	0°-22'-57
morning rise	-3430 Jul 06 j 11:56	5° I 11'53	0.55711110	min. Earth dist.	-3424 Jun 17 j 04:23		4.07091 AU
retrograde	-3430 Nov 04 j 18:49	22° Ⅱ 29'45		direct	-3424 Aug 15 j 15:27		, 0, 1110
opposition	-3429 Jan 03 j 14:20	17° I I34'07	1°02'03	411001	-3424 Oct 27 j 16:44	0° ₹	
min. Earth dist.	-3429 Jan 04 j 00:23	17° I I30'50	4.37133 AU	evening set	-3424 Dec 17 j 19:20		
direct	-3429 Mar 06 j 11:05	12° I I30'33	1.57155116	evening sec	3121 Dec 17 j 19.20	11 7 120)	
	-3429 Jul 10 j 02:39	0.ಪ		conjunction	-3424 Dec 30 j 19:14	14° ∡ 18'36	0°-38'-10
evening set	-3429 Jul 12 j 05:02	0°927'20		minimum elong	-3424 Dec 30 j 19:11		0°38'18
max. Earth dist.	-3429 Jul 24 j 05:58	3°905'07	6.39172 AU	max. Earth dist.	-3424 Dec 31 j 08:18		6.03371 AU
man. Darur alov.	3.25 van 2.5 oo.00	2 202 07	0.55172110	morning rise	-3423 Jan 12 j 21:53		0.055 / 1 110
conjunction	-3429 Jul 25 j 07:45	3°519'14	0°59'54		-3423 Mar 11 j 22:03	0°る	
minimum elong	-3429 Jul 25 j 07:42	3°5519'13	1°00'02	retrograde	-3423 May 24 j 15:44	7° る 36'36	
morning rise	-3429 Aug 07 j 07:10	6°909'30		min. Earth dist.	-3423 Jul 23 j 07:10	2° る 40'29	4.01168 AU
retrograde	-3429 Dec 05 j 13:01	23° © 09'17		opposition	-3423 Jul 24 j 00:21	2° る 34'46	-1°-27'-39
opposition	-3428 Feb 03 j 19:41	18° © 16'30	1°45'06	· PP · · · · · · ·	-3423 Aug 13 j 10:32		
min. Earth dist.	-3428 Feb 04 j 18:26	18° © 09'10	4.39888 AU	direct	-3423 Sep 20 j 09:24		
direct	-3428 Apr 06 j 08:38	13°5514'00	5,000110	411001	-3423 Oct 27 j 21:12	0°ਰ	
	-3428 Aug 06 j 15:57	0°N		evening set	-3422 Jan 22 j 21:41		
evening set	-3428 Aug 11 j 15:31	1° Ω 05'06		evening see	3.22 van 22 j 21. 11	1, 00002	
max. Earth dist.	-3428 Aug 22 j 19:11		6.38922 AU	conjunction	-3422 Feb 05 i 04:49	20°る10'02	-1°-12'-26
	2 12 2 1 1 1 J			minimum elong	-3422 Feb 05 j 04:46		1°12'34
conjunction	-3428 Aug 24 j 09:49	3° Ω 53'32	1°19'53	max. Earth dist.	-3422 Feb 06 j 16:25		6.00578 AU
minimum elong	-3428 Aug 24 j 09:48	3° £ 53′31	1°19'58	morning rise	-3422 Feb 18 j 15:26		
morning rise	-3428 Sep 06 j 01:09	6° Ω 40'36		C	-3422 Mar 19 j 13:15	0° ≈	
S	-3428 Oct 16 j 01:55			retrograde	-3422 Jun 30 j 16:25	13° ≈ 41'38	
retrograde	-3427 Jan 04 j 21:25	23° Ω 48'18		min. Earth dist.	-3422 Aug 28 j 08:55	8° ≈ 46'50	4.02001 AU
opposition	-3427 Mar 06 j 14:37	18° Ω 56'48	1°59'02	opposition	-3422 Aug 29 j 13:55	8° ≈ 37'00	-1°-59'-34
min. Earth dist.	-3427 Mar 07 j 20:50	18° Ω 47'10	4.36752 AU	direct	-3422 Oct 26 j 12:43	3° ≈ 41'13	
	-3427 Apr 11 j 11:25	15°R Ω			-3421 Jan 24 j 10:20	15° ≈	
direct	-3427 May 08 j 05:24	13° Ω 56′28		evening set	-3421 Feb 28 j 23:42	22° ≈ 59'40	
	-3427 Jun 04 j 00:49	15° Ω		Č	ý		
	-3427 Sep 03 j 01:47	0° m		conjunction	-3421 Mar 14 j 13:59	26°≈10'49	-1°-19'-18
evening set	-3427 Sep 11 j 15:16	1° m 53'27		minimum elong	-3421 Mar 14 j 14:01	26°≈10'50	1°19'24
max. Earth dist.	-3427 Sep 22 j 09:39	4° m 17'59	6.33049 AU	max. Earth dist.	-3421 Mar 16 j 13:13	26° ≈ 38'32	6.04859 AU
	1 3	•		morning rise	-3421 Mar 28 j 06:41	29° ≈ 23′05	
conjunction	-3427 Sep 24 j 04:37	4° Mp 42'06	1°17'26	Ç	-3421 Mar 30 j 22:19	0°) €	
minimum elong	-3427 Sep 24 j 04:38	4° m) 42'07	1°17'30	retrograde	-3421 Aug 05 j 09:27	19°) 10′20	
morning rise	-3427 Oct 06 j 16:28	7° m/30'06		opposition	-3421 Oct 03 j 21:12	14°) €05'22	-1°-46'-3
retrograde	-3426 Feb 06 j 13:55	25° m 09'38		min. Earth dist.	-3421 Oct 02 j 17:01	14°) (14'59	4.09298 AU
opposition	-3426 Apr 08 j 14:14	20° m 17'32	1°39'04	direct	-3421 Dec 01 j 08:35	9°) €06'17	
min. Earth dist.	-3426 Apr 09 j 19:05	20° m/08'21	4.28488 AU	evening set	-3420 Apr 05 j 19:29	28°) €06'31	
direct	-3426 Jun 09 j 14:09	15° mp 19'54	-	Č	-3420 Apr 14 j 02:22	0° Υ	
	-3426 Sep 27 j 03:24	0∘ ⊽			1 52		
evening set	-3426 Oct 12 j 23:25	3° ≏ 33'13		conjunction	-3420 Apr 19 j 13:55	1° Y 15'14	0°-57'-1
max. Earth dist.	-3426 Oct 24 j 04:05	6° Ω 07'02	6.23104 AU	minimum elong	-3420 Apr 19 j 13:59	1°Υ15'16	0°57'01
	Ÿ			max. Earth dist.	-3420 Apr 21 j 06:17	1° Y 38'19	6.14528 AU
conjunction	-3426 Oct 25 j 12:50	6° £ 25'52	0°52'04	morning rise	-3420 May 03 j 08:55	4° Υ 24'01	
-				-			
minimum elong	-3426 Oct 25 j 12:53	6° £ 25'54	0°52'03	retrograde	-3420 Sep 07 j 01:17	23° Y 13'15	
minimum elong morning rise	-3426 Oct 25 j 12:53 -3426 Nov 07 j 02:03	6° ♀ 25'54 9° ♀ 18'40	0°52'03	retrograde opposition	-3420 Sep 07 j 01:17 -3420 Nov 05 j 11:24	23°Υ13'15 18°Υ10'30	0°-56'-4

•	nical year style is used: The		•	/ /			
min. Earth dist.	-3420 Nov 04 j 15:43	-		<i>C</i> , , ,	-3413 Feb 04 j 21:12	0°M	
direct	-3419 Jan 04 j 00:21	13° Y 08'35		retrograde	-3413 Mar 17 j 22:49	2°M31'27	
	-3419 May 03 j 15:31	9° 8			-3413 Apr 28 j 12:49	30° ₹ Ω	
evening set	-3419 May 11 j 08:22	1° 8 41'53		opposition	-3413 May 18 j 00:25	27° ≏ 36'36	0°38'31
				min. Earth dist.	-3413 May 18 j 16:14	27° ≏ 31'31	4.15282 AU
conjunction	-3419 May 25 j 01:28	4° 8 45'13		direct	-3413 Jul 17 j 14:59		
minimum elong	-3419 May 25 j 01:29	4° 8 45'13			-3413 Sep 27 j 01:40	0°M₊	
max. Earth dist.	-3419 May 25 j 19:35	4° 8 55'19	6.25946 AU	evening set	-3413 Nov 19 j 03:18	11°M24'51	
morning rise	-3419 Jun 07 j 17:11	7° 8 47'37					
	-3419 Jul 11 j 13:12			conjunction	-3413 Dec 01 j 21:37		0°02'41
retrograde	-3419 Oct 09 j 01:09			minimum elong	-3413 Dec 01 j 21:39		0°02'35
asc. node	-3419 Oct 13 j 05:01		000011.5	behind sun begin	-3413 Dec 01 j 13:36		
opposition	-3419 Dec 07 j 14:12	20° 8 40'12		behind sun end max. Earth dist.	-3413 Dec 02 j 05:41		C 00021 ATT
min. Earth dist. direct	-3419 Dec 07 j 10:32 -3418 Feb 06 j 11:54		4.31038 AU	max. Earth dist.	-3413 Dec 01 j 11:56 -3413 Dec 04 j 08:35		6.09921 AU
direct	-3418 May 27 j 16:37	13 O 36 42 0° I		morning rise	-3413 Dec 04 j 08.33		
evening set	-3418 Jun 14 j 04:45	3° ∏ 45′29		desc. node	-3413 Dec 14 j 17:41 -3413 Dec 23 j 10:52		
evening set	-5410 Juli 14 j 04.45	3 11 43 27		dese. Hode	-3412 Feb 11 j 13:01	0° ₹	
conjunction	-3418 Jun 27 j 15:24	6° Ⅱ 42'14	0°28'28	retrograde	-3412 Apr 22 j 13:19	7° ⋌ ¹03'31	
minimum elong	-3418 Jun 27 j 15:22	6° П 42'13	0°28'35	opposition	-3412 Jun 22 j 07:19	2° ₹ 05'02	0°-32'-56
max. Earth dist.	-3418 Jun 27 j 08:59	6° Ⅲ 38'43	6.35290 AU	min. Earth dist.	-3412 Jun 22 j 05:15	2° × 105'43	4.05328 AU
morning rise	-3418 Jul 10 j 23:00	9° Ⅱ 37'25			-3412 Jul 08 j 18:24		
retrograde	-3418 Nov 08 j 22:11	26° Ⅱ 49'34		direct	-3412 Aug 20 j 13:46	•	
opposition	-3417 Jan 07 j 20:30	21° Ⅱ 54'20	1°09'14		-3412 Oct 01 j 10:43	0° ∡ ¹	
min. Earth dist.	-3417 Jan 08 j 07:58	21° Ⅱ 50'35	4.38320 AU	evening set	-3412 Dec 22 j 19:16	16° ∡ 19'12	
direct	-3417 Mar 10 j 19:46	16° ∏ 50′46					
	-3417 Jun 24 j 04:30	0ಂತಾ		conjunction	-3411 Jan 04 j 20:07	19° ∡¹ 25'52	0°-44'-9
evening set	-3417 Jul 16 j 12:38	4°5944'27		minimum elong	-3411 Jan 04 j 20:03	19° ∡ ¹25'50	0°44'17
max. Earth dist.	-3417 Jul 28 j 09:26	7° © 19'52	6.39886 AU	max. Earth dist.	-3411 Jan 05 j 12:08	19° ∡ ³35′26	6.02055 AU
				morning rise	-3411 Jan 18 j 00:11		
conjunction	-3417 Jul 29 j 13:58	7° © 35'29	1°03'44		-3411 Feb 19 j 10:51	0°ප	
minimum elong	-3417 Jul 29 j 13:55	7° © 35'28	1°03'51	retrograde	-3411 May 29 j 22:35		
morning rise	-3417 Aug 11 j 12:02			min. Earth dist.	-3411 Jul 28 j 09:16	7° る 55'14	
retrograde	-3417 Dec 09 j 17:41		1040145	opposition	-3411 Jul 29 j 06:01	7°る48'18	-1°-34'-38
opposition	-3416 Feb 08 j 01:27		1°48'45	direct	-3411 Sep 25 j 10:58	2°る54'38	
min. Earth dist.	-3416 Feb 09 j 02:45	22°522'27	4.40084 AU	evening set	-3410 Jan 28 j 03:39	22° 5 15'42	
direct	-3416 Apr 10 j 16:42 -3416 Jul 21 j 21:25	1/2 9 2816		conjunction	-3410 Feb 10 j 12:01	250=226114	10 15! 14
evening set	-3416 Jul 21 j 21:25 -3416 Aug 15 j 19:48	5° Ω 18'42		minimum elong	-3410 Feb 10 j 12:01 -3410 Feb 10 j 11:59		1°15'21
max. Earth dist.	-3416 Aug 26 j 19:24	7° Ω 43'49	6.38549 AU	max. Earth dist.	-3410 Feb 12 j 04:04		6.00540 AU
max. Lartii dist.	5410 Aug 20 j 17.24	7 00-13 17	0.30347710	morning rise	-3410 Feb 23 j 23:33		0.00340710
conjunction	-3416 Aug 28 j 13:08	8° Ω 06'52	1°20'52	morning rise	-3410 Mar 01 j 18:16	0°≈	
minimum elong	-3416 Aug 28 j 13:07	8° Ω 06'51	1°20'58		J		
morning rise	-3416 Sep 10 j 03:48	10° Ω 53'48		retrograde	-3410 Jul 05 j 22:19	18° ≈ 56'38	
	-3416 Sep 29 j 04:05	15° Ω		C	-3410 Aug 26 j 06:55	15°R≈	
retrograde	-3415 Jan 09 j 04:35	28° Ω 04'15		opposition	-3410 Sep 03 j 17:27	13° ≈ 51'43	-2°00'-22
opposition	-3415 Mar 10 j 22:54	23° Ω 12'44	1°58'18	min. Earth dist.	-3410 Sep 02 j 12:06	14° ≈ 01'42	4.02615 AU
min. Earth dist.	-3415 Mar 12 j 05:59	23° Ω 02'50	4.35840 AU	direct	-3410 Oct 31 j 17:40	8° ≈ 55'29	
direct	-3415 May 12 j 12:04	18° Ω 12'37			-3409 Jan 02 j 18:08	15° ≈	
	-3415 Aug 18 j 02:13	0° m		evening set	-3409 Mar 06 j 06:57		
evening set	-3415 Sep 15 j 19:31	6° Mp 11'45			-3409 Mar 13 j 23:51	0° ∀	
max. Earth dist.	-3415 Sep 26 j 14:46	8° m ,37′12	6.31663 AU				
		00*** 0 ***	101515	conjunction	-3409 Mar 19 j 22:03	1° ∺ 23′08	-1°-17'-43
conjunction	-3415 Sep 28 j 08:46	9° m, 00'51	1°15'17	minimum elong	-3409 Mar 19 j 22:05	1°) €23'10	1°17'48
minimum elong	-3415 Sep 28 j 08:49	9° Mp 00'53	1°15'19	max. Earth dist.	-3409 Mar 21 j 22:30	1° 米 51′28	6.06032 AU
morning rise	-3415 Oct 10 j 20:26	11° Mp 49'23		morning rise	-3409 Apr 02 j 15:23	4° ¥ 35′06	
retrograde	-3414 Feb 11 j 03:38	29° Mp 35'48	1022147	retrograde	-3409 Aug 10 j 06:54	24° 	-1°-40'-40
opposition min. Earth dist.	-3414 Apr 13 j 04:04 -3414 Apr 14 j 08:49	24° Mp 43'31 24° Mp 34'22	1°33'47 4.26701 AU	opposition min. Earth dist.	-3409 Oct 08 j 18:32 -3409 Oct 07 j 14:00	19° ∺ 09′40 19° ∺ 19′24	-1°-40′-40 4.10871 AU
direct	-3414 Apr 14 j 08:49 -3414 Jun 14 j 00:33	19° Mp 46'16	7.20/01 AU	direct	-3409 Oct 0/j 14:00 -3409 Dec 06 j 08:12	14° H 10'08	7.100/1 AU
direct	-3414 Jun 14 J 00:33 -3414 Sep 10 j 06:32	0° ₽		uncci	-3409 Dec 06 j 08:12 -3408 Mar 28 j 02:59	14° π 10'08 0° Υ	
evening set	-3414 Oct 17 j 07:36	0 == 8° ჲ 04'04		evening set	-3408 Apr 10 j 22:55	3° Υ 06'03	
J. Ching Set	5.11.00t 1/j0/.30	5 — 07 07		J. Gilling Sot	5 100 ripi 10 J 22.33	2 1 00 03	
conjunction	-3414 Oct 29 j 21:18	10° ≏ 57'42	0°47'03	conjunction	-3408 Apr 24 j 17:23	6° Ƴ 14'00	0°-51'-58
minimum elong	-3414 Oct 29 j 21:20	10° ≙ 57'44	0°47'03	minimum elong	-3408 Apr 24 j 17:27	6° Ƴ 14'02	0°51'58
max. Earth dist.	-3414 Oct 28 j 12:37		6.21061 AU	max. Earth dist.	-3408 Apr 26 j 06:17	6° Ƴ 35′02	6.16343 AU
morning rise	-3414 Nov 11 j 11:21	13° ≙ 51'42		morning rise	-3408 May 08 j 12:19	9° Ƴ 21'55	

					AG 7-Dez-2017 14		ige 44
Attention, astronom		-	in astronomical cou		3409 BCE in historical of		
retrograde	-3408 Sep 11 j 16:29			morning rise	-3403 Oct 15 j 05:32	16° My 22'40	
min. Earth dist.	-3408 Nov 09 j 09:32		4.22094 AU		-3403 Dec 23 j 15:40	0∘ ⊽	
opposition	-3408 Nov 10 j 02:31	22° Y 59′23	0°-47'-11	retrograde	-3402 Feb 15 j 21:57	4° £ 16′17	
direct	-3407 Jan 08 j 20:58	17° Y 57′09			-3402 Apr 13 j 05:12	•	
	-3407 Apr 16 j 05:08	0°8		opposition	-3402 Apr 17 j 23:28	29° m 23'42	1°27'38
evening set	-3407 May 16 j 05:13	6° 8 25'48		min. Earth dist.		29° m 15'07	4.25009 AU
				direct	-3402 Jun 18 j 15:45	24° Mp 26'51	
conjunction	-3407 May 29 j 21:48	9° 8 28'08	0°-9'-42		-3402 Aug 20 j 06:09	0∘ ⊽	
minimum elong	-3407 May 29 j 21:49	9° 8 28'09	0°09'38	evening set	-3402 Oct 21 j 20:40	12° ≏ 48'29	
behind sun begin	-3407 May 29 j 15:02	9° 8 24'24		max. Earth dist.	-3402 Nov 02 j 06:14	15° ≏ 26′26	6.19324 AU
behind sun end	-3407 May 30 j 04:36	9° 8 31'54					
max. Earth dist.	-3407 May 30 j 13:35	9° 8 36'55	6.27674 AU	conjunction	-3402 Nov 03 j 10:58	15° ≏ 43'05	0°41'30
morning rise	-3407 Jun 12 j 12:28	12° 8 29'25		minimum elong	-3402 Nov 03 j 11:01	15° ≏ 43'06	0°41'29
	-3407 Jun 23 j 23:54			morning rise	-3402 Nov 16 j 01:33	18° ≏ 38′06	
asc. node	-3407 Aug 22 j 18:23	26° 8 13'03			-3401 Jan 08 j 16:37	0°M₊	
	-3407 Oct 01 j 16:00	Π °0		retrograde	-3401 Mar 23 j 01:33	7°M26'25	
retrograde	-3407 Oct 13 j 09:35	0° Ⅱ 13'31		opposition	-3401 May 23 j 01:54	2°M31'10	0°28'52
	-3407 Oct 25 j 02:22			min. Earth dist.	-3401 May 23 j 15:51	2°M26'41	4.13640 AU
opposition	-3407 Dec 12 j 00:37	25° 8 15'04	0°18'26		-3401 Jun 12 j 15:30	30° ₹ Ω	
min. Earth dist.	-3407 Dec 11 j 22:24		4.32517 AU	direct	-3401 Jul 22 j 12:36	27° ≏ 36'56	
direct	-3406 Feb 11 j 01:10	20° 8 11'33			-3401 Aug 30 j 15:59	0°M₊	
	-3406 May 09 j 19:17	Π °0		desc. node	-3401 Nov 01 j 15:41	11°M16'32	
evening set	-3406 Jun 18 j 19:39	8° Ⅱ 16'59			-3401 Nov 17 j 23:32	15°M₊	
				evening set	-3401 Nov 23 j 22:28	16°ML23'34	
conjunction	-3406 Jul 02 j 04:54	11° Ⅱ 12'45	0°34'14				
minimum elong	-3406 Jul 02 j 04:52	11° Ⅱ 12'43	0°34'21	conjunction	-3401 Dec 06 j 17:30	19°M24'51	0°-4'-19
max. Earth dist.	-3406 Jul 01 j 17:39	11° Ⅱ 06'34	6.36404 AU	minimum elong	-3401 Dec 06 j 17:30	19°M24'51	0°04'25
morning rise	-3406 Jul 15 j 11:17	14° Ⅱ 06'57		behind sun begin	-3401 Dec 06 j 09:35	19°M20'12	
	-3406 Oct 16 j 00:14	0ಂತಾ		behind sun end	-3401 Dec 07 j 01:26	19°M29'31	
retrograde	-3406 Nov 13 j 06:39	1° © 15'15		max. Earth dist.	-3401 Dec 06 j 10:32	19°M20'45	6.08541 AU
	-3406 Dec 11 j 10:21	30°RⅡ		morning rise	-3401 Dec 19 j 14:47	22°M27'28	
opposition	-3405 Jan 12 j 05:11	26° Ⅱ 20'30	1°16'16		-3400 Jan 21 j 22:26	0° ∡¹	
min. Earth dist.	-3405 Jan 12 j 19:56	26° Ⅱ 15'41	4.39012 AU	retrograde	-3400 Apr 27 j 18:38	12° ∡ 11'14	
direct	-3405 Mar 15 j 08:32	21° II 17'03		opposition	-3400 Jun 27 j 12:28	7° ∡ 12'07	0°-42'-55
	-3405 Jun 06 j 01:08	0ಂತ		min. Earth dist.	-3400 Jun 27 j 06:21	7° ∡ 14'08	4.04370 AU
evening set	-3405 Jul 20 j 22:54	9° 5 09'22		direct	-3400 Aug 25 j 13:56	2° ∡ 19′05	
				evening set	-3400 Dec 27 j 20:25	21° ∡ °28'32	
conjunction	-3405 Aug 02 j 23:06	11°959'50	1°07'22				
minimum elong	-3405 Aug 02 j 23:03	11° 9 59'48	1°07'29				
max. Earth dist.	-3405 Aug 01 j 16:09	11°9542'53	6.40088 AU				
morning rise	-3405 Aug 15 j 19:54	14°5548'40					
	-3405 Nov 09 j 23:23	$0^{\circ}\Omega$					
retrograde	-3405 Dec 14 j 01:06	1° Ω 47'03					
	-3404 Jan 17 j 07:49	30°Rூ					
opposition	-3404 Feb 12 j 11:12	26°954'47	1°52'02				
min. Earth dist.	-3404 Feb 13 j 13:13	26°9546'25	4.39816 AU				
direct	-3404 Apr 15 j 01:57	21° © 52'43					
	-3404 Jul 03 j 12:25	$0^{\circ}\Omega$					
evening set	-3404 Aug 20 j 04:01	9° Ω 43'54					
max. Earth dist.	-3404 Aug 31 j 02:19		6.37824 AU				
conjunction	-3404 Sep 01 j 20:31	12° Ω 31'59	1°21'29				
minimum elong	-3404 Sep 01 j 20:30		1°21'35				
-	-3404 Sep 13 j 00:06	15° Ω					
morning rise	-3404 Sep 14 j 10:28	15° Ω 18'55					
-	-3404 Dec 03 j 09:57	0° m)					
retrograde	-3403 Jan 13 j 18:01	2° m/33'25					
	-3403 Feb 24 j 15:32	30°R€					
opposition	-3403 Mar 15 j 12:43		1°56'55				
min. Earth dist.	-3403 Mar 16 j 20:51		4.34698 AU				
direct	-3403 May 17 j 01:20	22° Ω 42'14					
	-3403 Jul 30 j 00:48	0° m)					
evening set	-3403 Sep 20 j 04:41	10° m 43'53					
max. Earth dist.	-3403 Sep 30 j 23:05	13° m 09'24	6.30196 AU				
	-						
conjunction	-3403 Oct 02 j 17:42	13° m 33'29	1°12'35				
minimum elong	-3403 Oct 02 i 17:44	13° m 33'30	1°12'36				

minimum elong

-3403 Oct 02 j 17:44 13° **m** 33'30 1°12'36

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3400 in astronomical counting style is the year 3401 BCE in historical counting style. -3400 Jan 21 j 22:26 0°×7 -3395 Aug 22 j 12:27 $\Pi^{\circ}0$ -3400 Apr 27 j 18:38 12° ₹ 11'14 -3395 Oct 17 j 17:30 4°**Ⅱ**40'38 retrograde retrograde -3400 Jun 27 j 12:28 7°**≯**12'07 0°-42'-55 -3395 Dec 14 j 04:44 30°R8 opposition min. Earth dist. -3400 Jun 27 j 06:21 7°**∡**14'08 4.04370 AU -3395 Dec 16 j 08:41 29°842'45 0°27'16 opposition -3395 Dec 16 j 09:50 29°842'22 direct -3400 Aug 25 j 13:56 2°**₹**19'05 min. Earth dist. 4.33536 AU -3394 Feb 15 j 14:04 24°**8**39'07 evening set -3400 Dec 27 j 20:25 21° ₹28'32 direct -3394 Apr 18 j 21:33 $0^{\circ}\Pi$ conjunction -3399 Jan 09 j 22:21 24°**尽** 35'50 0°-49'-52 evening set -3394 Jun 23 j 08:14 12°**Ⅲ**42'50 minimum elong -3399 Jan 09 j 22:18 24°**х** 35'48 0°50'01 max. Earth dist. -3399 Jan 10 j 19:38 24°**х** 48'33 6.01606 AU conjunction -3394 Jul 06 j 16:30 15°**Ⅲ**37'54 0°39'40 morning rise -3399 Jan 23 j 03:19 27° ₹ 44'51 minimum elong -3394 Jul 06 j 16:28 15°**Ⅲ**37'53 0°39'48 -3399 Feb 01 j 16:54 -3394 Jul 06 j 03:05 15°**Ⅲ**30'33 0°ಕ max. Earth dist. 6.37017 AU retrograde -3399 Jun 04 j 05:15 18°る03'06 morning rise -3394 Jul 19 j 21:27 18°**Ⅲ**31'20 opposition -3399 Aug 03 j 10:40 13°る00'12 -1°-40'-49 -3394 Sep 16 j 00:46 min. Earth dist. -3399 Aug 02 j 12:43 13°**る**07'33 4.00595 AU retrograde -3394 Nov 17 j 12:15 5°937'35 direct -3399 Sep 30 j 15:07 8°**ට**06'14 opposition -3393 Jan 16 j 12:59 0°5643'18 1°22'47 evening set -3398 Feb 02 j 08:18 27°**る**26'38 min. Earth dist. -3393 Jan 17 j 04:56 0°938'06 4.39214 AU -3398 Feb 13 j 02:52 -3393 Jan 22 j 02:29 30°Ŗ**Ⅱ** direct -3393 Mar 19 j 17:26 25°**Ⅲ**40'01 conjunction -3398 Feb 15 j 17:34 0°≈37'16 -1°-17'-25 -3393 May 14 j 20:55 0ಂಣ minimum elong -3398 Feb 15 j 17:32 0°≈37'15 1°17'32 evening set -3393 Jul 25 j 08:32 13°532'31 max. Earth dist. -3398 Feb 17 j 12:04 1°≈02'31 6.01202 AU max. Earth dist. -3393 Aug 05 j 21:31 16°503'57 6.39849 AU morning rise -3398 Mar 01 i 06:03 3°≈49'30 -3398 Apr 21 j 02:26 15°≈ conjunction -3393 Aug 07 i 07:25 16°522'33 1°10'34 -3398 Jul 10 j 22:45 24°≈03'01 -3393 Aug 07 j 07:22 16°522'32 1°10'41 retrograde minimum elong -3398 Sep 07 j 10:39 19°≈08'18 4.03760 AU -3393 Aug 20 j 03:14 19°5511'04 min. Earth dist. morning rise -3398 Sep 08 j 17:07 18°≈57'56 -3393 Oct 13 j 07:46 opposition -2°00'-10 $0^{\circ}\Omega$ -3398 Oct 12 j 18:40 15°R≈ -3393 Dec 18 j 11:35 6°**Ω**11′09 retrograde -3398 Nov 05 j 17:42 14°≈01'14 -3392 Feb 16 j 21:45 direct 1°Ω19'09 1°54'40 opposition -3398 Nov 29 j 20:34 15°≈ -3392 Feb 18 j 01:51 1°**Ω**10′09 4.39178 AU min. Earth dist. -3392 Feb 27 j 07:28 30°Rூ -3397 Feb 25 j 07:05 0°**₩** -3392 Apr 19 j 14:02 26°\$17'24 -3397 Mar 11 j 10:31 3°**)** 14'35 direct evening set -3392 Jun 10 j 04:45 0°**Ω** -3397 Mar 25 j 02:11 6°**¥**25'09 -1°-15'-37 -3392 Aug 24 j 12:47 14° Ω10'19 conjunction evening set 6°**¥**25'11 1°15'40 -3392 Aug 28 j 06:52 15°**Ω** minimum elong -3397 Mar 25 j 02:14 -3397 Mar 27 j 00:42 -3392 Sep 04 j 10:03 16° **Ω**34'52 6.36830 AU max. Earth dist. 6°**¥**52'15 6.07527 AU max. Earth dist. morning rise -3397 Apr 07 j 20:02 9° **★**36'37 retrograde -3397 Aug 15 j 00:24 29°**₭**07'28 conjunction -3392 Sep 06 j 04:40 16° **Ω**58'31 1°21'37 -3397 Oct 12 j 09:07 24°¥11'54 4.12536 AU -3392 Sep 06 j 04:40 16°**Ω**58'31 1°21'42 min. Earth dist. minimum elong -3397 Oct 13 j 11:45 24° **★** 02'48 -1°-34'-45 morning rise -3392 Sep 18 j 18:01 19°**Ω**45'37 opposition -3397 Dec 11 j 05:41 19°**₭**02'46 -3392 Nov 07 j 20:17 0° m direct -3396 Mar 10 j 11:05 $0^{\circ}\Upsilon$ -3391 Jan 18 j 06:56 7°**™**04'58 retrograde -3396 Apr 15 j 21:48 7°Υ54'19 -3391 Mar 20 j 03:40 2° Mp 13'27 1°54'47 evening set opposition -3391 Mar 21 j 10:29 2° m 03'38 4.33433 AU min. Earth dist. -3396 Apr 29 j 16:28 11°**Y**01'36 0°-46'-45 -3391 Apr 07 j 06:55 30°RΩ conjunction -3396 Apr 29 j 16:32 11°**Υ**01'38 minimum elong direct -3391 May 21 j 13:14 $27^{\circ}\Omega$ 14'10 $-3396 \text{ May } 01 \text{ j } 03:45 \quad 11^{\circ} \Upsilon 21'37$ max. Earth dist. 6.18055 AU -3391 Jul 04 i 08:55 0° m -3396 May 13 j 10:58 14° Υ 08'36 morning rise evening set -3391 Sep 24 i 14:57 15° mp 18'34 -3396 Aug 05 j 18:31 0°8 max. Earth dist. -3391 Oct 05 j 11:38 17° m 45'53 6.28773 AU -3396 Sep 16 i 03:15 2°839'44 retrograde -3396 Oct 27 j 07:39 30°R℃ -3391 Oct 07 i 03:54 18° m 08'43 1°09'23 conjunction -3396 Nov 14 j 13:49 27°**Y**'37'58 0°-38'-20 -3391 Oct 07 j 03:56 18° m 08'44 1°09'25 opposition minimum elong -3396 Nov 13 j 22:36 27°**Υ**'43'06 4.23688 AU -3391 Oct 19 j 15:48 20° m 58'33 min. Earth dist. morning rise -3395 Jan 13 j 11:35 22°**Y**'35'29 direct -3391 Dec 01 j 01:09 0∘∙თ -3395 Mar 27 j 23:19 0°႘ retrograde -3390 Feb 20 j 19:04 8°**₽**59'06 -3395 May 20 j 22:48 11°**8**00'35 -3390 Apr 22 j 20:13 4°₽06'17 1°20'48 evening set opposition min. Earth dist. -3390 Apr 23 j 22:17 3°**♀**57'59 4.23504 AU -3395 Jun 03 j 14:30 14°\(\colon\)02'03 0°-3'-26 -3390 May 31 j 00:32 30°R M conjunction -3395 Jun 03 j 14:30 14°**8**02'03 0°03'23 -3390 Jun 23 j 10:00 29° m 09'53 minimum elong direct -3395 Jun 03 j 06:16 13°**8**57'30 -3390 Jul 16 j 15:48 behind sun begin 0∘**⊽** -3395 Jun 03 j 22:44 14°**8**06'36 -3390 Oct 26 j 10:25 17°**△**34'29 behind sun end evening set max. Earth dist. -3395 Jun 04 j 00:39 14°**8**07'40 6.29024 AU max. Earth dist. -3390 Nov 06 j 22:21 20°**△**14'20 6.17871 AU

conjunction

minimum elong

-3390 Nov 08 j 01:07 20°**£**29'53

-3390 Nov 08 j 01:10 20°**£**29'55

0°35'36

-3395 Jun 07 j 22:58 15°**8**

-3395 Jun 17 j 04:24 17°**8**02'24

-3395 Jul 03 j 09:57 20°**8**33'55

morning rise

asc. node

Attantian astronom	ical records trile is used. Ti	2200 2200	in actromomical acr	untina atrila ia tha riaan	2201 DCE in historical a	anntina atrila	
	ical year style is used: Tl	-	in astronomicai cot				
morning rise	-3390 Nov 20 j 16:34			min. Earth dist.	-3384 Nov 18 j 12:37		4.24991 AU
	-3390 Dec 20 j 01:18	0°M			-3384 Dec 06 j 19:47		
retrograde	-3389 Mar 28 j 02:20			direct	-3383 Jan 18 j 03:50		
opposition	-3389 May 28 j 03:14	7°M25'53	0°18'58		-3383 Mar 01 j 22:57	0°8	
min. Earth dist.	-3389 May 28 j 13:29	7° ™ 22'34	4.12344 AU	asc. node	-3383 May 13 j 07:23		
direct	-3389 Jul 27 j 08:29	2°M31'56			-3383 May 22 j 20:01	15° 8	
desc. node	-3389 Sep 11 j 01:48	5° ™ 45'06		evening set	-3383 May 25 j 16:43	15° 8 37'42	
	-3389 Oct 31 j 21:13	15° ™					
evening set	-3389 Nov 28 j 17:24	21°M21'16		conjunction	-3383 Jun 08 j 07:50	18° 8 38'25	0°03'01
				minimum elong	-3383 Jun 08 j 07:49	18° 8 38'25	0°03'06
conjunction	-3389 Dec 11 j 13:20	24°M ₂ 23'22	0°-11'-7	behind sun begin	-3383 Jun 07 j 23:34		
minimum elong	-3389 Dec 11 j 13:19		0°11'13	behind sun end	-3383 Jun 08 j 16:03	18° 8 42'57	
behind sun begin	-3389 Dec 11 j 07:18		0 11 15	max. Earth dist.	-3383 Jun 08 j 15:37		6.30134 AU
behind sun end	-3389 Dec 11 j 07:18				-3383 Jun 21 j 20:34		0.50154 AC
	3		C 07515 ATT	morning rise			
max. Earth dist.	-3389 Dec 11 j 11:07		6.07515 AU		-3383 Jul 31 j 22:09	0°П	
morning rise	-3389 Dec 24 j 11:28			retrograde	-3383 Oct 22 j 01:42	9° Ⅱ 11'05	
	-3388 Jan 04 j 09:56	0° ∡ ¹		opposition	-3383 Dec 20 j 18:03	4° Ⅱ 13'45	
retrograde	-3388 May 03 j 00:26	17° ∡ 16′10		min. Earth dist.	-3383 Dec 20 j 21:04	4° Ⅱ 12'46	4.34371 AU
opposition	-3388 Jul 02 j 16:03	12° х 16′30	0°-52'-31		-3382 Jan 27 j 22:59	30° ₹ 8	
min. Earth dist.	-3388 Jul 02 j 08:22	12° ∡ 19′03	4.03703 AU	direct	-3382 Feb 20 j 02:49	29° 8 10'08	
direct	-3388 Aug 30 j 14:44	7° ҂ 23'29			-3382 Mar 15 j 13:24	Π $^{\circ}$ 0	
evening set	-3387 Jan 01 j 20:33	26° х 34′30		evening set	-3382 Jun 27 j 22:04	17°∏12'26	
evening sec	5507 van 01 j 2 0.55	20 7. 3.30		max. Earth dist.	-3382 Jul 10 j 11:08		6 37505 AU
conjunction	-3387 Jan 14 j 23:24	200 7/12/10	0°-55'-10	max. Earth dist.	3302 Jul 10 j 11.00	17 1137 00	0.57505710
minimum elong	-3387 Jan 14 j 23:21		0°55'18	conjunction	-3382 Jul 11 j 04:57	20°T06'46	0°44'59
· ·	•						
max. Earth dist.	-3387 Jan 15 j 23:45		6.01343 AU	minimum elong	-3382 Jul 11 j 04:54	20° Ⅱ 06'44	0°45'05
	-3387 Jan 16 j 05:00	0°₹		morning rise	-3382 Jul 24 j 08:47		
morning rise	-3387 Jan 28 j 05:30	2° る 51'54			-3382 Aug 26 j 20:24	0 \circ \odot	
retrograde	-3387 Jun 09 j 08:32			retrograde	-3382 Nov 21 j 21:17	10°904'04	
opposition	-3387 Aug 08 j 12:50	18° ප 07'54	-1°-46'-10	opposition	-3381 Jan 20 j 22:39	5° © 10'10	1°28'58
min. Earth dist.	-3387 Aug 07 j 12:43	18° ප 16'00	4.00801 AU	min. Earth dist.	-3381 Jan 21 j 16:57	5° © 04'13	4.39362 AU
direct	-3387 Oct 05 j 15:01	13° る 13'41		direct	-3381 Mar 24 j 06:15	0°907'01	
	-3386 Jan 27 j 12:44	0° ≈		evening set	-3381 Jul 29 j 19:19	17° © 59'30	
evening set	-3386 Feb 07 j 11:20	2° ≈ 33'38		max. Earth dist.	-3381 Aug 10 j 07:07		6 39652 AU
evening see	33001 0 0 07 j 11.20	2.00330		max. Earth dist.	3301 11 ug 10 j 07.07	20 - 30 20	0.57032710
conjunction	3386 Feb. 20 i 21:20	5°~~44'21	1° 10'00	conjunction	2381 Aug 11 i 17:13	2006/10/00	1013127
conjunction	-3386 Feb 20 j 21:29	5°≈44'21	-1°-19'00	conjunction	-3381 Aug 11 j 17:13		1°13'27
minimum elong	-3386 Feb 20 j 21:28	5° ≈ 44'21	1°19'07	minimum elong	-3381 Aug 11 j 17:10	20°5649'07	1°13'27 1°13'34
minimum elong max. Earth dist.	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29	5°≈44'21 6°≈09'51		-	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46	20°549'07 23°537'15	
minimum elong	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52	5°≈44'21 6°≈09'51 8°≈56'39	1°19'07	minimum elong morning rise	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26	20°\$49'07 23°\$37'15 0°\$€	
minimum elong max. Earth dist.	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34	5°≈44'21 6°≈09'51	1°19'07	minimum elong morning rise retrograde	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54	20°\$49'07 23°\$37'15 0°\$\Omega\$ 10°\$\Omega\$38'47	1°13'34
minimum elong max. Earth dist.	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52	5°≈44'21 6°≈09'51 8°≈56'39	1°19'07	minimum elong morning rise	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26	20°\$49'07 23°\$37'15 0°\$€	
minimum elong max. Earth dist. morning rise	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34	5°≈44'21 6°≈09'51 8°≈56'39 15°≈	1°19'07	minimum elong morning rise retrograde	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54	20°\$49'07 23°\$37'15 0°\$\Omega\$ 10°\$\Omega\$38'47	1°13'34
minimum elong max. Earth dist. morning rise retrograde	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58	1°19'07 6.01829 AU	minimum elong morning rise retrograde opposition	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44	20°S49'07 23°S37'15 0°N 10°N38'47 5°N46'57	1°13'34 1°56'42
minimum elong max. Earth dist. morning rise retrograde min. Earth dist.	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00	1°19'07 6.01829 AU 4.04737 AU	minimum elong morning rise retrograde opposition min. Earth dist.	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20	20°\$49'07 23°\$37'15 0°\$\Omega\$ 10°\$\Omega\$8'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34	1°13'34 1°56'42
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38	$5^{\circ} \approx 44'21$ $6^{\circ} \approx 09'51$ $8^{\circ} \approx 56'39$ $15^{\circ} \approx$ $29^{\circ} \approx 05'58$ $24^{\circ} \approx 11'00$ $24^{\circ} \approx 00'46$ $19^{\circ} \approx 03'34$	1°19'07 6.01829 AU 4.04737 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08	20°\$49'07 23°\$37'15 0°\$\Omega\$100^\$\Omega\$38'47 50^\$\Omega\$46'57 50^\$\Omega\$46'57 50^\$\Omega\$45'34 150^\$\Omega\$	1°13'34 1°56'42
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°¥	1°19'07 6.01829 AU 4.04737 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20	20°\$49'07 23°\$37'15 0°\$\Omega\$100'\$\Omega\$38'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$15'\$\Omega\$18'\$\Omega\$39'16	1°13'34 1°56'42 4.38690 AU
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38	$5^{\circ} \approx 44'21$ $6^{\circ} \approx 09'51$ $8^{\circ} \approx 56'39$ $15^{\circ} \approx$ $29^{\circ} \approx 05'58$ $24^{\circ} \approx 11'00$ $24^{\circ} \approx 00'46$ $19^{\circ} \approx 03'34$	1°19'07 6.01829 AU 4.04737 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08	20°\$49'07 23°\$37'15 0°\$\Omega\$100'\$\Omega\$38'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$15'\$\Omega\$18'\$\Omega\$39'16	1°13'34 1°56'42
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°¥ 8°¥14'33	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30	20°\$49'07 23°\$37'15 0°\$\Omega\$100'\$\Omega\$38'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$15'\$\Omega\$18'\$\Omega\$39'16 21°\$\Omega\$03'35	1°13'34 1°56'42 4.38690 AU 6.36091 AU
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°¥ 8°¥14'33	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30	20°\$49'07 23°\$37'15 0°\$\Omega\$100'\$\Omega\$38'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$118'\$\Omega\$39'16 21°\$\Omega\$03'35	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Mar 30 j 05:24	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0° \text{8° \text{14'33}} 11°\text{24'54} 11°\text{24'55}	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22	20°\$49'07 23°\$37'15 0°\$\Omega\$100°\$\Omega\$38'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$18°\$\Omega\$39'16 21°\$\Omega\$03'35 21°\$\Omega\$27'26 21°\$\Omega\$27'27	1°13'34 1°56'42 4.38690 AU 6.36091 AU
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist.	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Mar 30 j 05:24 -3385 Apr 01 j 04:12	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°¥ 8°¥14'33 11°¥24'54 11°¥24'55 11°¥52'05	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17	20°\$49'07 23°\$37'15 0°\$\Omega\$15 0°\$\Omega\$147 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$15 21°\$\Omega\$03'35 21°\$\Omega\$27'26 21°\$\Omega\$27'27 24°\$\Omega\$14'38	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Apr 01 j 04:12 -3385 Apr 12 j 23:28	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°¥ 8°¥14'33 11°¥24'54 11°¥24'55 11°¥52'05 14°¥35'55	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32	20°\$49'07 23°\$37'15 0°\$\Omega\$100°\$\Omega\$38'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$16 21°\$\Omega\$27'26 21°\$\Omega\$27'27 24°\$\Omega\$14'38 0°\$\Omega\$	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist.	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Mar 30 j 05:24 -3385 Apr 01 j 04:12	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0° H 8° H 14'33 11° H 24'54 11° H 24'55 11° H 52'05 14° H 35'55 0° Υ	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17	20°\$49'07 23°\$37'15 0°\$\Omega\$15 0°\$\Omega\$147 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$15 21°\$\Omega\$03'35 21°\$\Omega\$27'26 21°\$\Omega\$27'27 24°\$\Omega\$14'38	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist.	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Apr 01 j 04:12 -3385 Apr 12 j 23:28	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°¥ 8°¥14'33 11°¥24'54 11°¥24'55 11°¥52'05 14°¥35'55	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32	20°\$49'07 23°\$37'15 0°\$\Omega\$100°\$\Omega\$38'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$16 21°\$\Omega\$27'26 21°\$\Omega\$27'27 24°\$\Omega\$14'38 0°\$\Omega\$	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Mar 30 j 05:24 -3385 Apr 01 j 04:12 -3385 Apr 12 j 23:28 -3385 Jun 29 j 11:51	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0° H 8° H 14'33 11° H 24'54 11° H 24'55 11° H 52'05 14° H 35'55 0° Υ	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32 -3379 Jan 22 j 22:38	20°\$49'07 23°\$37'15 0°\$\Omega\$100^\$\Omega\$8'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$16 21°\$\Omega\$03'35 21°\$\Omega\$27'26 21°\$\Omega\$27'27 24°\$\Omega\$14'38 0°\$\Omega\$100 11°\$\Omega\$37'57	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18 1°21'22
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Mar 30 j 05:24 -3385 Apr 01 j 04:12 -3385 Apr 12 j 23:28 -3385 Jun 29 j 11:51 -3385 Aug 19 j 17:26	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°₩ 8°₩14'33 11°₩24'55 11°₩24'55 11°₩52'05 14°₩35'55 0°Ψ 3°Ψ59'09	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32 -3379 Jan 22 j 22:38 -3379 Mar 24 j 19:47	20°\$49'07 23°\$37'15 0°\$\Omega\$100^\$\Omega\$38'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$16 21°\$\Omega\$27'26 21°\$\Omega\$27'27 24°\$\Omega\$14'38 0°\$\Omega\$100 \$\Omega\$110 \$\Omega\$37'57 6°\$\Omega\$46'20	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18 1°21'22
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist.	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Apr 12 j 23:28 -3385 Apr 12 j 23:28 -3385 Aug 19 j 17:26 -3385 Oct 10 j 03:17 -3385 Oct 17 j 02:39	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0° ± 8° ± 14'33 11° ± 24'54 11° ± 24'55 11° ± 52'05 14° ± 35'55 0° ↑ 3° ↑ 59'09 30° ₹ ± 29° ± 03'26	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03 6.08783 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32 -3379 Jan 22 j 22:38 -3379 Mar 24 j 19:47 -3379 Mar 26 j 02:51 -3379 May 26 j 04:48	20°\$49'07 23°\$37'15 0°\$\Omega\$100^\text{\$\Omega}38'47\$ 5°\$\Omega\$46'57\$ 5°\$\Omega\$45'34\$ 15°\$\Omega\$16\$ 21°\$\Omega\$39'16\$ 21°\$\Omega\$27'26\$ 21°\$\Omega\$27'27\$ 24°\$\Omega\$14'38\$ 0°\$\Omega\$100 \text{\$\Omega}\$110 \text{\$\Omega}\$37'57\$ 6°\$\Omega\$46'20\$ 6°\$\Omega\$36'28\$ 1°\$\Omega\$47'26	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18 1°21'22
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Apr 12 j 23:28 -3385 Apr 12 j 23:28 -3385 Apr 12 j 23:28 -3385 Aug 19 j 17:26 -3385 Oct 10 j 03:17 -3385 Oct 17 j 02:39 -3385 Oct 18 j 03:55	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0° + 8° + 14'33 11° + 24'54 11° + 24'55 11° + 52'05 14° + 35'55 0° Υ 3° Υ 59'09 30° R + 29° + 03'26 28° + 54'49	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03 6.08783 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32 -3379 Jan 22 j 22:38 -3379 Mar 24 j 19:47 -3379 Mar 26 j 02:51 -3379 May 26 j 04:48 -3379 Sep 29 j 00:56	20°\$49'07 23°\$37'15 0°\$\Omega\$7'15 0°\$\Omega\$100°\$\Omega\$38'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$16'210'\$\Omega\$39'16 21°\$\Omega\$27'26 21°\$\Omega\$27'27 24°\$\Omega\$14'38 0°\$\Omega\$10"\$\Omega\$37'57 6°\$\Omega\$46'20 6°\$\Omega\$36'28 10"\$\Omega\$47'26 19°\$\Omega\$53'06	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18 1°21'22
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Apr 12 j 23:28 -3385 Apr 12 j 23:28 -3385 Apr 12 j 23:28 -3385 Aug 19 j 17:26 -3385 Oct 10 j 03:17 -3385 Oct 17 j 02:39 -3385 Oct 18 j 03:55 -3385 Dec 16 j 00:40	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0° \(\) 8° \(\) 14'33 11° \(\) 24'54 11° \(\) 24'55 11° \(\) 52'05 14° \(\) 35'55 0° \(\) 3° \(\) 59'09 30° \(\) \(\) 28° \(\) 54'24 23° \(\) 55'24'24	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03 6.08783 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32 -3379 Jan 22 j 22:38 -3379 Mar 24 j 19:47 -3379 Mar 26 j 02:51 -3379 May 26 j 04:48	20°\$49'07 23°\$37'15 0°\$\Omega\$100^\text{\$\Omega}38'47\$ 5°\$\Omega\$46'57\$ 5°\$\Omega\$45'34\$ 15°\$\Omega\$16\$ 21°\$\Omega\$39'16\$ 21°\$\Omega\$27'26\$ 21°\$\Omega\$27'27\$ 24°\$\Omega\$14'38\$ 0°\$\Omega\$100 \text{\$\Omega}\$110 \text{\$\Omega}\$37'57\$ 6°\$\Omega\$46'20\$ 6°\$\Omega\$36'28\$ 1°\$\Omega\$47'26	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18 1°21'22 1°51'58 4.32484 AU
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Apr 01 j 04:12 -3385 Apr 01 j 04:12 -3385 Apr 12 j 23:28 -3385 Jun 29 j 11:51 -3385 Oct 10 j 03:17 -3385 Oct 17 j 02:39 -3385 Oct 18 j 03:55 -3385 Dec 16 j 00:40 -3384 Feb 18 j 14:47	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°) 8° + 14'33 11° + 24'54 11° + 24'55 11° + 52'05 14° + 35'55 0° Υ 3° Υ 59'09 30° R + 29° + 03'26 28° + 54'49 23° + 54'24 0° Υ	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03 6.08783 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Sep 08 j 18:30 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32 -3379 Jan 22 j 22:38 -3379 Mar 24 j 19:47 -3379 Mar 26 j 02:51 -3379 May 26 j 04:48 -3379 Sep 29 j 00:56 -3379 Oct 09 j 23:12	20°\$49'07 23°\$37'15 0°\$\Omega\$15 0°\$\Omega\$10°\$\Omega\$38'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$16 21°\$\Omega\$27'26 21°\$\Omega\$27'27 24°\$\Omega\$14'38 0°\$\Omega\$10°\$\Omega\$36'28 10°\$\Omega\$46'20 60°\$\Omega\$36'28 10°\$\Omega\$47'26 190°\$\Omega\$3'06 220°\$\Omega\$21'41	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18 1°21'22 1°51'58 4.32484 AU 6.27701 AU
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Apr 12 j 23:28 -3385 Apr 12 j 23:28 -3385 Apr 12 j 23:28 -3385 Aug 19 j 17:26 -3385 Oct 10 j 03:17 -3385 Oct 17 j 02:39 -3385 Oct 18 j 03:55 -3385 Dec 16 j 00:40	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°) 8° + 14'33 11° + 24'54 11° + 24'55 11° + 52'05 14° + 35'55 0° Υ 3° Υ 59'09 30° R + 29° + 03'26 28° + 54'49 23° + 54'24 0° Υ	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03 6.08783 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32 -3379 Jan 22 j 22:38 -3379 Mar 24 j 19:47 -3379 Mar 26 j 02:51 -3379 May 26 j 04:48 -3379 Sep 29 j 00:56 -3379 Oct 09 j 23:12	20°\$49'07 23°\$37'15 0°\$\Omega\$15 0°\$\Omega\$10°\$\Omega\$38'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$16 21°\$\Omega\$27'26 21°\$\Omega\$27'27 24°\$\Omega\$14'38 0°\$\Omega\$10°\$\Omega\$37'57 6°\$\Omega\$46'20 6°\$\Omega\$36'28 1°\$\Omega\$47'26 19°\$\Omega\$53'06 22°\$\Omega\$21'41 22°\$\Omega\$43'40	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18 1°21'22 1°51'58 4.32484 AU 6.27701 AU 1°05'49
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 30 j 05:21 -3385 Mar 30 j 05:21 -3385 Apr 01 j 04:12 -3385 Apr 12 j 23:28 -3385 Jun 29 j 11:51 -3385 Aug 19 j 17:26 -3385 Oct 10 j 03:17 -3385 Oct 17 j 02:39 -3385 Oct 18 j 03:55 -3385 Dec 16 j 00:40 -3384 Feb 18 j 14:47 -3384 Apr 20 j 20:44	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03 6.08783 AU 4.13929 AU -1°-28'-17	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction min. Earth dist.	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32 -3379 Jan 22 j 22:38 -3379 Mar 24 j 19:47 -3379 Mar 26 j 02:51 -3379 May 26 j 04:48 -3379 Sep 29 j 00:56 -3379 Oct 09 j 23:12 -3379 Oct 11 j 13:52 -3379 Oct 11 j 13:55	20°\$49'07 23°\$37'15 0°\$\Omega\$7'15 0°\$\Omega\$10°\$\Omega\$8'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$16 21°\$\Omega\$27'26 21°\$\Omega\$27'27 24°\$\Omega\$14'38 0°\$\Omega\$10°\$\Omega\$37'57 6°\$\Omega\$46'20 6°\$\Omega\$36'28 1°\$\Omega\$47'26 19°\$\Omega\$53'06 22°\$\Omega\$21'41 22°\$\Omega\$43'40 22°\$\Omega\$43'41	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18 1°21'22 1°51'58 4.32484 AU 6.27701 AU
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Mar 30 j 05:24 -3385 Apr 01 j 04:12 -3385 Apr 12 j 23:28 -3385 Apr 12 j 23:28 -3385 Apr 12 j 23:28 -3385 Aug 19 j 17:26 -3385 Oct 10 j 03:17 -3385 Oct 17 j 02:39 -3385 Dec 16 j 00:40 -3384 Feb 18 j 14:47 -3384 Apr 20 j 20:44	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03 6.08783 AU 4.13929 AU -1°-28'-17	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32 -3379 Jan 22 j 22:38 -3379 Mar 24 j 19:47 -3379 Mar 26 j 02:51 -3379 May 26 j 04:48 -3379 Oct 09 j 23:12 -3379 Oct 11 j 13:52 -3379 Oct 11 j 13:55 -3379 Oct 24 j 01:55	20°\$49'07 23°\$37'15 0°\$\Omega\$7'15 0°\$\Omega\$10°\$\Omega\$8'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$16 21°\$\Omega\$27'26 21°\$\Omega\$27'27 24°\$\Omega\$14'38 0°\$\Omega\$10"\Omega\$3'57 6°\$\Omega\$46'20 6°\$\Omega\$36'28 1°\$\Omega\$47'26 19°\$\Omega\$53'06 22°\$\Omega\$21'41 22°\$\Omega\$43'40 22°\$\Omega\$43'40	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18 1°21'22 1°51'58 4.32484 AU 6.27701 AU 1°05'49
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Mar 30 j 05:24 -3385 Apr 01 j 04:12 -3385 Apr 12 j 23:28 -3385 Oct 10 j 03:17 -3385 Oct 17 j 02:39 -3385 Oct 18 j 03:55 -3385 Dec 16 j 00:40 -3384 Feb 18 j 14:47 -3384 May 04 j 15:15 -3384 May 04 j 15:15	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03 6.08783 AU 4.13929 AU -1°-28'-17	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction min. Earth dist. conjunction minimum elong morning rise	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Apr 24 j 01:20 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32 -3379 Jan 22 j 22:38 -3379 Mar 24 j 19:47 -3379 Mar 26 j 02:51 -3379 Mar 26 j 02:51 -3379 Oct 09 j 23:12 -3379 Oct 11 j 13:52 -3379 Oct 11 j 13:55 -3379 Oct 24 j 01:55 -3379 Nov 13 j 01:25	20°\$49'07 23°\$37'15 0°\$\Omega\$7'15 0°\$\Omega\$7'15 0°\$\Omega\$8'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$16 21°\$\Omega\$27'26 21°\$\Omega\$27'27 24°\$\Omega\$14'38 0°\$\Omega\$10"\Omega\$37'57 6°\$\Omega\$46'20 6°\$\Omega\$36'28 1°\$\Omega\$47'26 19°\$\Omega\$53'06 22°\$\Omega\$21'41 22°\$\Omega\$43'40 22°\$\Omega\$43'40 0°\$\Omega\$	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18 1°21'22 1°51'58 4.32484 AU 6.27701 AU 1°05'49
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist.	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 30 j 05:21 -3385 Mar 30 j 05:24 -3385 Apr 01 j 04:12 -3385 Apr 01 j 04:12 -3385 Apr 12 j 23:28 -3385 Apr 12 j 23:28 -3385 Aug 19 j 17:26 -3385 Oct 10 j 03:17 -3385 Oct 17 j 02:39 -3385 Oct 18 j 03:55 -3385 Dec 16 j 00:40 -3384 Feb 18 j 14:47 -3384 May 04 j 15:15 -3384 May 04 j 15:15 -3384 May 04 j 15:15	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03 6.08783 AU 4.13929 AU -1°-28'-17	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Aug 12 j 02:08 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32 -3379 Jan 22 j 22:38 -3379 Mar 24 j 19:47 -3379 Mar 26 j 02:51 -3379 Mar 26 j 02:51 -3379 Oct 09 j 23:12 -3379 Oct 11 j 13:52 -3379 Oct 11 j 13:55 -3379 Oct 24 j 01:55 -3379 Nov 13 j 01:25 -3378 Feb 25 j 13:05	20°\$49'07 23°\$37'15 0°\$\Omega\$7'15 0°\$\Omega\$10°\$\Omega\$8'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$16 21°\$\Omega\$27'26 21°\$\Omega\$27'27 24°\$\Omega\$14'38 0°\$\Omega\$10"\Omega\$3'57 6°\$\Omega\$46'20 6°\$\Omega\$36'28 1°\$\Omega\$47'26 19°\$\Omega\$53'06 22°\$\Omega\$21'41 22°\$\Omega\$43'40 22°\$\Omega\$43'40	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18 1°21'22 1°51'58 4.32484 AU 6.27701 AU 1°05'49
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Mar 30 j 05:24 -3385 Apr 01 j 04:12 -3385 Apr 01 j 04:12 -3385 Apr 12 j 23:28 -3385 Jun 29 j 11:51 -3385 Aug 19 j 17:26 -3385 Oct 10 j 03:17 -3385 Oct 17 j 02:39 -3385 Oct 18 j 03:55 -3385 Dec 16 j 00:40 -3384 Feb 18 j 14:47 -3384 May 04 j 15:15	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°¥ 8°¥14'33 11°¥24'55 11°¥24'55 11°¥52'05 14°¥35'55 0°Υ 3°Υ59'09 30°R¥ 29°¥03'26 28°¥54'49 23°¥54'24 0°Υ 12°Υ42'46 15°Υ49'24 15°Υ49'24 15°Υ49'24	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03 6.08783 AU 4.13929 AU -1°-28'-17	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Aug 12 j 02:08 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32 -3379 Jan 22 j 22:38 -3379 Mar 24 j 19:47 -3379 Mar 26 j 02:51 -3379 Mar 26 j 02:51 -3379 Oct 09 j 23:12 -3379 Oct 11 j 13:52 -3379 Oct 11 j 13:55 -3379 Nov 13 j 01:25 -3378 Feb 25 j 13:05 -3378 Apr 27 j 16:14	20°\$49'07 23°\$37'15 0°\$\Omega\$7'15 0°\$\Omega\$7'15 0°\$\Omega\$8'47 5°\$\Omega\$46'57 5°\$\Omega\$38'05 0°\$\Omega\$45'34 15°\$\Omega\$16 21°\$\Omega\$27'26 21°\$\Omega\$27'27 24°\$\Omega\$14'38 0°\$\Omega\$10"\Omega\$37'57 6°\$\Omega\$46'20 6°\$\Omega\$36'28 1°\$\Omega\$47'26 19°\$\Omega\$53'06 22°\$\Omega\$21'41 22°\$\Omega\$43'40 22°\$\Omega\$43'40 0°\$\Omega\$	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18 1°21'22 1°51'58 4.32484 AU 6.27701 AU 1°05'49
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist.	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 30 j 05:21 -3385 Mar 30 j 05:24 -3385 Apr 01 j 04:12 -3385 Apr 01 j 04:12 -3385 Apr 12 j 23:28 -3385 Apr 12 j 23:28 -3385 Aug 19 j 17:26 -3385 Oct 10 j 03:17 -3385 Oct 17 j 02:39 -3385 Oct 18 j 03:55 -3385 Dec 16 j 00:40 -3384 Feb 18 j 14:47 -3384 May 04 j 15:15 -3384 May 04 j 15:15 -3384 May 04 j 15:15	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03 6.08783 AU 4.13929 AU -1°-28'-17	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Aug 12 j 02:08 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32 -3379 Jan 22 j 22:38 -3379 Mar 24 j 19:47 -3379 Mar 26 j 02:51 -3379 Mar 26 j 02:51 -3379 Oct 09 j 23:12 -3379 Oct 11 j 13:52 -3379 Oct 11 j 13:55 -3379 Oct 24 j 01:55 -3379 Nov 13 j 01:25 -3378 Feb 25 j 13:05	20°\$49'07 23°\$37'15 0°\$\Omega\$7'15 0°\$\Omega\$7'15 0°\$\Omega\$10°\$\Omega\$8'47 5°\$\Omega\$46'57 5°\$\Omega\$39'16 21°\$\Omega\$27'26 21°\$\Omega\$27'27 24°\$\Omega\$14'38 0°\$\Omega\$10°\$\Omega\$3'57 6°\$\Omega\$46'20 6°\$\Omega\$36'28 1°\$\Omega\$47'26 19°\$\Omega\$53'06 22°\$\Omega\$21'41 22°\$\Omega\$43'40 22°\$\Omega\$43'40 0°\$\Omega\$13°\$\Omega\$40'12	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18 1°21'22 1°51'58 4.32484 AU 6.27701 AU 1°05'49 1°05'50
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist.	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 16 j 12:50 -3385 Mar 30 j 05:21 -3385 Mar 30 j 05:24 -3385 Apr 01 j 04:12 -3385 Apr 01 j 04:12 -3385 Apr 12 j 23:28 -3385 Jun 29 j 11:51 -3385 Aug 19 j 17:26 -3385 Oct 10 j 03:17 -3385 Oct 17 j 02:39 -3385 Oct 18 j 03:55 -3385 Dec 16 j 00:40 -3384 Feb 18 j 14:47 -3384 May 04 j 15:15	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°¥ 8°¥14'33 11°¥24'55 11°¥24'55 11°¥52'05 14°¥35'55 0°Υ 3°Υ59'09 30°R¥ 29°¥03'26 28°¥54'49 23°¥54'24 0°Υ 12°Υ42'46 15°Υ49'24 15°Υ49'24 15°Υ49'24	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03 6.08783 AU 4.13929 AU -1°-28'-17	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Aug 12 j 02:08 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32 -3379 Jan 22 j 22:38 -3379 Mar 24 j 19:47 -3379 Mar 26 j 02:51 -3379 Mar 26 j 02:51 -3379 Oct 09 j 23:12 -3379 Oct 11 j 13:52 -3379 Oct 11 j 13:55 -3379 Nov 13 j 01:25 -3378 Feb 25 j 13:05 -3378 Apr 27 j 16:14	20°\$49'07 23°\$37'15 0°\$\Omega\$7'15 0°\$\Omega\$7'15 0°\$\Omega\$8'47 5°\$\Omega\$46'57 5°\$\Omega\$39'16 21°\$\Omega\$39'16 21°\$\Omega\$27'27 24°\$\Omega\$14'38 0°\$\Omega\$10'\Omega\$3'57 6°\$\Omega\$46'20 6°\$\Omega\$36'28 1°\$\Omega\$47'26 19°\$\Omega\$3'06 22°\$\Omega\$21'41 22°\$\Omega\$43'40 22°\$\Omega\$43'40 0°\$\Omega\$13°\$\Omega\$40'12 8°\$\Omega\$47'01	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18 1°21'22 1°51'58 4.32484 AU 6.27701 AU 1°05'49 1°05'50
minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. opposition direct	-3386 Feb 20 j 21:28 -3386 Feb 22 j 16:29 -3386 Mar 06 j 10:52 -3386 Apr 01 j 21:34 -3386 Jul 15 j 21:44 -3386 Sep 12 j 08:55 -3386 Sep 13 j 14:57 -3386 Nov 10 j 17:38 -3385 Feb 07 j 09:07 -3385 Mar 30 j 05:21 -3385 Mar 30 j 05:24 -3385 Apr 01 j 04:12 -3385 Apr 12 j 23:28 -3385 Apr 12 j 23:28 -3385 Jun 29 j 11:51 -3385 Apr 12 j 23:28 -3385 Oct 10 j 03:17 -3385 Oct 17 j 02:39 -3385 Oct 18 j 03:55 -3385 Dec 16 j 00:40 -3384 Feb 18 j 14:47 -3384 Apr 20 j 20:44 -3384 May 04 j 15:15 -3384 May 04 j 15:15 -3384 May 05 j 21:59 -3384 May 18 j 09:38 -3384 Jul 10 j 19:19	5°≈44'21 6°≈09'51 8°≈56'39 15°≈ 29°≈05'58 24°≈11'00 24°≈00'46 19°≈03'34 0°¥ 8°¥14'33 11°¥24'54 11°¥24'55 11°¥52'05 14°¥35'55 0°Y 3°Y59'09 30°R¥ 29°¥03'26 28°¥54'49 23°¥54'24 0°Y 12°Y42'46 15°Y49'24 15°Y49'24 15°Y49'24 16°Y06'47 18°Y55'42 0° ४	1°19'07 6.01829 AU 4.04737 AU -1°-59'-9 -1°-13'00 1°13'03 6.08783 AU 4.13929 AU -1°-28'-17	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition minimum elong morning rise	-3381 Aug 11 j 17:10 -3381 Aug 24 j 11:46 -3381 Sep 23 j 17:26 -3381 Dec 22 j 20:54 -3380 Feb 21 j 09:44 -3380 Feb 22 j 13:26 -3380 Aug 12 j 02:08 -3380 Aug 12 j 02:08 -3380 Aug 28 j 22:20 -3380 Sep 08 j 18:30 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 10 j 13:22 -3380 Sep 23 j 02:17 -3380 Oct 19 j 20:32 -3379 Jan 22 j 22:38 -3379 Mar 24 j 19:47 -3379 Mar 26 j 02:51 -3379 Mar 26 j 02:51 -3379 Oct 09 j 23:12 -3379 Oct 09 j 23:12 -3379 Oct 11 j 13:55 -3379 Oct 24 j 01:55 -3379 Nov 13 j 01:25 -3378 Feb 25 j 13:05 -3378 Apr 27 j 16:14 -3378 Apr 28 j 15:25	20°\$49'07 23°\$37'15 0°\$\Omega\$7'15 0°\$\Omega\$7'15 0°\$\Omega\$8'47 5°\$\Omega\$46'57 5°\$\Omega\$39'16 21°\$\Omega\$39'16 21°\$\Omega\$27'27 24°\$\Omega\$14'38 0°\$\Omega\$10'\Omega\$3'57 6°\$\Omega\$46'20 6°\$\Omega\$36'28 1°\$\Omega\$47'26 19°\$\Omega\$3'06 22°\$\Omega\$21'41 22°\$\Omega\$43'40 22°\$\Omega\$43'40 0°\$\Omega\$13°\$\Omega\$40'12 8°\$\Omega\$47'01 8°\$\Omega\$3'37	1°13'34 1°56'42 4.38690 AU 6.36091 AU 1°21'18 1°21'22 1°51'58 4.32484 AU 6.27701 AU 1°05'49 1°05'50

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3378 in astronomical counting style is the year 3379 BCE in historical counting style. -3378 Nov 12 j 14:20 25°**2**13'17 0°29'38 max. Earth dist. $-3372 \text{ May } 10 \text{ j } 17:48 \quad 20^{\circ} \Upsilon 50'34 \quad 6.20645 \text{ AU}$ conjunction -3378 Nov 12 j 14:22 25°**2**13'19 -3372 May 23 j 06:49 23°**Υ**39'54 minimum elong 0°29'34 morning rise -3378 Nov 11 j 15:02 24°**2**59'44 6.16792 AU -3372 Jun 21 j 11:30 max. Earth dist. 0°X -3378 Nov 25 j 06:23 28°**♀**10'02 -3372 Sep 25 j 02:18 11°857'06 morning rise retrograde -3372 Nov 23 j 12:48 -3378 Dec 03 j 05:35 6°**8**56'23 0°M opposition 0°-20'-4 -3377 Feb 22 j 21:59 15°**M** L -3372 Nov 23 j 02:07 min. Earth dist. 6°**8**59'58 4.26117 AU -3371 Jan 22 j 19:34 retrograde -3377 Apr 02 j 03:12 17°ML11'54 direct 1°**8**53'29 -3377 May 10 j 13:32 15°RML asc. node -3371 Mar 23 j 07:08 6°**8**55'36 opposition -3377 Jun 02 j 02:42 12°ML15'37 0°09'07 -3371 May 06 j 01:10 15°**8** min. Earth dist. -3377 Jun 02 j 11:30 12°M 12'46 4.11374 AU evening set -3371 May 30 j 10:21 20°**8**13'47 desc. node -3377 Jul 22 j 18:11 7°M30'35 -3371 Jun 13 j 00:30 23°**8**13'44 0°09'18 direct -3377 Aug 01 j 05:02 7°M21'51 conjunction -3371 Jun 13 j 00:29 23°**8**13'44 -3377 Oct 12 j 21:00 15°M minimum elong 0°09'24 -3371 Jun 12 j 17:38 23°**8**09'57 evening set -3377 Dec 03 j 10:20 26°M12'53 behind sun begin behind sun end -3371 Jun 13 j 07:20 23°**8**17'30 conjunction -3377 Dec 16 j 07:04 29°ML15'40 0°-17'-43 max. Earth dist. -3371 Jun 13 j 04:31 23°**8**15'57 6.31128 AU minimum elong -3377 Dec 16 j 07:02 29°M 15'39 0°17'50 morning rise -3371 Jun 26 j 12:18 26°**8**12'21 max. Earth dist. -3377 Dec 16 j 07:47 29°M 16'06 6.06739 AU -3371 Jul 14 j 01:37 Π °0 -3377 Dec 19 j 09:46 0°**∡**¹ retrograde -3371 Oct 26 j 09:41 13°**Д**40'59 morning rise -3377 Dec 29 j 06:13 2°**∡**19'55 opposition -3371 Dec 25 j 03:18 8°**Ⅱ**44'09 0°44'33 retrograde -3376 May 08 j 01:15 22° ₹ 13'43 min. Earth dist. -3371 Dec 25 j 08:06 8°**Ⅱ**42'33 4.35182 AU opposition -3376 Jul 07 i 16:39 17° **₹** 13'33 -1°-1'-29 direct -3370 Feb 24 i 15:39 3°**Ⅱ**40′29 min. Earth dist. -3376 Jul 07 i 06:09 17° ₹ 17'01 4.03219 AU evening set -3370 Jul 02 j 11:09 21°**Ⅲ**41'16 direct -3376 Sep 04 i 11:08 12° ₹720'30 -3376 Dec 31 j 05:14 0°ರ conjunction -3370 Jul 15 j 16:52 24°**Ⅲ**34'51 0°49'59 -3375 Jan 06 j 18:10 1°る32'44 -3370 Jul 15 j 16:49 24°**Ⅲ**34'49 0°50'06 minimum elong evening set -3370 Jul 14 j 21:58 24°**Ⅲ**24'29 6.38066 AU max Earth dist -3375 Jan 19 j 21:52 4°る41'00 0°-59'-55 -3370 Jul 28 j 19:13 27°**Ⅲ**26'46 conjunction morning rise -3375 Jan 19 j 21:49 4°る40'58 1°00'03 -3370 Aug 09 j 15:31 0.00 minimum elong -3375 Jan 21 j 00:05 4°중56'40 6.01166 AU -3370 Nov 26 j 04:38 14°529'26 max. Earth dist. retrograde 7°**る**51'04 -3375 Feb 02 j 04:57 -3369 Jan 25 j 07:56 9°\$35'55 1°34'35 morning rise opposition -3375 Jun 14 j 09:01 28°중11'10 -3369 Jan 26 j 03:20 9°\$29'38 retrograde min. Earth dist. 4.39638 AU -3375 Aug 12 j 10:58 23°중15'53 4.00965 AU direct -3369 Mar 28 j 17:32 4°532'59 min. Earth dist. -3375 Aug 13 j 11:50 23°₹07'31 -1°-50'-36 -3369 Aug 03 j 04:52 22°524'40 opposition evening set -3375 Oct 10 j 13:43 18°정12'56 -3369 Aug 14 j 12:32 24°553'32 6.39576 AU direct max. Earth dist. -3374 Jan 10 j 07:15 0°≈ -3369 Aug 16 j 01:27 25°5013'50 1°15'53 evening set -3374 Feb 12 j 11:53 7°≈32'57 conjunction minimum elong -3369 Aug 16 j 01:24 25°513'49 1°16'00 conjunction -3374 Feb 25 j 23:09 10°≈43'55 -1°-19'-58 morning rise -3369 Aug 28 j 19:05 28°501'33 minimum elong -3374 Feb 25 j 23:08 10°≈43'55 1°20'05 -3369 Sep 06 j 21:17 0°**Ω** max. Earth dist. -3374 Feb 27 j 20:15 11°≈10'36 6.02319 AU -3369 Dec 20 j 14:13 15°**Ω** -3374 Mar 11 j 13:15 13°≈56'19 -3369 Dec 27 j 07:19 $15^{\circ}\Omega$ 04'18 morning rise retrograde -3374 Mar 16 j 02:11 15°≈ -3368 Jan 03 j 00:30 15°R**Ω** -3374 May 30 j 04:06 -3368 Feb 25 j 21:02 $10^{\circ}\Omega$ 12'34 $1^{\circ}58'04$ opposition -3374 Jul 20 j 19:15 4°**)**€01'56 -3368 Feb 27 j 02:07 $10^{\circ}\Omega$ 03'16 4.38255 AU retrograde min. Earth dist. -3374 Sep 10 j 15:21 30°R≈ -3368 Apr 28 i 13:26 5° Ω11'24 direct -3374 Sep 17 j 04:44 29°≈06'47 4.05516 AU min. Earth dist. -3368 Jul 25 i 16:24 $15^{\circ}\Omega$ -3374 Sep 18 i 10:08 28°≈56'46 -1°-57'-19 opposition evening set $-3368 \text{ Sep } 02 \text{ j } 06:12 \quad 23^{\circ}\Omega 05'41$ direct -3374 Nov 15 j 13:34 23°≈59'11 max. Earth dist. -3368 Sep 13 j 02:43 25° Ω 30'27 6.35307 AU -3373 Jan 17 i 14:33 0°**∀** -3373 Mar 21 j 13:28 13°¥08'50 conjunction -3368 Sep 14 j 20:47 $25^{\circ}\Omega 53'55$ $1^{\circ}20'31$ evening set $-3368 \text{ Sep } 14 \text{ j } 20:48 \quad 25^{\circ} \Omega 53'55$ 1°20'35 minimum elong -3373 Apr 04 j 06:27 16°¥ 19'00 -1°-9'-55 -3368 Sep 27 j 09:06 28°**Ω**41'13 conjunction morning rise -3368 Oct 03 j 07:45 0° m minimum elong -3373 Apr 04 j 06:31 16° **¥** 19'02 1°09'59 max. Earth dist. -3373 Apr 06 j 02:37 16°**)** 44'34 6.09778 AU retrograde -3367 Jan 27 j 11:15 16° Mp 08'48 morning rise -3373 Apr 18 j 01:10 19° **¥** 29'48 opposition -3367 Mar 29 j 10:32 11° m 17'04 1°48'31 $0^{\circ}\Upsilon$ -3373 Jun 05 j 22:54 min. Earth dist. -3367 Mar 30 j 16:33 11° m 07'32 4.31384 AU -3373 Aug 24 j 08:02 8°Y46'39 -3367 May 30 j 16:23 6° Mp 18′34 retrograde direct -3373 Oct 22 j 18:43 3°**Y**42'38 -1°-21'-22 -3367 Oct 03 j 10:07 24° m 26'15 opposition evening set -3373 Oct 21 j 18:31 3°**Υ**50'53 4.15039 AU -3367 Oct 14 j 09:06 26° m 55'45 6.26366 AU min. Earth dist. max. Earth dist. -3373 Nov 22 j 15:52 30°R, ★ direct -3373 Dec 20 j 18:17 28° ★41'52 conjunction -3367 Oct 15 j 22:58 27° m 17'21 1°01'51 -3372 Jan 18 j 05:20 0° γ minimum elong -3367 Oct 15 j 23:01 27° mp 17'23 1°01'52 evening set -3372 Apr 25 j 18:23 17°**Y**28'07 -3367 Oct 27 j 20:34 0∘**⊽** morning rise -3367 Oct 28 j 11:22 0°**₽**08'23

retrograde

opposition

-3366 Mar 02 j 10:21 18°**£**21'30

-3366 May 02 j 12:13 13°**£**27'58 1°05'47

-3372 May 09 j 12:56 20°**Y**34'16 0°-35'-31

-3372 May 09 j 12:59 20°**Y**34'18 0°35'29

conjunction

minimum elong

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 4

•	omena of Jupiter fr		•	* *			ige 4
	nical year style is used: The	-					-
min. Earth dist.	-3366 May 03 j 10:47		4.20860 AU	evening set	-3360 Apr 30 j 18:05	22°°\1/3/	
direct	-3366 Jul 02 j 18:19	8° £ 32'15			226036 14:12.15	250002051	00 201 20
evening set	-3366 Nov 04 j 12:09			conjunction	-3360 May 14 j 12:17		0°-29'-30
max. Earth dist.	-3366 Nov 16 j 07:27	29° 22 46'42	6.15242 AU	minimum elong	-3360 May 14 j 12:20		0°29'28
				max. Earth dist.	-3360 May 15 j 14:47		6.22506 AU
conjunction	-3366 Nov 17 j 04:00			morning rise	-3360 May 28 j 05:38		
minimum elong	-3366 Nov 17 j 04:02		0°23'21		-3360 Jun 04 j 04:34	0°8	
	-3366 Nov 17 j 06:13	0°M			-3360 Aug 28 j 21:07		
morning rise	-3366 Nov 29 j 20:54	2°M56'29		retrograde	-3360 Sep 29 j 11:50		
_	-3365 Jan 25 j 17:39				-3360 Oct 30 j 22:15		
retrograde	-3365 Apr 07 j 03:55	22°M06'18		opposition	-3360 Nov 28 j 00:25		0°-10'-47
desc. node	-3365 Jun 01 j 23:15	17°M49'35	00001.55	min. Earth dist.	-3360 Nov 27 j 14:44		4.27985 AU
opposition	-3365 Jun 07 j 03:22	17°M09'31	0°00'-55	direct	-3359 Jan 27 j 11:23	6° 8 32'05	
min. Earth dist.	-3365 Jun 07 j 09:15	17°M07'36	4.09917 AU	asc. node	-3359 Jan 31 j 12:46	6° 8 33'40	
t' .	-3365 Jun 24 j 09:36	15°RM			-3359 Apr 17 j 09:52		
direct	-3365 Aug 05 j 23:51	12°M15'58		evening set	-3359 Jun 04 j 02:57	24° 8 47'27	
	-3365 Sep 16 j 18:13	15°M			2250 1 15:16:00	2701446112	001.510.6
	-3365 Dec 03 j 05:32	0° √ ¹		conjunction	-3359 Jun 17 j 16:00		0°15'26
evening set	-3365 Dec 08 j 05:47	1° ∡ 10'44		minimum elong	-3359 Jun 17 j 15:59		0°15'32
				behind sun begin	-3359 Jun 17 j 14:25		
conjunction	-3365 Dec 21 j 03:21	4° ₹ 14'26	0°-24'-19	behind sun end	-3359 Jun 17 j 17:32		
minimum elong	-3365 Dec 21 j 03:19	4° ∡ 14'25	0°24'27	max. Earth dist.	-3359 Jun 17 j 17:03		6.32868 AU
max. Earth dist.	-3365 Dec 21 j 06:58	4° ∡ 16'35	6.05500 AU		-3359 Jun 27 j 18:58	0°II	
morning rise	-3364 Jan 03 j 03:38	7° ∡ 19'41		morning rise	-3359 Jul 01 j 02:29	0° Ⅱ 43'34	
retrograde	-3364 May 13 j 06:24			retrograde	-3359 Oct 30 j 16:20		
opposition	-3364 Jul 12 j 20:00			opposition	-3359 Dec 29 j 11:02		0°52'33
min. Earth dist.	-3364 Jul 12 j 07:26	22° ₹ 23'11	4.02321 AU	min. Earth dist.	-3359 Dec 29 j 18:23		4.36654 AU
direct	-3364 Sep 09 j 11:50			direct	-3358 Mar 01 j 04:12	8° Ⅲ 05'21	
_	-3364 Dec 13 j 20:24	0° ろ		evening set	-3358 Jul 06 j 21:03		
evening set	-3363 Jan 11 j 19:51	6° る 40'54		max. Earth dist.	-3358 Jul 19 j 02:32	28° ∐ 42'19	6.39128 AU
conjunction	-3363 Jan 25 j 00:47	9° ප 49'53	-1°-4'-22	conjunction	-3358 Jul 20 j 01:22	28°∏54'48	0°54'32
minimum elong	-3363 Jan 25 j 00:44	9° ප 49'51	1°04'30	minimum elong	-3358 Jul 20 j 01:19		0°54'39
max. Earth dist.	-3363 Jan 26 j 07:21	10°₹08'08	6.00694 AU	minimum crong	-3358 Jul 25 j 00:32	0°ඉ	0 3 1 3 7
morning rise	-3363 Feb 07 j 08:53	13°පි00'36	0.00074710	morning rise	-3358 Aug 02 j 02:24	1°9645'44	
morning rise	-3363 May 03 j 12:18	0°≈		retrograde	-3358 Nov 30 j 08:42		
retrograde	-3363 Jun 19 j 14:50	3°≈22'04		opposition	-3357 Jan 29 j 13:58		1°39'24
renograde	-3363 Aug 05 j 18:44			min. Earth dist.	-3357 Jan 30 j 11:16		4.40239 AU
opposition	-3363 Aug 18 j 14:41		-1°-54'-21	direct	-3357 Apr 02 j 01:36	8°549'13	0257110
min. Earth dist.	-3363 Aug 17 j 12:44			evening set	-3357 Aug 07 j 10:12		
direct	-3363 Oct 15 j 14:59			max. Earth dist.	-3357 Aug 18 j 15:52		6.39654 AU
	-3363 Dec 20 j 11:12	0° ≈					
evening set	-3362 Feb 17 j 17:20	12° ≈ 43'38		conjunction	-3357 Aug 20 j 05:48	29° © 27'57	1°17'48
844	-3362 Feb 27 j 08:42			minimum elong	-3357 Aug 20 j 05:46		1°17'54
					-3357 Aug 22 j 16:02	0°N	
conjunction	-3362 Mar 03 j 05:26	15°≈54'46	-1°-20'-22	morning rise	-3357 Sep 01 j 22:17	2° Ω 15'12	
minimum elong	-3362 Mar 03 j 05:26	15°≈54'46	1°20'27	5 5	-3357 Nov 07 j 02:30		
max. Earth dist.	-3362 Mar 05 j 02:38	16° ≈ 21'28	6.02849 AU	retrograde	•		
morning rise	-3362 Mar 16 j 20:37	19° ≈ 07'20		-	-3356 Feb 25 j 22:02		
-	-3362 May 05 j 13:06	0°)		opposition	-3356 Mar 01 j 04:22		1°58'41
retrograde	-3362 Jul 25 j 18:02	9° ₩ 08'25		min. Earth dist.	-3356 Mar 02 j 10:39	14° Ω 17'47	4.37798 AU
min. Earth dist.	-3362 Sep 22 j 02:49	4°) 13′34	4.06509 AU	direct	-3356 May 02 j 20:21	9° Ω 26'34	
opposition	-3362 Sep 23 j 09:04	4°) €03'14	-1°-54'-33		-3356 Jul 05 j 21:24	15° Ω	
••	-3362 Oct 28 j 10:07	30°R≈		evening set	-3356 Sep 06 j 10:08		
direct	-3362 Nov 20 j 13:51	29° ≈ 05'13		max. Earth dist.	-3356 Sep 17 j 03:41	29° Ω 45'18	6.34325 AU
	-3362 Dec 13 j 22:38	0°)			-3356 Sep 18 j 05:58	0° m	
evening set	-3361 Mar 26 j 18:00	18°) 12′25			1 0		
				conjunction	-3356 Sep 19 j 00:06	0° m 10′08	1°19'19
conjunction	-3361 Apr 09 j 11:38	21°) 22′13		minimum elong	-3356 Sep 19 j 00:07	0° Mp 10′09	1°19'23
minimum elong	-3361 Apr 09 j 11:42	21°) 22′16		morning rise	-3356 Oct 01 j 12:19	2° Mp 57'46	
max. Earth dist.	-3361 Apr 11 j 07:48	21°) (47′42	6.11194 AU	retrograde	-3355 Jan 31 j 23:28	20° m 30'47	
morning rise	-3361 Apr 23 j 06:27	24°) 32′27		opposition	-3355 Apr 02 j 22:22	15° m 38'55	1°44'35
	-3361 May 17 j 17:13	0 ° Υ		min. Earth dist.	-3355 Apr 04 j 05:03	15° m 29'09	4.29916 AU
retrograde	-3361 Aug 29 j 02:34	13° Ƴ 40'44		direct	-3355 Jun 04 j 01:45	10° Mp 40° 42	
opposition	-3361 Oct 27 j 12:05	8° Ƴ 37'05	-1°-13'-44	evening set	-3355 Oct 07 j 16:15	28° m 51'57	
min. Earth dist.	-3361 Oct 26 j 13:32	8° Ƴ 44'45	4.16735 AU		-3355 Oct 12 j 15:47	0∘ ⊽	
direct	-3361 Dec 25 j 16:44	3° Ƴ 35'58		max. Earth dist.	-3355 Oct 18 j 17:18	1° ≏ 23'11	6.24543 AU

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3355 in astronomical counting style is the year 3356 BCE in historical counting style. -3355 Oct 20 i 05:30 1°**2**43'55 0°57'39 min. Earth dist. $-3349 \text{ Oct } 31 \text{ j } 07:30 \quad 13^{\circ} \Upsilon 40'04 \quad 4.18548 \text{ AU}$ conjunction -3355 Oct 20 j 05:33 -3349 Nov 01 j 05:32 13°**Υ**'32'35 -1°-5'-32 minimum elong 1°**£**43'57 0°57'38 opposition -3355 Nov 01 j 18:13 -3349 Dec 30 j 13:35 8°**Ƴ**31'04 4°**£**35'54 direct morning rise -3354 Mar 07 j 04:37 22°**♀**57'57 -3348 May 05 j 17:44 27°**℃**07'56 retrograde evening set -3354 May 07 j 06:19 18°**♀**04'06 0°57'48 -3348 May 18 j 13:41 opposition 0° 8 -3354 May 08 j 03:17 17°**♀**57'24 min. Earth dist. 4.18803 AU -3354 Jul 07 j 06:50 13°**♀**08'47 0°812'10 0°-23'-14 direct conjunction -3348 May 19 j 11:25 0° M -3348 May 19 j 11:27 -3354 Nov 01 j 13:10 minimum elong 0°**8**12'11 0°23'12 -3354 Nov 09 j 00:39 -3348 May 20 j 09:54 evening set 1°M43'49 max. Earth dist. 0°**8**24'46 6.24331 AU morning rise -3348 Jun 02 j 04:04 3°**8**15'39 conjunction -3354 Nov 21 j 17:08 4°M42'01 0°17'07 -3348 Jul 30 j 03:21 15°**8** -3354 Nov 21 j 17:10 -3348 Oct 04 j 00:12 21°815'14 minimum elong 4°M42'01 0°17'03 retrograde -3348 Dec 02 j 12:39 16°**8**15'32 max. Earth dist. -3354 Nov 20 j 22:20 4°M30'59 6.13133 AU opposition 0°-1'-21 morning rise -3354 Dec 04 j 11:08 7°**ጤ**41'10 min. Earth dist. -3348 Dec 02 j 06:11 16°**8**17'42 4.29643 AU -3353 Jan 06 j 00:18 15°M₁ asc. node -3348 Dec 10 j 17:00 15°**8**10'18 retrograde -3353 Apr 12 j 06:43 27°ML01'19 -3348 Dec 12 j 00:42 15°R8 desc. node -3353 Apr 13 j 01:59 27°ML01'16 direct -3347 Feb 01 j 05:16 11°**8**12'13 opposition -3353 Jun 12 j 04:11 22°ML04'01 0°-10'-55 -3347 Mar 24 j 12:26 15°**8** min. Earth dist. -3353 Jun 12 j 07:42 22°ML02'52 4.07928 AU evening set -3347 Jun 08 j 20:06 29°**8**23'36 direct -3353 Aug 10 j 20:00 17° ML10'38 -3347 Jun 11 j 14:42 $0^{\circ}\Pi$ -3353 Nov 16 j 05:27 0°**∡**¹ evening set -3353 Dec 13 i 02:27 6°**х** 11′22 conjunction -3347 Jun 22 j 08:07 2°**Ⅲ**21'21 0°21'35 minimum elong -3347 Jun 22 i 08:05 2°**Ⅲ**21′20 0°21'41 conjunction -3353 Dec 26 i 01:17 9°**х** 16'20 0°-30'-44 max. Earth dist. -3347 Jun 22 i 05:55 2°**Ⅱ**20′09 6.34224 AU minimum elong -3353 Dec 26 j 01:15 9°**х** 16′18 0°30'52 morning rise -3347 Jul 05 j 17:17 5°**Ⅱ**17'37 -3353 Dec 26 j 10:06 9°**x**¹21'35 6.03827 AU -3347 Nov 03 j 23:17 22°**Ⅲ**34'07 max. Earth dist. retrograde -3352 Jan 08 j 02:42 12° ₹22'52 opposition -3346 Jan 02 j 20:11 17°**Д**38'17 1°00'28 morning rise -3352 Apr 08 j 00:54 -3346 Jan 03 j 05:09 17°**Д**35'20 4.37640 AU 0°る min. Earth dist. -3352 May 18 j 15:10 2°る30'40 -3346 Mar 05 j 15:40 12°**Ⅲ**34'38 direct retrograde -3352 Jun 28 j 05:32 30°R*X* 7 -3346 Jul 09 j 02:38 0ಂತಾ -3352 Jul 17 j 10:16 27°**х** 34'25 4.01165 AU -3346 Jul 11 j 09:02 min. Earth dist. evening set 0°9529'27 -1°-18'-33 -3352 Jul 18 j 01:15 27°**尽** 29'27 -3346 Jul 23 j 10:15 max. Earth dist. 3°907'10 6.39662 AU opposition direct -3352 Sep 14 j 13:04 22° ₹ 36'12 -3352 Nov 23 j 15:38 0°る -3346 Jul 24 j 11:59 3°921'15 conjunction 0°58'57 -3351 Jan 17 j 00:21 11°る55'06 -3346 Jul 24 j 11:56 evening set minimum elong 3°**©**21'13 0°59'04 -3346 Aug 06 j 11:40 morning rise 6°∽11'25 -3351 Jan 30 j 06:16 15°**⋜**04'47 -1°-8'-19 -3346 Dec 04 j 17:36 23°509'43 conjunction retrograde minimum elong -3351 Jan 30 j 06:13 15°**⋜**04'46 1°08'28 opposition -3345 Feb 02 j 23:30 18°516'52 1°43'57 max. Earth dist. -3351 Jan 31 j 15:23 15°**ਰ**24'35 6.00131 AU min. Earth dist. -3345 Feb 03 j 23:14 18°909'13 4.40304 AU morning rise -3351 Feb 12 j 15:42 18°**♂**16'17 direct -3345 Apr 06 j 13:18 13°5014'14 -3351 Apr 07 j 00:27 -3345 Aug 06 j 21:08 $0^{\circ}\Omega$ -3351 Jun 24 j 20:05 8°≈38'57 -3345 Aug 11 j 19:04 1°**Ω**04'11 retrograde evening set -3351 Aug 23 j 19:22 3°≈34'34 -1°-57'-10 max. Earth dist. -3345 Aug 22 j 20:56 3°**Ω**30′10 6.39218 AU opposition min. Earth dist. -3351 Aug 22 j 14:48 3°≈44'15 4.01115 AU -3351 Sep 22 j 12:51 30°R ₹ -3345 Aug 24 j 13:37 3°**Ω**52'36 1°19'23 conjunction -3351 Oct 20 j 18:00 28°る39'18 -3345 Aug 24 i 13:36 direct minimum elong 3°**£**52'35 1°19'29 6°**Ω**39'41 -3351 Nov 18 i 01:04 0°**≈** morning rise -3345 Sep 06 i 05:20 -3350 Feb 10 i 03:41 15°≈ -3345 Oct 16 i 08:51 15° Ω $-3344 \text{ Jan } 05 \text{ j } 00:15 \quad 23^{\circ} \Omega 46'19$ -3350 Feb 23 j 01:07 17°≈59'38 retrograde evening set $-3344 \text{ Mar } 05 \text{ i } 16:55 \quad 18^{\circ} \Omega 54'45 \quad 1^{\circ} 58'46$ opposition -3350 Mar 08 j 14:19 21°≈10'53 -1°-20'-5 min. Earth dist. -3344 Mar 06 j 23:48 18° **Ω**44'54 4.36909 AU conjunction -3350 Mar 08 j 14:20 21°≈10'53 1°20'11 -3344 Apr 10 j 02:14 15°RΩ minimum elong -3350 Mar 10 j 14:07 21°≈39'02 6.03605 AU -3344 May 07 j 07:26 13°**Ω**54'10 max. Earth dist. direct -3344 Jun 03 j 15:16 15°**Ω** morning rise -3350 Mar 22 j 06:08 24°≈23'21 -3350 Apr 15 j 20:45 0°**∀** -3344 Sep 02 j 09:19 0° m retrograde -3350 Jul 30 j 19:56 14° **★** 18'27 evening set -3344 Sep 10 j 18:59 1° m 51'20 min. Earth dist. -3350 Sep 27 j 03:39 9°**)** €23'18 4.07783 AU max. Earth dist. -3344 Sep 21 j 13:43 4° m 15'58 6.33057 AU -3350 Sep 28 j 09:05 9°**升**13'15 -1°-50'-49 opposition 4°**)**€ 14'43 -3344 Sep 23 j 08:41 4° m/40'05 1°17'37 direct -3350 Nov 25 j 17:16 conjunction -3349 Mar 31 j 23:32 23° **米** 18'16 -3344 Sep 23 j 08:43 4° My 40'061°17'40 evening set minimum elong -3344 Oct 05 j 20:33 morning rise 7° **m** 28'07 conjunction -3349 Apr 14 j 17:34 26° **★**27'32 -1°-2'-3 retrograde -3343 Feb 05 j 16:36 25° m 07'20 minimum elong -3349 Apr 14 j 17:38 26° **★**27'34 1°02'04 opposition -3343 Apr 07 j 16:03 20° m 15'19 1°39'49 max. Earth dist. -3349 Apr 16 j 12:51 26° **★** 52'23 6.12839 AU min. Earth dist. -3343 Apr 08 j 22:13 20° Mp 05'44 4.28347 AU morning rise -3349 Apr 28 j 12:33 29° **★** 37'03 direct -3343 Jun 08 j 16:23 15° Mp 17'33 -3349 Apr 30 j 04:54 $0^{\circ}\Upsilon$ -3343 Sep 26 j 09:56 0∘**⊽** -3349 Sep 02 j 19:04 18°**Y**35'53 -3343 Oct 12 j 04:16 3°**₽**32'20 retrograde evening set

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 6 Attention, astronomical year style is used: The year -3343 in astronomical counting style is the year 3344 BCE in historical counting style.

Attention, astronom	ical year style is used: Tl	ne year -3343	in astronomical cou	inting style is the year	3344 BCE in historical of	counting style.	
max. Earth dist.	-3343 Oct 23 j 06:01			minimum elong	-3337 Apr 19 j 19:05	1° Y 21'16	
	-			max. Earth dist.	-3337 Apr 21 j 10:37	1° Y 43'53	6.14602 AU
conjunction	-3343 Oct 24 j 17:38	6° £ 25′07	0°52'51	morning rise	-3337 May 03 j 14:01	4° Ƴ 29'57	
minimum elong	-3343 Oct 24 j 17:41	6° ≏ 25'09	0°52'50	retrograde	-3337 Sep 07 j 08:54	23° Y 19'40	
morning rise	-3343 Nov 06 j 07:03	9° ჲ 18'05		opposition	-3337 Nov 05 j 18:55	18° Ƴ 16'47	0°-57'-12
retrograde	-3342 Mar 12 j 04:51	27° ≏ 48'37		min. Earth dist.	-3337 Nov 04 j 23:51	18° Y 23′16	4.20272 AU
opposition	-3342 May 12 j 06:20	22° ≏ 54'21	0°48'58	direct	-3336 Jan 04 j 08:18	13° Y 14′56	
min. Earth dist.	-3342 May 13 j 00:57	22° ≏ 48'22	4.17036 AU		-3336 May 02 j 09:55	9° 8	
direct	-3342 Jul 12 j 02:17	17° ≏ 59'22		evening set	-3336 May 10 j 13:20	1° 8 47'45	
	-3342 Oct 15 j 07:42	0° M					
evening set	-3342 Nov 13 j 18:02	6°M38'34		conjunction	-3336 May 24 j 06:40	4° 8 51'09	0°-17'-3
				minimum elong	-3336 May 24 j 06:41	4° 8 51'10	0°16'59
conjunction	-3342 Nov 26 j 11:28	9°M37'49	0°10'24	max. Earth dist.	-3336 May 25 j 02:21	5° 8 02'08	6.25894 AU
minimum elong	-3342 Nov 26 j 11:29	9°M37'50	0°10'20	morning rise	-3336 Jun 06 j 22:25	7° 8 53'38	
behind sun begin	-3342 Nov 26 j 05:05	9°M34'05			-3336 Jul 10 j 06:23	15° 8	
behind sun end	-3342 Nov 26 j 17:53	9°M41'35		retrograde	-3336 Oct 08 j 07:44	25° 8 46'09	
max. Earth dist.	-3342 Nov 25 j 21:38	9°M29'41	6.11526 AU	asc. node	-3336 Oct 21 j 06:15	25° 8 29'35	
morning rise	-3342 Dec 09 j 06:18	12°M38'06		opposition	-3336 Dec 06 j 21:35	20° 8 47'03	0°07'46
C	-3342 Dec 19 j 10:59	15° M ₊		min. Earth dist.	-3336 Dec 06 j 16:47	20° 8 48'39	4.30927 AU
desc. node	-3341 Feb 20 j 07:56	27°M30'27		direct	-3335 Feb 05 j 16:48		
	-3341 Mar 11 j 07:34	0° ∡ ¹			-3335 May 26 j 08:47	0°II	
retrograde	-3341 Apr 17 j 13:28	2° ∡ 106'17		evening set	-3335 Jun 13 j 10:28	3° Ⅱ 52'37	
	-3341 May 24 j 22:28	30°RML					
opposition	-3341 Jun 17 j 09:10	27°M08'29	0°-21'-15	conjunction	-3335 Jun 26 j 21:15	6° ∏ 49'32	0°27'28
min. Earth dist.	-3341 Jun 17 j 10:06	27°ML08'11	4.06651 AU	minimum elong	-3335 Jun 26 j 21:13	6° Ⅱ 49'31	0°27'34
direct	-3341 Aug 15 j 20:45	22°M15'19	1.00031710	max. Earth dist.	-3335 Jun 26 j 13:54	6° П 45'30	6.35130 AU
direct	-3341 Oct 27 j 12:43	0°×7		morning rise	-3335 Jul 10 j 05:19	9° П 44'57	0.55150 AC
evening set	-3341 Dec 18 j 02:40			retrograde	-3335 Nov 08 j 07:37		
evening set	-3341 DCC 18 J 02.40	11 🗶 1908		opposition	-3334 Jan 07 j 04:10		1°07'53
agniumation	2241 Dec. 21 : 02:16	1.40.70.4151	0°-37'-7	min. Earth dist.	-3334 Jan 07 j 16:29		4.38125 AU
conjunction	-3341 Dec 31 j 02:16		0°37'14		-3334 Mar 10 j 03:30		4.38123 AU
minimum elong	-3341 Dec 31 j 02:13			direct		0°©	
max. Earth dist.	-3341 Dec 31 j 14:04		6.02996 AU		-3334 Jun 22 j 17:33		
morning rise	-3340 Jan 13 j 04:57			evening set	-3334 Jul 15 j 19:33	4° © 53'42	
. 1	-3340 Mar 10 j 13:46				2224 7 1 20 : 21 22	70645101	1000157
retrograde	-3340 May 23 j 21:17		10.04.10	conjunction	-3334 Jul 28 j 21:23		1°02'57
opposition	-3340 Jul 23 j 07:00			minimum elong	-3334 Jul 28 j 21:20		1°03'04
min. Earth dist.	-3340 Jul 22 j 12:35		4.00901 AU	max. Earth dist.	-3334 Jul 27 j 17:16		6.39677 AU
	-3340 Aug 13 j 20:02			morning rise	-3334 Aug 10 j 19:48		
direct	-3340 Sep 19 j 15:27			retrograde	-3334 Dec 09 j 01:10		1045154
	-3340 Oct 26 j 02:32	0°궁		opposition	-3333 Feb 07 j 09:02		1°47'54
evening set	-3339 Jan 22 j 05:03	17° 5 08'07		min. Earth dist.	-3333 Feb 08 j 09:27		4.39894 AU
		_		direct	-3333 Apr 10 j 22:19		
conjunction	-3339 Feb 04 j 12:05	20° ට 18'07	-1°-11'-46		-3333 Jul 21 j 07:43	$0 {\circ} \Omega$	
minimum elong	-3339 Feb 04 j 12:03	20° る 18'05	1°11'53	evening set	-3333 Aug 16 j 04:17	5° Ω 30′08	
max. Earth dist.	-3339 Feb 06 j 01:30	20°る40'26	6.00446 AU	max. Earth dist.	-3333 Aug 27 j 04:49	7° Ω 55'46	6.38412 AU
morning rise	-3339 Feb 17 j 22:18						
	-3339 Mar 18 j 05:18	0° ≈		conjunction	-3333 Aug 28 j 21:55	8° Ω 18′29	1°20'30
retrograde	-3339 Jun 30 j 00:25	13° ≈ 49'51		minimum elong	-3333 Aug 28 j 21:54	8° Ω 18′28	1°20'36
opposition	-3339 Aug 28 j 21:43	8° ≈ 45′10	-1°-58'-59	morning rise	-3333 Sep 10 j 12:49	11° Ω 05'35	
min. Earth dist.	-3339 Aug 27 j 17:04	8° ≈ 54'53	4.01980 AU		-3333 Sep 28 j 14:41	15° Ω	
direct	-3339 Oct 25 j 21:45	3° ≈ 49′28		retrograde	-3332 Jan 09 j 13:55	28° Ω 16′15	
	-3338 Jan 23 j 02:33	15° ≈		opposition	-3332 Mar 10 j 06:45	23° Ω 24'48	1°58'07
evening set	-3338 Feb 28 j 06:05	23° ≈ 07′10		min. Earth dist.	-3332 Mar 11 j 14:30	23° Ω 14'41	4.35769 AU
				direct	-3332 May 11 j 20:45	18° Ω 24'39	
conjunction	-3338 Mar 13 j 20:04	26° ≈ 18′10	-1°-19'-13		-3332 Aug 16 j 10:47	0° ™	
minimum elong	-3338 Mar 13 j 20:05	26° ≈ 18′11	1°19'18	evening set	-3332 Sep 15 j 04:54	6° Mp 24′25	
max. Earth dist.	-3338 Mar 15 j 20:26	26° ≈ 46'32	6.04912 AU	max. Earth dist.	-3332 Sep 25 j 22:59	8° m 49'14	6.31669 AU
morning rise	-3338 Mar 27 j 12:35	29° ≈ 30′18					
	-3338 Mar 29 j 15:43	0° ∀		conjunction	-3332 Sep 27 j 18:16	9° ™ 13'36	1°15'24
retrograde	-3338 Aug 04 j 15:40	19° ∺ 17'29		minimum elong	-3332 Sep 27 j 18:18	9° ™ 13'37	1°15'26
min. Earth dist.	-3338 Oct 01 j 23:16	14°) €22'31	4.09389 AU	morning rise	-3332 Oct 10 j 06:12	12°Mp02'13	
opposition	-3338 Oct 03 j 04:51	14°) (12′25	-1°-46'-23	retrograde	-3331 Feb 10 j 10:56	29° Mp 48'06	
direct	-3338 Nov 30 j 15:08	9°) 13′27		opposition	-3331 Apr 12 j 11:31	24° m 55'49	1°34'19
evening set	-3337 Apr 06 j 00:50	28°) 12'39		min. Earth dist.	-3331 Apr 13 j 15:42	24° Mp 46'51	4.26807 AU
	-3337 Apr 13 j 21:02	$0^{\circ}\Upsilon$		direct	-3331 Jun 13 j 07:59	19° m 58'29	
					-3331 Sep 08 j 15:05	0∘ ⊽	
conjunction	-3337 Apr 19 j 19:01	1° Y 21'14	0°-57'-33	evening set	-3331 Oct 16 j 17:09	8° ≏ 16′25	
	-				-		

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3331 in astronomical counting style is the year 3332 BCE in historical counting style. max. Earth dist. -3331 Oct 27 j 23:30 10° **2**51'50 6.21270 AU conjunction -3325 Apr 24 i 19:44 6°**℃**13'07 0°-52'-42 -3325 Apr 24 j 19:47 6°Υ13'09 0°52'43 minimum elong 6°**Ƴ**35′01 -3331 Oct 29 j 06:59 11°**£**10'00 0°47'39 -3325 Apr 26 j 10:08 conjunction max. Earth dist. 6.16077 AU minimum elong -3331 Oct 29 j 07:02 11°**£**10'01 -3325 May 08 j 14:31 9°Y21'08 0°47'38 morning rise -3331 Nov 10 j 20:48 14°**£**03'50 -3325 Sep 11 j 21:43 28°**Y**02'46 morning rise retrograde -3330 Feb 02 j 16:25 0° M -3325 Nov 10 j 08:00 23°**Υ**00'21 0°-48'-34 opposition -3325 Nov 09 j 14:24 23°**Y**06'19 retrograde -3330 Mar 17 j 06:10 2°M42'02 min. Earth dist. 4.21707 AU 17°**Y**58'13 -3324 Jan 09 j 00:22 -3330 Apr 29 j 09:31 30°Ŗჲ direct opposition -3330 May 17 j 07:12 27°**△**47'21 0°39'41 -3324 Apr 15 j 05:35 0°B min. Earth dist. -3330 May 17 j 23:55 27°**£**41'59 4.15590 AU evening set -3324 May 15 j 08:57 6°**8**27'52 direct -3330 Jul 16 j 23:44 22°**♀**52'45 -3324 May 29 j 01:32 9°**8**30'28 0°-10'-45 -3330 Sep 25 j 11:26 0°M conjunction -3330 Nov 18 j 12:02 11°M34'50 -3324 May 29 j 01:33 evening set minimum elong 9°**8**30'28 0°10'42 behind sun begin -3324 May 28 j 19:15 9°**8**26'59 conjunction -3330 Dec 01 j 06:03 14°ML34'55 0°03'37 behind sun end -3324 May 29 j 07:51 9°**8**33'58 minimum elong -3330 Dec 01 j 06:02 14°M34'55 0°03'32 max. Earth dist. -3324 May 29 j 16:01 9°**8**38'31 6.27177 AU behind sun begin -3330 Nov 30 j 22:03 14°M30'13 morning rise -3324 Jun 11 j 16:39 12°**8**32'05 behind sun end -3330 Dec 01 j 14:01 14°M39'36 -3324 Jun 22 j 22:46 15°**8** max. Earth dist. -3330 Nov 30 j 18:35 14°M28'10 6.10296 AU asc. node -3324 Aug 31 j 07:45 27°**8**32'17 -3330 Dec 03 i 00:35 15°M -3324 Sep 28 j 23:02 $0^{\circ}\Pi$ morning rise -3330 Dec 14 j 01:59 17°M 36'10 retrograde -3324 Oct 12 j 17:32 0°**Ⅱ**18'36 desc. node -3330 Dec 30 j 14:58 21°M25'28 -3324 Oct 26 i 09:44 30°R8 -3329 Feb 10 i 01:49 0°×7 opposition -3324 Dec 11 j 07:33 25° \(\begin{aligned}
 20'00 0°16'54 \end{aligned}
 \) retrograde -3329 Apr 22 j 17:24 7°**х¹**10'46 min. Earth dist. -3324 Dec 11 i 05:53 25°820'33 4.31958 AU opposition -3329 Jun 22 j 13:02 2°**х** 12'22 0°-31'-24 direct -3323 Feb 10 j 07:42 20°816'28 min. Earth dist. -3329 Jun 22 j 10:16 2°**₹**13'16 4.05748 AU -3323 May 08 j 12:33 $0^{\circ}\Pi$ -3329 Jul 10 j 01:46 30°RM -3323 Jun 18 j 01:20 8°**Ⅲ**23'33 evening set -3329 Aug 20 j 19:56 27°ML19'15 direct -3329 Sep 30 j 19:20 0°**尽** -3323 Jul 01 j 11:10 11°**Д**19'44 0°33'14 conjunction -3323 Jul 01 j 11:07 11°**Ⅲ**19'43 0°33'21 -3329 Dec 23 j 01:53 16° ₹25'01 evening set minimum elong -3323 Jul 01 j 01:52 11°**Д**14'38 6.35835 AU max. Earth dist. -3328 Jan 05 j 02:33 19° **₹**'31'22 0°-43'-10 -3323 Jul 14 j 17:47 14°**I**I14'19 conjunction morning rise -3328 Jan 05 j 02:29 19°**х** 31′20 0°43′18 -3323 Oct 13 j 14:39 0ಂತಾ minimum elong -3328 Jan 05 j 19:16 19°**х** 41'22 -3323 Nov 12 j 14:26 max. Earth dist. 6.02489 AU retrograde 1°9524'47 -3328 Jan 18 j 06:06 22° ₹ 39'24 -3323 Dec 12 j 14:08 30°RⅡ morning rise -3328 Feb 19j 08:02 0°る -3322 Jan 11 j 13:16 26°**Ⅲ**29'58 1°15'01 opposition -3328 May 29 j 03:26 12°る53'42 -3322 Jan 12 j 02:43 26°**I**I25'34 4.38486 AU retrograde min. Earth dist. opposition -3328 Jul 28 j 10:53 7°る51'23 -1°-33'-20 direct -3322 Mar 14 j 14:12 21°**Ⅲ**26'32 0ಂತಾ min. Earth dist. -3328 Jul 27 j 15:28 7°る57'52 4.00855 AU -3322 Jun 04 j 09:58 direct -3328 Sep 24 j 18:05 2°る57'44 evening set -3322 Jul 20 j 07:12 9°520'36 -3327 Jan 27 j 08:04 22°**♂**17'08 max. Earth dist. -3322 Aug 01 j 00:34 11°554'20 6.39661 AU evening set -3327 Feb 09 j 16:00 25°**♂**27'21 -1°-14'-37 conjunction -3322 Aug 02 j 07:40 12°511'23 1°06'40 conjunction -3327 Feb 09 j 15:57 25° ₹327'19 1°14'44 -3322 Aug 02 j 07:37 12°511'21 minimum elong minimum elong -3327 Feb 11j07:28 25°る50'51 6.00838 AU -3322 Aug 15 j 05:00 15°500'35 max. Earth dist. morning rise -3327 Feb 23 j 03:15 28°る39'15 morning rise -3322 Nov 07 j 07:08 $0^{\circ}\Omega$ -3327 Feb 28 i 20:34 0°≈ retrograde -3322 Dec 13 j 12:12 2°Ω00'14 -3327 May 14 i 23:59 15°≈ -3321 Jan 18 j 21:52 30°R 55 retrograde -3327 Jul 05 i 01:16 18°≈56'19 opposition -3321 Feb 11 j 20:22 27°507'59 1°51'18 -3327 Aug 25 j 10:11 15°R≈ min. Earth dist. -3321 Feb 12 j 22:48 26°559'29 4.39533 AU -3327 Sep 02 j 21:38 13°≈51'27 -1°-59'-55 direct -3321 Apr 15 j 11:40 22°505'55 opposition min. Earth dist. -3327 Sep 01 j 15:44 14°≈01'37 4.02801 AU -3321 Jul 02 j 15:02 $0^{\circ}\Omega$ -3327 Oct 30 j 21:19 direct -3321 Aug 20 j 13:59 8°≈55'19 evening set 9°**£**58′08 -3326 Jan 01 j 23:13 15°≈ max. Earth dist. -3321 Aug 31 j 13:32 12°**Ω**23'32 6.37736 AU -3326 Mar 05 j 09:35 28°≈10'54 evening set 0°**)**€ -3326 Mar 13 j 04:38 conjunction -3321 Sep 02 j 06:52 12° Ω 46'25 1°21'12 minimum elong -3321 Sep 02 j 06:51 $12^{\circ}\Omega 46'25$ 1°21'17 -3326 Mar 19 j 00:17 1°**)** 21'42 -1°-17'-48 -3321 Sep 12 j 08:17 15°**Ω** conjunction -3326 Mar 19 j 00:19 1°**)**€21'43 1°17'52 -3321 Sep 14 j 21:01 $15^{\circ}\Omega$ 33'29 minimum elong morning rise -3326 Mar 20 j 23:16 1°**)**49′10 -3321 Dec 01 j 20:26 max. Earth dist. 6.06073 AU 0° m -3320 Jan 14 j 02:25 morning rise -3326 Apr 01 j 17:25 4°**)** 33'32 retrograde 2° Mp 47'47 retrograde -3326 Aug 09 j 10:58 24° **★** 13'36 -3320 Feb 27 j 03:33 30°RΩ opposition -3326 Oct 07 j 23:08 19°**米**08'39 -1°-41'-18 opposition -3320 Mar 14 j 21:45 $27^{\circ}\Omega$ 56'18 1°56'48 min. Earth dist. -3326 Oct 06 j 19:20 19° **★** 18'09 4.10753 AU min. Earth dist. -3320 Mar 16 j 04:11 27°**Ω**46'37 4.34848 AU direct -3326 Dec 05 j 13:13 14°**米**09'10 direct -3320 May 16 j 09:24 22° **Ω** 56'35 -3325 Mar 28 j 07:19 $0^{\circ}\Upsilon$ -3320 Jul 28 j 02:12

-3325 Apr 11 j 01:09

evening set

3°Y05'03

evening set

-3320 Sep 19 j 15:04 10° m 57'54

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 8 Attention, astronomical year style is used: The year -3320 in astronomical counting style is the year 3321 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	ne year -3320	in astronomical cou	inting style is the year	3321 BCE in historical of	counting style.	
max. Earth dist.	-3320 Sep 30 j 11:06			conjunction	-3314 Mar 24 j 02:16	6°) 19'14	
				minimum elong	-3314 Mar 24 j 02:18	6° 升 19'15	1°15'55
conjunction	-3320 Oct 02 j 04:10	13° m 47'23	1°12'46	max. Earth dist.	-3314 Mar 26 j 01:52	6°) 46′59	6.07015 AU
minimum elong	-3320 Oct 02 j 04:12	13° m 47'25	1°12'47	morning rise	-3314 Apr 06 j 19:52	9°) 30′52	
morning rise	-3320 Oct 14 j 15:57	16°№36′25		retrograde	-3314 Aug 14 j 04:36	29°) €04'50	
	-3320 Dec 21 j 15:46	0∘ ত		opposition	-3314 Oct 12 j 15:27	24°) €00'12	-1°-35'-40
retrograde	-3319 Feb 15 j 06:12	4° £ 27'51		min. Earth dist.	-3314 Oct 11 j 12:40	24°) €09′20	4.11859 AU
	-3319 Apr 14 j 01:32	30°R, Mp		direct	-3314 Dec 10 j 07:25	19°) €00′22	
opposition	-3319 Apr 17 j 07:04	29° m 35'22	1°28'15		-3313 Mar 10 j 15:33	$0^{\circ}\Upsilon$	
min. Earth dist.	-3319 Apr 18 j 10:35	29° Mp 26'37	4.25628 AU	evening set	-3313 Apr 16 j 00:08	7° Y 54'06	
direct	-3319 Jun 18 j 01:39	24°M 38'28					
	-3319 Aug 18 j 11:49	0∘ ⊽		conjunction	-3313 Apr 29 j 18:42	11° Y 01'43	0°-47'-34
evening set	-3319 Oct 21 j 05:36	12° ≏ 58'13		minimum elong	-3313 Apr 29 j 18:46	11° Y 01'45	0°47'34
				max. Earth dist.	-3313 May 01 j 05:03	11° Y 21'14	6.17265 AU
conjunction	-3319 Nov 02 j 19:41	15° ≏ 52'26	0°42'13	morning rise	-3313 May 13 j 13:34	14° Y 09′12	
minimum elong	-3319 Nov 02 j 19:44	15° ≙ 52'27	0°42'11		-3313 Aug 05 j 11:59	9° 8	
max. Earth dist.	-3319 Nov 01 j 13:45	15° ≏ 35'07	6.20097 AU	retrograde	-3313 Sep 16 j 09:35	2° 8 44'04	
morning rise	-3319 Nov 15 j 10:12	18° ≏ 47'04			-3313 Oct 28 j 04:15	30° ₹ Υ	
	-3318 Jan 07 j 08:31	0°M		opposition	-3313 Nov 14 j 20:11	27° Ƴ 42′08	0°-39'-46
retrograde	-3318 Mar 22 j 04:26	7° M 31'37		min. Earth dist.	-3313 Nov 14 j 04:39	27° Ƴ 47′23	4.22870 AU
opposition	-3318 May 22 j 06:36	2°M36'28	0°30'16	direct	-3312 Jan 13 j 16:40		
min. Earth dist.	-3318 May 22 j 19:54	2°M32'11	4.14499 AU		-3312 Mar 26 j 16:09	0°8	
	-3318 Jun 12 j 16:15	30° ₽ Ω		evening set	-3312 May 20 j 03:53		
direct	-3318 Jul 21 j 18:10	27° Ω 42'09		Z .	, ,	_	
	-3318 Aug 29 j 05:39	0°M		conjunction	-3312 Jun 02 j 20:01	14° 8 09'08	0°-4'-27
desc. node	-3318 Nov 09 j 23:13	13°M22'16		minimum elong	-3312 Jun 02 j 20:02		0°04'24
	-3318 Nov 17 j 00:49	15° ™		behind sun begin	-3312 Jun 02 j 11:53		
evening set	-3318 Nov 23 j 04:21	16°M26'05		behind sun end	-3312 Jun 03 j 04:10		
evening sec	55101107 25 j 01.21	10 11020 03		max. Earth dist.	-3312 Jun 03 j 08:41		6 28260 AU
conjunction	-3318 Dec 05 j 23:08	19°M26'52	0°-3'-11	max. Earth dist.	-3312 Jun 06 j 15:31		0.20200 110
minimum elong	-3318 Dec 05 j 23:09	19°M26'52		morning rise	-3312 Jun 16 j 10:05		
behind sun begin	-3318 Dec 05 j 15:08	19°M22'09	0 03 10	asc. node	-3312 Jul 11 j 12:13		
behind sun end	-3318 Dec 06 j 07:09	19°M31'35		asc. node	-3312 Aug 20 j 19:02	0°Ⅱ	
max. Earth dist.	-3318 Dec 05 j 16:13	19°M22'48	6.09392 AU	retrograde	-3312 Aug 20 j 17:02 -3312 Oct 17 j 02:15	4° ∏ 51'08	
morning rise	-3318 Dec 03 j 10:13		0.09392 AU	renograde	-3312 Oct 17 j 02:13		
morning rise	-3317 Jan 21 j 02:23	0° x ⁷		opposition	-3312 Dec 14 j 20.28		0025152
retrograde	-			min. Earth dist.	-3312 Dec 15 j 17:14		4.32882 AU
•	-3317 Apr 27 j 21:00		00 411 6		•		4.32882 AU
opposition	-3317 Jun 27 j 14:39	7°× 7 09'56		direct	-3311 Feb 14 j 20:52		
min. Earth dist.	-3317 Jun 27 j 10:29		4.05102 AU	. ,	-3311 Apr 17 j 00:23		
direct	-3317 Aug 25 j 18:45	2°×16'53		evening set	-3311 Jun 22 j 15:59		6 2 6 5 1 0 A T I
evening set	-3317 Dec 27 j 22:58	21° x '23'38		max. Earth dist.	-3311 Jul 05 j 11:03	15°Щ42′57	6.36519 AU
	22161 10:00 27	240 720151	00 401 45		2211 1 1 06:00 20	150 T 50110	0020147
conjunction	-3316 Jan 10 j 00:27		0°-48'-45	conjunction	-3311 Jul 06 j 00:28		0°38'47
minimum elong	-3316 Jan 10 j 00:24		0°48'53	minimum elong	-3311 Jul 06 j 00:25	15° I I50'16	0°38'55
max. Earth dist.	-3316 Jan 10 j 19:37		6.02144 AU	morning rise	-3311 Jul 19 j 05:59	18° Ⅱ 44'07	
morning rise	-3316 Jan 23 j 05:07				-3311 Sep 14 j 00:43	0°9	
	-3316 Feb 02 j 04:02	0°₹		retrograde	-3311 Nov 16 j 22:59	5°951'55	
retrograde	-3316 Jun 03 j 04:25	17° る 55'37	10 201 25	opposition	-3310 Jan 15 j 22:43	0°957'27	1°21'42
opposition	-3316 Aug 02 j 11:15	12° ろ 52'56	-1°-39'-27	min. Earth dist.	-3310 Jan 16 j 14:25	0°952'20	4.38902 AU
min. Earth dist.	-3316 Aug 01 j 13:38	13° ろ 00'10	4.00882 AU		-3310 Jan 23 j 08:00	30°R∏	
direct	-3316 Sep 29 j 15:39	7° る 59'04		direct	-3310 Mar 19 j 03:17		
evening set	-3315 Feb 01 j 08:42	27° る 18'42			-3310 May 12 j 13:18	0ಂ ತಾ	
	-3315 Feb 12 j 16:32	0° ≈		evening set	-3310 Jul 24 j 17:52		
				max. Earth dist.	-3310 Aug 05 j 09:48	16° © 20'12	6.39754 AU
conjunction	-3315 Feb 14 j 17:33	0° ≈ 29'09	-1°-16'-51				
minimum elong	-3315 Feb 14 j 17:32	0° ≈ 29'08	1°16'58	conjunction	-3310 Aug 06 j 17:16	16° © 37'27	1°09'58
max. Earth dist.	-3315 Feb 16 j 09:41	0° ≈ 53'01	6.01211 AU	minimum elong	-3310 Aug 06 j 17:13	16° © 37'26	1°10'05
morning rise	-3315 Feb 28 j 05:43	3° ≈ 41'15		morning rise	-3310 Aug 19 j 13:14	19° 5 26'06	
	-3315 Apr 20 j 18:23	15° ≈			-3310 Oct 11 j 06:34	$0^{\circ}\Omega$	
retrograde	-3315 Jul 09 j 23:54	23° ≈ 55'40		retrograde	-3310 Dec 17 j 19:52	6° Ω 26′02	
opposition	-3315 Sep 07 j 18:32	18° ≈ 50'40	-1°-59'-59	opposition	-3309 Feb 16 j 07:01	1° Ω 33'54	1°54'02
min. Earth dist.	-3315 Sep 06 j 13:08	19° ≈ 00'41	4.03481 AU	min. Earth dist.	-3309 Feb 17 j 09:27	1° Ω 25′26	4.39300 AU
	-3315 Oct 10 j 08:53	15°R≈			-3309 Feb 28 j 16:56	30° ₹ 5	
direct	-3315 Nov 04 j 19:51	13° ≈ 54′06		direct	-3309 Apr 19 j 22:26	26°532'06	
	-3315 Nov 30 j 08:13	15° ≈			-3309 Jun 08 j 18:12	0 $^{\circ}$ Ω	
	-3314 Feb 24 j 18:34	0° ∀		evening set	-3309 Aug 24 j 22:42	14° Ω 24′28	
evening set	-3314 Mar 10 j 10:37	3° ¥ 08′27			-3309 Aug 27 j 15:14	15° Ω	

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 9 Attention, astronomical year style is used: The year -3309 in astronomical counting style is the year 3310 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	ne year -3309	in astronomical cou	inting style is the year	3310 BCE in historical of	counting style.	
max. Earth dist.	-3309 Sep 04 j 20:05	16° Ω 48'59	6.37158 AU	max. Earth dist.	-3303 Feb 21 j 18:56	6° ≈ 06′07	6.01426 AU
				morning rise	-3303 Mar 05 j 12:30	8° ≈ 52'42	
conjunction	-3309 Sep 06 j 14:37	17° Ω 12'35	1°21'25		-3303 Apr 01 j 05:31	15° ≈	
minimum elong	-3309 Sep 06 j 14:37	17° Ω 12'35	1°21'30	retrograde	-3303 Jul 15 j 02:59	29° ≈ 04'25	
morning rise	-3309 Sep 19 j 04:13	19° Ω 59'37		opposition	-3303 Sep 12 j 19:13	23° ≈ 59′21	-1°-59'-8
	-3309 Nov 07 j 00:24	0° m)		min. Earth dist.	-3303 Sep 11 j 13:26		4.04180 AU
retrograde	-3308 Jan 18 j 15:59	7° m)17'14		direct	-3303 Nov 09 j 20:38	19° ≈ 02′24	
opposition	-3308 Mar 19 j 11:47	2°M) 25'40			-3302 Feb 06 j 12:42	0° ∀	
min. Earth dist.	-3308 Mar 20 j 19:15	2° m 15'40	4.33931 AU	evening set	-3302 Mar 15 j 16:18	8° 升 15′18	
	-3308 Apr 08 j 10:25	30°R€					
direct	-3308 May 20 j 23:21	27° Ω 26'14		conjunction	-3302 Mar 29 j 08:31		
	-3308 Jul 02 j 01:32	0°m)		minimum elong	-3302 Mar 29 j 08:34		1°13'21
evening set	-3308 Sep 23 j 23:46	15° Tp 29'03	(2 020 (1 X X	max. Earth dist.	-3302 Mar 31 j 06:42		6.08144 AU
max. Earth dist.	-3308 Oct 04 j 20:18	17° m 56'03	6.29396 AU	morning rise	-3302 Apr 12 j 02:48	14° 升 37'15 0° Ƴ	
:	2200 0-4 06: 12.40	100 m, 10150	1900142		-3302 Jun 28 j 06:34	0°γ 4° Υ 03'49	
conjunction	-3308 Oct 06 j 12:48	18° Mp 18'58 18° Mp 19'00	1°09'42	retrograde	-3302 Aug 18 j 23:30		
minimum elong morning rise	-3308 Oct 06 j 12:51 -3308 Oct 19 j 00:41		1°09'44	min. Earth dist.	-3302 Oct 10 j 00:16		4.13320 AU
morning rise	,	21°№08'32 0° <u>മ</u>			-3302 Oct 16 j 08:27 -3302 Oct 17 j 10:50		-1°-29'-11
retrograde	-3308 Nov 29 j 15:11 -3307 Feb 19 j 23:08	0 <u>⊶</u> 9° ഫ 06'07		opposition direct	-3302 Oct 17 j 10.30 -3302 Dec 15 j 06:01		-1 -29-11
opposition	-3307 Apr 22 j 01:42	4° £ 13'17	1021120	direct	-3301 Feb 17 j 07:20	23 γ (3912	
min. Earth dist.		4° £ 05'13	4.24211 AU	ovening set	-3301 Peo 17 j 07:20 -3301 Apr 21 j 02:04		
IIIII. Eartii dist.	-3307 Apr 23 j 03:02 -3307 May 31 j 23:57	30°RM)	4.24211 AU	evening set	-3301 Apr 21 J 02.04	12 49 13	
direct	-3307 May 31 j 25.37 -3307 Jun 22 j 15:42	29° Mp 16'44		conjunction	-3301 May 04 j 20:46	15° Y 56'08	0°-42'-1
direct	-3307 Jul 14 j 07:28	0° <u>0</u>		minimum elong	-3301 May 04 j 20:49	15° Υ 56'09	0°42'00
evening set	-3307 Oct 25 j 17:27	0 = 17° • 39'18		max. Earth dist.	-3301 May 04 j 20:49	16° Υ 15'05	6.18993 AU
max. Earth dist.	-3307 Oct 25 j 17.27 -3307 Nov 06 j 04:58		6.18586 AU	morning rise	-3301 May 00 j 00:13	19° Υ 02'41	0.18993 AU
max. Earth dist.	-3307 1107 00 j 04.38	20 = 10 39	0.16360 AU	morning risc	-3301 Jul 10 j 07:41	0°8	
conjunction	-3307 Nov 07 j 07:58	20° ≏ 34'19	0°36'30	retrograde	-3301 Sep 20 j 23:39	7° 8 28'31	
minimum elong	-3307 Nov 07 j 07:38	20° △ 34'20	0°36'27	opposition	-3301 Nov 19 j 10:11		0°-30'-36
morning rise	-3307 Nov 07 j 08:01 -3307 Nov 19 j 23:07	23° £ 29'53	0 30 27	min. Earth dist.	-3301 Nov 19 j 10:11	2° 8 31'46	4.24700 AU
morning risc	-3307 Dec 19 j 01:32	0°M		iiiii. Lattii dist.	-3301 Nov 18 j 20:25	2 3 31 4 0	4.24700 AC
retrograde	-3306 Mar 27 j 06:11	12°M22'18		direct	-3300 Jan 18 j 11:53		
opposition	-3306 May 27 j 06:21	7°M26'38	0°20'35	ancer	-3300 Feb 28 j 23:03	0°8	
min. Earth dist.	-3306 May 27 j 18:29	7°M22'43	4.12985 AU	asc. node	-3300 May 21 j 11:01	_	
direct	-3306 Jul 26 j 14:24	2°M32'31	2,00110	use. Hour	-3300 May 21 j 09:25		
desc. node	-3306 Sep 19 j 20:46	7° ™ 08'32		evening set	-3300 May 24 j 23:24		
	-3306 Oct 31 j 03:09			<i>3</i>	, ,		
evening set	-3306 Nov 27 j 21:55			conjunction	-3300 Jun 07 j 14:32	18° 8 47'58	0°02'00
C	,			minimum elong	-3300 Jun 07 j 14:32		
conjunction	-3306 Dec 10 j 17:33	24°M21'48	0°-9'-55	behind sun begin	-3300 Jun 07 j 06:15	18° 8 43'24	
minimum elong	-3306 Dec 10 j 17:33		0°10'01	behind sun end	-3300 Jun 07 j 22:50		
behind sun begin	-3306 Dec 10 j 10:59			max. Earth dist.	-3300 Jun 07 j 23:33		6.30054 AU
behind sun end	-3306 Dec 11 j 00:06	24°M25'39		morning rise	-3300 Jun 21 j 03:38	21° 8 47'34	
max. Earth dist.	-3306 Dec 10 j 13:24	24° M 19′21	6.08016 AU		-3300 Jul 30 j 09:01	$\Pi^{\circ}0$	
morning rise	-3306 Dec 23 j 15:25	27°M24'54		retrograde	-3300 Oct 21 j 09:31	9° Ⅱ 21'11	
	-3305 Jan 03 j 17:25	0° ∡ ¹		opposition	-3300 Dec 20 j 02:38	4° Ⅱ 23'39	0°34'32
retrograde	-3305 May 03 j 00:38	17° ∡ 11′50		min. Earth dist.	-3300 Dec 20 j 04:26	4° Ⅱ 23′03	4.34511 AU
opposition	-3305 Jul 02 j 17:38	12° ∡ 12′20	0°-50'-42		-3299 Jan 29 j 18:11	30°₹ ႘	
min. Earth dist.	-3305 Jul 02 j 10:17	12° ∡ 14'45	4.04014 AU	direct	-3299 Feb 19 j 10:54	29° 8 20'01	
direct	-3305 Aug 30 j 16:26	7° ∡ 19'17			-3299 Mar 12 j 09:10	Π °0	
evening set	-3304 Jan 01 j 23:07	26° ∡ ¹29'35		evening set	-3299 Jun 27 j 04:31	17° Ⅱ 21′09	
conjunction	-3304 Jan 15 j 01:37	29° ∡ ³37'14	0°-54'-7	conjunction	-3299 Jul 10 j 11:45	20° Ⅱ 15′27	0°43'59
minimum elong	-3304 Jan 15 j 01:34	29° ∡ ³37′12	0°54'14	minimum elong	-3299 Jul 10 j 11:42	20° Ⅱ 15′25	0°44'05
max. Earth dist.	-3304 Jan 15 j 23:45	29° ∡ ¹50′27	6.01424 AU	max. Earth dist.	-3299 Jul 09 j 20:35		6.37857 AU
	-3304 Jan 16 j 15:43	5°0		morning rise	-3299 Jul 23 j 15:41	23° Ⅱ 08′06	
morning rise	-3304 Jan 28 j 07:24	2° る 46'38			-3299 Aug 25 j 10:49	0	
retrograde	-3304 Jun 08 j 10:12	23° る 05'55		retrograde	-3299 Nov 21 j 03:21	10°5511'26	
opposition	-3304 Aug 07 j 14:52	18° පි 02'46	-1°-45'-1	opposition	-3298 Jan 20 j 05:28	5° © 17'25	1°27'38
min. Earth dist.	-3304 Aug 06 j 15:55	18° る 10'28	4.00618 AU	min. Earth dist.	-3298 Jan 20 j 22:51	5° © 11'47	4.39860 AU
direct	-3304 Oct 04 j 18:10	13° る 08'35		direct	-3298 Mar 23 j 13:06	0°514'14	
	-3303 Jan 26 j 22:23	0° ≈		evening set	-3298 Jul 29 j 01:00	18° © 04'46	
evening set	-3303 Feb 06 j 13:22	2° ≈ 29'27		max. Earth dist.	-3298 Aug 09 j 11:34	20°534'50	6.40227 AU
conjunction	-3303 Feb 19 j 23:26		-1°-18'-34	conjunction	-3298 Aug 10 j 23:00		1°12'44
minimum elong	-3303 Feb 19 j 23:25	5° ≈ 40′18	1°18'41	minimum elong	-3298 Aug 10 j 22:57	20°554'14	1°12'51

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 10

Attention, astronomical year style is used: The year -3298 in astronomical counting style is the year 3299 BCE in historical counting style. -3298 Aug 23 j 17:58 23°5042'16 evening set -3291 Feb 11 j 20:55 7°≈46'25 morning rise -3298 Sep 22 j 14:48 0 $^{\circ}\Omega$ -3298 Dec 22 j 01:59 $10^{\circ}\Omega41'45$ conjunction -3291 Feb 25 i 07:54 10°≈57'35 -1°-19'-37 retrograde -3297 Feb 20 j 14:11 minimum elong -3291 Feb 25 j 07:53 10°≈57'35 1°19'43 5°**Ω**49'49 1°55'58 opposition -3291 Feb 27 j 04:33 11°≈24'03 -3297 Feb 21 j 18:50 min. Earth dist. 5°**Ω**40'38 4.39260 AU max. Earth dist. 6.01689 AU -3291 Mar 10 j 22:06 direct -3297 Apr 24 j 07:06 0°**Ω**48'12 morning rise 14°≈10′16 -3291 Mar 14 j 10:57 -3297 Aug 12 j 04:05 15°**Ω** 15°≈ -3291 May 27 j 18:52 evening set -3297 Aug 29 j 02:46 18°**Ω**40'21 0°**∀** -3291 Jul 20 j 04:32 max. Earth dist. $-3297 \text{ Sep } 08 \text{ j } 23:15 \quad 21^{\circ} \Omega 04'34$ 6.36591 AU retrograde 4°**₩**18'16 -3291 Sep 12 j 02:50 30°R≈ conjunction -3297 Sep 10 j 18:09 $21^{\circ}\Omega 28'25$ $1^{\circ}21'09$ opposition -3291 Sep 17 j 21:01 29°**≈**12'59 -1°-57'-15 -3297 Sep 10 j 18:10 21° **Ω**28'25 min. Earth dist. -3291 Sep 16 j 13:55 minimum elong 1°21'13 29°**≈**23'36 4.05050 AU -3297 Sep 23 j 07:04 24° **Ω**15'27 -3291 Nov 14 j 23:32 24°≈15'30 morning rise direct -3297 Oct 20 j 00:36 0° m -3290 Jan 15 j 09:40 0°**)**€ retrograde -3296 Jan 22 j 23:59 11° Mp 36'50 evening set -3290 Mar 20 j 23:19 13°**¥**25′58 opposition -3296 Mar 23 j 21:54 6° Mp 45'14 1°52'13 min. Earth dist. -3296 Mar 25 j 05:11 6° Mp 35'18 4.32860 AU conjunction -3290 Apr 03 j 16:19 16°**)** 36'13 -1°-10'-6 direct -3296 May 25 j 06:41 1°M/46'10 minimum elong -3290 Apr 03 j 16:23 16°**)** ★36'15 evening set -3296 Sep 28 j 04:57 19° mp 51'23 max. Earth dist. -3290 Apr 05 j 15:04 17° **¥** 03'18 6.09525 AU max. Earth dist. -3296 Oct 09 j 00:59 22° m 18'40 6.27901 AU morning rise -3290 Apr 17 j 10:49 19°**)**(47'04 -3290 Jun 03 j 20:08 $0^{\circ}\Upsilon$ conjunction -3296 Oct 10 j 17:51 22° m 41'53 1°06'21 retrograde -3290 Aug 23 i 20:37 9°Y04'52 minimum elong -3296 Oct 10 j 17:53 22° m 41'54 min. Earth dist. -3290 Oct 21 i 06:06 4°Υ09'07 4.15004 AU morning rise -3296 Oct 23 i 06:00 25° m 32'10 opposition -3290 Oct 22 i 06:49 4°Υ00'41 -1°-21'-58 -3296 Nov 12 j 09:03 0∘**⊽** -3290 Nov 25 j 17:10 30°R € -3295 Feb 24 j 16:30 13°**£**37'23 -3290 Dec 20 j 06:56 29° ¥ 00'00 retrograde direct -3295 Apr 26 j 17:27 -3289 Jan 14 j 02:01 $0^{\circ}\Upsilon$ opposition 8°<u>₽44'19 1°14'47</u> -3295 Apr 27 j 19:00 -3289 Apr 26 j 04:14 17°**Υ**45'19 min. Earth dist. 8°**£**36'10 4.22357 AU evening set -3295 Jun 27 j 04:16 3°**£**48'03 direct evening set -3295 Oct 30 j 03:17 22° **2**15'27 -3289 May 09 j 22:42 20°**Y**51'21 conjunction 0°-36'-7 $-3289 \text{ May } 09 \text{ j } 22:45 \quad 20^{\circ} \Upsilon 51'23$ minimum elong 0°36'06 -3295 Nov 11 j 18:31 25°**£**11'37 0°30'43 -3289 May 11 j 05:19 21°**Υ**08'37 conjunction max. Earth dist. 6.20810 AU -3295 Nov 11 j 18:33 25°**£**11'38 0°30'39 -3289 May 23 j 16:40 23°**Y**56'55 minimum elong morning rise -3295 Nov 10 j 17:17 24°**£**56'55 -3289 Jun 20 j 13:02 0°8 max. Earth dist. 6.16550 AU -3295 Nov 24 j 10:30 28°**♀**08'25 -3289 Sep 25 j 11:42 12°**8**13'32 morning rise retrograde -3295 Dec 02 j 12:20 0°M -3289 Nov 23 j 11:38 7°**8**16'46 4.26463 AU min. Earth dist. -3294 Feb 22 j 05:19 15°M -3289 Nov 24 j 00:01 7°**8**12'36 0°-21'-11 opposition retrograde -3294 Apr 01 j 05:15 17° ML10'47 direct -3288 Jan 23 j 05:59 2°**8**09'41 -3294 May 09 j 12:10 15°RM -3288 Mar 30 j 05:13 8°**8**23'25 asc. node opposition -3294 Jun 01 j 04:40 12°ML14'41 0°10'56 -3288 May 04 j 05:48 15°**8** min. Earth dist. -3294 Jun 01 j 14:06 12°ML11'39 4.10932 AU evening set -3288 May 29 j 19:07 20°**8**27'59 direct -3294 Jul 31 j 05:59 7°M20'52 desc. node -3294 Aug 01 j 00:24 7°**M**20'55 -3288 Jun 12 j 09:19 23°**8**27'44 0°08'24 conjunction -3294 Oct 12 j 01:17 15°M -3288 Jun 12 j 09:18 23°**8**27'43 minimum elong -3294 Dec 02 j 15:35 26°Ml4'23 -3288 Jun 12 j 02:07 23°**8**23'46 evening set behind sun begin -3288 Jun 12 j 16:28 23°**8**31'40 behind sun end -3294 Dec 15 i 12:10 29°ML17'23 0°-16'-30 -3288 Jun 12 j 14:41 23°\(230'40\) 6.31626 AU conjunction max. Earth dist. minimum elong -3294 Dec 15 i 12:09 29°M 17'22 0°16'37 morning rise -3288 Jun 25 j 21:10 26° **8**26'09 max. Earth dist. -3294 Dec 15 j 11:09 29°ML16'47 6.06132 AU -3288 Jul 12 i 08:59 $\Pi^{\circ}0$ -3294 Dec 18 i 11:51 0°×7 -3288 Oct 25 j 19:16 13°**Д**53'14 retrograde -3294 Dec 28 j 11:14 opposition -3288 Dec 24 j 12:50 8° **II** 56'16 0° 43'09 morning rise 2° ×721'51 -3293 May 08 j 06:53 22° ₹ 17'54 min. Earth dist. -3288 Dec 24 j 17:32 8°**Д**54'43 4.35769 AU retrograde -3287 Feb 24 j 01:52 -3293 Jul 07 j 21:28 17° ₹ 17'50 0°-59'-53 direct 3°**Ⅱ**52'35 opposition min. Earth dist. -3293 Jul 07 j 11:46 17°**尽**21'03 4.02483 AU evening set -3287 Jul 01 j 18:20 21° **1**50′53 direct -3293 Sep 04 j 16:43 12°**x** 24'46 max. Earth dist. -3287 Jul 14 j 04:47 24°**Ц**33'40 6.38682 AU -3293 Dec 31 j 00:13 0°궁 -3292 Jan 07 j 01:08 1°る40'01 conjunction -3287 Jul 15 j 00:12 24°**Ⅲ**44'18 0°49'04 evening set -3287 Jul 15 j 00:09 24°**Д**44'16 0°49'10 minimum elong -3292 Jan 20 j 04:55 4°₹48'39 0°-59'-2 -3287 Jul 28 j 02:52 27°**Ⅲ**36'04 conjunction morning rise -3292 Jan 20 j 04:52 4°る48'37 0°59'09 -3287 Aug 08 j 06:05 minimum elong 0ಂತಾ 5°**る**04'57 -3287 Nov 25 j 11:17 14°536'51 max. Earth dist. -3292 Jan 21 j 08:11 6.00394 AU retrograde morning rise -3292 Feb 02 j 11:50 7°**る**59'02 opposition -3286 Jan 24 j 14:58 9°**©**43'12 1°33'21 retrograde -3292 Jun 13 j 18:38 28°₹22'02 min. Earth dist. -3286 Jan 25 j 10:19 9°**©**36'55 4.40233 AU opposition -3292 Aug 12 j 20:03 23°る18'28 -1°-49'-43 direct -3286 Mar 28 j 00:28 4°9540'05 min. Earth dist. -3292 Aug 11 j 19:06 23°**♂**26'52 4.00236 AU evening set -3286 Aug 02 j 10:54 22°529'54 -3292 Oct 09 j 21:00 18° ₹24'00 max. Earth dist. -3286 Aug 13 j 19:29 24°559'00 6.40109 AU direct -3291 Jan 08 j 16:41

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3286 in astronomical counting style is the year 3287 BCE in historical counting style. -3286 Aug 15 j 07:51 25°5518'59 1°15'16 retrograde -3280 Jun 18 j 23:12 3°≈36'41 conjunction -3286 Aug 15 j 07:48 25°518'57 -3280 Aug 07 j 02:19 30°Rる minimum elong 1°15'22 -3286 Aug 28 j 01:34 28°506'33 min. Earth dist. -3280 Aug 16 j 21:08 28°る41'56 4.00758 AU morning rise -3286 Sep 05 j 18:54 -3280 Aug 18 j 00:28 28°₹32'41 -1°-53'-33 0 $^{\circ}\Omega$ opposition -3286 Dec 17 j 13:47 15°Ω-3280 Oct 15 j 00:02 23°る37'53 direct -3286 Dec 26 j 11:53 $15^{\circ}\Omega07'32$ -3280 Dec 18 j 11:51 retrograde 0°≈ -3285 Jan $04\,\mathrm{j}\ 10:13$ 15°R. € Ω -3279 Feb 17 j 02:45 evening set 12°≈58'37 1°57'29 -3279 Feb 25 j 16:46 opposition -3285 Feb 25 j 01:44 10°Ω15'48 15°≈ min. Earth dist. -3285 Feb 26 j 07:24 10° Ω06'19 4.38673 AU direct -3285 Apr 28 j 18:21 5°**Ω**14'30 conjunction -3279 Mar 02 j 14:46 16°≈09'43 -1°-20'-4 -3285 Jul 25 j 16:15 15°**Ω** minimum elong -3279 Mar 02 j 14:46 16°≈09'44 1°20'09 -3285 Sep 02 j 11:49 23°**Ω**08'00 -3279 Mar 04 j 13:54 evening set max. Earth dist. 16°**≈**37'35 6.02745 AU -3285 Sep 13 j 05:36 $25^{\circ}\Omega$ 31'11 6.35564 AU -3279 Mar 16 j 05:34 max. Earth dist. morning rise 19°≈22'11 -3279 May 03 j 15:26 0°**)**€ conjunction -3285 Sep 15 j 02:26 25° **Ω**56'11 1°20'27 retrograde -3279 Jul 25 j 04:54 9°**∺**23'39 minimum elong -3285 Sep 15 j 02:27 $25^{\circ} \Omega 56'12$ 1°20'31 opposition -3279 Sep 22 j 19:44 4°**)** 18′22 -1°-54'-31 morning rise -3285 Sep 27 j 15:06 28°**Ω**43'30 min. Earth dist. -3279 Sep 21 j 13:42 4°**¥**28'37 4.06509 AU -3285 Oct 03 j 09:41 0° M -3279 Oct 31 j 09:11 30°R≈ 29°≈20′26 retrograde -3284 Jan 27 j 16:26 16° Mp 10'07 direct -3279 Nov 20 j 01:19 opposition -3284 Mar 28 j 14:08 11° **m** 18'26 1°48'53 -3279 Dec 09 j 19:26 0°\ min. Earth dist. -3284 Mar 29 j 21:49 11° m 08'21 4.31456 AU evening set -3278 Mar 26 j 02:36 18° **\(\)** 26'44 direct -3284 May 29 j 20:45 6° m 19'41 evening set -3284 Oct 02 j 15:46 24° m 28'06 conjunction -3278 Apr 08 j 20:01 21°¥36'26 -1°-6'-30 -3284 Oct 13 j 14:19 26° m 57'19 max. Earth dist. 6.26249 AU minimum elong max. Earth dist. -3278 Apr 10 j 17:16 22°**)** €02'31 6.11246 AU -3284 Oct 15 j 04:56 27° m 19'21 -3278 Apr 22 j 14:47 24° **)** 46'35 conjunction 1°02'25 morning rise -3284 Oct 15 j 04:59 27° m 19'23 -3278 May 15 j 23:33 $0^{\circ}\Upsilon$ minimum elong 1°02'25 -3284 Oct 26 j 22:53 0°**♀** -3278 Aug 28 j 11:22 13°Υ55'00 retrograde -3284 Oct 27 j 17:17 0°**£**10'26 -3278 Oct 26 j 22:23 8°**Y**51'13 -1°-14'-27 morning rise opposition 8°**Υ**′59'22 4.16805 AU -3283 Mar 01 j 14:27 18° **2**23'43 -3278 Oct 25 j 22:27 retrograde min. Earth dist. opposition -3283 May 01 j 15:49 13° **2**30'21 1°07'00 -3278 Dec 25 j 01:45 3°Y50'10 direct -3283 May 02 j 15:14 13°**£**22'52 4.20576 AU -3277 May 01 j 02:05 22°**Y**30'59 min. Earth dist. evening set -3283 Jul 01 j 21:23 8°**≗**34'34 direct -3277 May 14 j 20:13 25° **Y** 36'09 0° -30'-11 -3283 Nov 03 j 19:09 27°**೨**06'09 evening set conjunction $-3277 \text{ May } 14 \text{ j } 20:16 \quad 25^{\circ} \Upsilon 36'11 \quad 0^{\circ} 30'10$ minimum elong -3283 Nov 16 j 10:52 0°M 03'18 0°24'23 -3277 May 15 j 22:27 25°**Y**50'54 6.22555 AU conjunction max. Earth dist. -3283 Nov 16 j 10:54 -3277 May 28 j 13:39 28°**Y**40'44 minimum elong 0°ML03'19 0°24'20 morning rise max. Earth dist. -3283 Nov 15 j 12:11 29°**⊆**50'02 6.14811 AU -3277 Jun 03 j 12:32 0°**႘** -3283 Nov 16 j 05:13 0°M -3277 Aug 26 j 23:41 15°**8** morning rise -3283 Nov 29 j 03:49 3°ML01'16 retrograde -3277 Sep 29 j 22:55 16°**8**49'16 -3282 Jan 24 j 11:56 15°M -3277 Nov 02 j 15:33 15°R₩ retrograde -3282 Apr 06 j 10:37 22°Ml12'28 -3277 Nov 28 j 10:35 11°848'54 0°-11'-59 opposition -3282 Jun 06 j 08:46 17°ML15'51 0°00'40 min. Earth dist. -3277 Nov 28 j 01:37 11°**8**51'55 4.27983 AU opposition min. Earth dist. -3282 Jun 06 j 15:31 17°ML13'40 4.09389 AU direct -3276 Jan 27 j 21:53 6°**8**45'49 desc. node -3282 Jun 10 j 00:24 16°ML47'29 -3276 Feb 08 j 08:15 6°**8**58'18 asc. node -3282 Jun 24 j 13:09 15°RML -3276 Apr 15 i 12:36 15°8 -3282 Aug 05 i 05:54 12°M22'17 direct evening set -3276 Jun 03 j 10:58 25°**8**00'50 -3282 Sep 15 i 02:54 15°ML -3276 Jun 17 j 00:17 27°**8**59'43 0°14'33 -3282 Dec 01 i 22:47 0°×7 conjunction minimum elong -3282 Dec 07 j 14:02 1°**₹**19'40 -3276 Jun 17 i 00:16 27° \$59'42 0°14'39 evening set behind sun begin -3276 Jun 16 j 21:04 27°857'57 -3282 Dec 20 j 11:42 4°**₹**¹23'38 0°-23'-17 behind sun end -3276 Jun 17 j 03:28 28°**8**01'27 conjunction -3282 Dec 20 j 11:40 4°**×**¹23'37 max. Earth dist. -3276 Jun 17 j 02:05 28° 800'42 6.32806 AU minimum elong 0°23'24 -3276 Jun 26 j 02:42 0°**Ⅱ** max. Earth dist. -3282 Dec 20 j 16:09 4°**∡**¹26'17 6.04958 AU morning rise -3281 Jan 02 j 11:46 7°**₹**29'05 morning rise -3276 Jun 30 j 10:58 0°**I**57'12 retrograde -3281 May 13 j 15:51 27°**尽** 30'53 retrograde -3276 Oct 30 j 01:38 18°**Ц**19'39 opposition -3281 Jul 13 j 04:03 22°**х** 30'21 -1°-8'-54 opposition -3276 Dec 28 j 20:55 13°**Ц**23'13 0°51'18 min. Earth dist. -3281 Jul 12 j 15:39 22°**х** 34'27 4.01842 AU min. Earth dist. -3276 Dec 29 j 03:21 13°**Д**21'06 4.36549 AU

direct

evening set

conjunction

morning rise

retrograde

max. Earth dist.

minimum elong

-3275 Feb 28 j 11:56

-3275 Jul 23 j 06:52

-3275 Aug 01 j 11:54

-3275 Jul 06 j 05:58 26° **1**16'43

-3275 Nov 29 j 20:09 19°500'44

8°**Ⅲ**19'34

-3275 Jul 18 j 11:57 28°**耳**57'06 6.39004 AU

0ംខ

2°900'35

-3275 Jul 19 j 10:33 29°**Ⅲ**09'28 0°53'45

-3275 Jul 19 j 10:30 29°**Ⅲ**09'26 0°53'52

-3281 Sep 09 j 19:41 17°**√**37'16

-3280 Jan 25 j 09:58 10°る03'09

-3280 Jan 26 j 15:46 10°**♂**20'58

-3280 Feb 07 j 18:08 13°**♂**14'03

0°ರ

-3280 Jan 25 j 10:01 10°♂03'11 -1°-3'-36

6°**る**54'07

1°03'43

6.00317 AU

-3281 Dec 13 j 06:46

-3280 Jan 12 j 05:24

-3280 May 01 j 03:28

direct

evening set

conjunction

minimum elong

max. Earth dist.

morning rise

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3274 in astronomical counting style is the year 3275 BCE in historical counting style. -3274 Jan 28 j 23:51 14°507'30 1°38'28 conjunction -3268 Jan 30 i 14:00 15°る13'43 -1°-7'-38 opposition -3274 Jan 29 j 21:43 14°500'26 4.40101 AU -3268 Jan 30 j 13:57 15°る13'42 1°07'46 min. Earth dist. minimum elong -3274 Apr 01 j 11:24 9°9504'37 -3268 Jan 31 j 23:58 15°る34'01 direct max. Earth dist. 6.00467 AU -3268 Feb 12 j 22:54 18°₹24'52 -3274 Aug 06 j 20:18 26°555'17 evening set morning rise -3268 Apr 05 j 14:49 max. Earth dist. -3274 Aug 18 j 01:09 29°522'40 6.39514 AU 0°≈ 8°≈46′08 -3268 Jun 24 j 03:25 retrograde -3274 Aug 19 j 16:11 29°5544'09 4.01376 AU conjunction 1°17'19 min. Earth dist. -3268 Aug 21 j 23:16 3°≈51'05 -3274 Aug 19 j 16:09 29°5544'08 minimum elong 1°17'24 opposition -3268 Aug 23 j 02:39 3°**≈**41'49 -1°-56'-28 -3274 Aug 20 j 21:00 $0^{\circ}\Omega$ -3268 Sep 23 j 05:00 30°Rる 28°る46'37 morning rise -3274 Sep 01 j 09:05 2°**£**31'36 direct -3268 Oct 20 j 02:59 -3274 Nov 04 j 16:47 15°**Ω** -3268 Nov 16 j 00:50 0°≈ -3274 Dec 30 j 23:35 19°**Ω**35'44 retrograde -3267 Feb 08 j 23:10 15°**≈** -3267 Feb 22 j 07:08 18°≈05'37 -3273 Feb 27 j 12:29 15°RΩ evening set opposition -3273 Mar 01 j 14:16 14°Ω44'06 1°58'17 min. Earth dist. -3273 Mar 02 j 20:23 14° **Ω**34'29 4.37685 AU conjunction -3267 Mar 07 j 19:57 21°≈16'38 -1°-19'-55 direct -3273 May 03 j 05:19 9°**Ω**43'07 minimum elong -3267 Mar 07 j 19:57 21°≈16'38 1°20'01 -3273 Jul 04 j 12:53 15°**Ω** max. Earth dist. -3267 Mar 09 j 19:29 21°≈44'37 6.03756 AU evening set -3273 Sep 06 j 21:16 27° **Ω**39'01 morning rise -3267 Mar 21 j 11:34 24°≈28'56 -3273 Sep 17 j 10:19 0°m -3267 Apr 14 j 16:12 0°**)**€ max. Earth dist. -3273 Sep 17 j 16:28 0° Mp 03'26 6.34268 AU retrograde -3267 Jul 30 j 01:33 14° + 23'54 min. Earth dist. -3267 Sep 26 j 09:48 9°**升**29'03 4.07820 AU conjunction -3273 Sep 19 i 11:33 0° m 27'33 1°19'15 opposition -3267 Sep 27 i 16:07 9°**)** 18'42 -1°-51'-3 minimum elong -3273 Sep 19 j 11:34 0° m 27'33 1°19'18 direct -3267 Nov 24 i 23:12 4°**)**€20'18 -3273 Oct 01 i 23:46 3° m 15'13 evening set -3266 Mar 31 j 04:34 23° **€** 23'18 morning rise retrograde -3272 Feb 01 j 09:49 20° mp 47'59 -3272 Apr 02 j 08:13 15° m 56'10 1°44'48 -3266 Apr 13 j 22:21 26° ¥ 32'30 -1°-2'-30 opposition conjunction -3272 Apr 03 j 15:02 15° Mp 46'23 4.29936 AU -3266 Apr 13 j 22:25 26° ¥ 32'32 1°02'31 min. Earth dist. minimum elong -3272 Jun 03 j 11:52 10° m 57'55 -3266 Apr 15 j 16:28 26° **)** € 56'42 direct max. Earth dist. 6.12745 AU -3272 Oct 07 j 04:03 29° m 09'30 -3266 Apr 27 j 17:18 29° **₭**42'02 morning rise evening set -3266 Apr 29 j 00:52 0°**Υ**° -3272 Oct 10 j 20:49 0∘**⊽** -3272 Oct 18 j 03:31 1°**2**39'52 6.24638 AU -3266 Sep 02 j 03:07 18°**Y**42'12 max. Earth dist. retrograde -3266 Oct 31 j 13:14 13°**Y**38'47 -1°-6'-33 opposition -3272 Oct 19 j 17:12 -3266 Oct 30 j 16:02 13°**Υ**46'00 4.18324 AU conjunction 2°**2**01'26 0°58'01 min. Earth dist. -3272 Oct 19 j 17:15 2°**2**01'28 0°58'00 -3266 Dec 29 j 21:31 8°**Y**37'20 minimum elong direct -3272 Nov 01 j 06:06 4°**⊆**53'24 $-3265 \text{ May } 05 \text{ j } 23:15 \quad 27^{\circ} \Upsilon 14'39$ morning rise evening set -3265 May 18 j 07:04 retrograde -3271 Mar 06 j 14:09 23°**♀**14'28 0°8 opposition -3271 May 06 j 15:44 18°**2**20'39 0°58'37 min. Earth dist. -3271 May 07 j 12:44 18°**△**13'56 4.18977 AU conjunction -3265 May 19 j 17:11 0°819'06 0°-24'-6 direct -3271 Jul 06 j 17:12 13°**£**25'13 minimum elong -3265 May 19 j 17:13 0°819'08 0°24'03 -3271 Oct 30 j 20:13 max. Earth dist. -3265 May 20 j 17:00 0°832'27 6.23989 AU 0°M evening set -3271 Nov 08 j 11:59 2°M00'02 morning rise -3265 Jun 02 j 09:52 3°**8**22'47 max. Earth dist. -3271 Nov 20 j 10:43 4°ML47'40 -3265 Jul 29 j 14:55 15°8 6.13385 AU -3265 Oct 04 j 08:08 21°**8**24'20 retrograde -3271 Nov 21 j 04:32 4°ML58'06 0°17'49 conjunction opposition -3271 Nov 21 j 04:33 4°**ጤ**58'07 min. Earth dist. -3265 Dec 02 j 13:34 16°**8**27'03 4.29218 AU minimum elong 0°17'46 -3271 Dec 03 j 22:12 morning rise 7°M57'02 -3265 Dec 13 i 13:15 15°R8 -3270 Jan 04 i 05:58 15°M asc. node -3265 Dec 19 j 05:17 14°817'32 retrograde -3270 Apr 11 j 15:42 27° ML 15'25 direct -3264 Feb 01 i 11:04 11°**8**21'18 desc. node -3270 Apr 19 j 03:13 27° ML10'08 -3264 Mar 22 i 16:07 15°8 -3270 Jun 11 j 12:59 22°ML18'16 0°-9'-40 -3264 Jun 08 i 03:26 29°\(\mathbb{Z}\)33'59 opposition evening set min. Earth dist. -3270 Jun 11 j 17:09 22°ML16'55 4.08253 AU -3264 Jun 10 j 03:01 $\Pi^{\circ}0$ direct -3270 Aug 10 j 06:10 17° ML 24'54 -3270 Nov 14 j 15:05 -3264 Jun 21 j 15:36 2°II32'02 0°20'40 0°×7 conjunction 2°**Ⅲ**32′02 -3270 Dec 12 j 12:31 6°**х** 24'33 minimum elong -3264 Jun 21 j 15:34 0°20'45 evening set max. Earth dist. -3264 Jun 21 j 12:29 2°**Ⅲ**30′20 6.33747 AU -3264 Jul 05 j 01:13 conjunction -3270 Dec 25 j 10:53 9°**₹**29'12 0°-29'-52 morning rise 5°**Ⅲ**28'40 minimum elong -3270 Dec 25 j 10:51 9°**∡**29'11 0°29'59 retrograde -3264 Nov 03 j 11:08 22°**Ⅱ**47'17 -3270 Dec 25 j 18:00 9°**∡**³33'26 6.04186 AU -3263 Jan 02 j 06:02 17°**II**51'23 0°59'15 max. Earth dist. opposition -3269 Jan 07 j 12:09 12°**尽** 35'28 -3263 Jan 02 j 15:43 17°**I**I48'12 4.37146 AU morning rise min. Earth dist. -3269 Apr 06 j 20:14 0°る -3263 Mar 05 j 01:14 12°**Ⅲ**47'45 direct 2°る41'18 -3263 Jul 07 j 08:45 retrograde -3269 May 18 j 21:08 0ಂತಾ -3263 Jul 10 j 18:19 -3269 Jun 30 j 02:07 30°R.✓ evening set 0°9544'11 opposition -3269 Jul 18 j 09:08 27° **₹** 40'08 -1°-17'-17 min. Earth dist. -3269 Jul 17 j 17:33 27°**х** 45'18 4.01525 AU conjunction -3263 Jul 23 j 21:47 3°**5**36'22 0°58'12 direct -3269 Sep 14 j 21:25 22° ₹ 46'54 minimum elong -3263 Jul 23 j 21:44 3°936'20 0°58'20 -3269 Nov 23 j 02:41 -3263 Jul 22 j 20:58 3°522'47 6.39197 AU 0°ਤ max. Earth dist. -3268 Jan 17 j 08:17 12°**⋜**04'18 -3263 Aug 05 j 21:49 6°9526'54 evening set morning rise

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3263 in astronomical counting style is the year 3264 BCE in historical counting style. -3263 Dec 04 i 04:17 23°526'51 min. Earth dist. -3257 Jul 22 j 18:32 2°る48'55 4.01370 AU retrograde -3262 Feb 02 j 10:10 18°533'56 1°43'08 -3257 Aug 14 j 05:17 30°R ✓ opposition min. Earth dist. -3262 Feb 03 j 08:39 18°526'41 4.39922 AU -3257 Sep 19 j 21:28 27° ₹ 50'03 direct -3257 Oct 26 j 03:45 0°궁 direct -3262 Apr 05 j 21:38 13°931'19 -3256 Jan 22 j 08:42 17°**⋜**07'53 -3262 Aug 04 j 22:18 0 $^{\circ}\Omega$ evening set evening set -3262 Aug 11 j 06:33 1°**Ω**22'45 -1°-11'-3 max. Earth dist. -3256 Feb 04 j 15:19 20°る17'37 -3262 Aug 22 j 09:56 3°**Ω**49'38 6.38981 AU conjunction minimum elong -3256 Feb 04 j 15:16 20°**궁**17'35 1°11'10 conjunction -3262 Aug 24 j 01:23 4°Ω11'24 1°18'59 max. Earth dist. -3256 Feb 06 j 02:51 20°る38'48 6.00672 AU minimum elong -3262 Aug 24 j 01:21 4°**Ω**11'23 1°19'04 morning rise -3256 Feb 18 j 01:20 23°중29'06 6°**Ω**58'42 morning rise -3262 Sep 05 j 17:21 -3256 Mar 17 j 09:46 0°**≈** -3262 Oct 14 j 04:38 15°**Ω** -3256 Jun 29 j 03:04 retrograde 13°≈48'41 -3261 Jan 04 j 12:56 24°**Ω**05'50 retrograde min. Earth dist. -3256 Aug 26 j 20:37 8°**≈**53'53 4.01948 AU opposition -3261 Mar 06 j 04:09 19°**Ω**14'22 1°58'27 opposition -3256 Aug 28 j 01:20 8°≈44'09 -1°-58'-25 min. Earth dist. -3261 Mar 07 j 11:08 19°**Ω**04'29 4.36851 AU direct -3256 Oct 25 j 00:35 3°≈48'34 -3261 Apr 15 j 01:32 15°RΩ -3255 Jan 22 j 07:18 15°≈ direct -3261 May 07 j 19:15 14°**Ω**13'50 evening set -3255 Feb 27 j 08:48 23°≈06'26 -3261 May 30 j 13:43 15°**Ω** -3261 Sep 01 j 09:03 0° m conjunction -3255 Mar 12 j 22:29 26°≈17'25 -1°-19'-12 evening set -3261 Sep 11 j 07:27 2° m 11'24 minimum elong -3255 Mar 12 j 22:30 26°≈17'26 1°19'17 max. Earth dist. -3261 Sep 22 j 01:49 4° m/35'48 6.33204 AU max. Earth dist. -3255 Mar 14 j 21:06 26°≈44'48 6.04632 AU morning rise -3255 Mar 26 i 14:49 29°≈29'37 conjunction -3261 Sep 23 j 21:14 5° m 00'09 1°17'36 -3255 Mar 28 i 19:07 0°**)**€ minimum elong -3261 Sep 23 j 21:16 5° m 00'10 1°17'39 retrograde -3255 Aug 03 j 21:20 19°¥ 19'00 morning rise -3261 Oct 06 j 09:20 7° m 48'12 min. Earth dist. -3255 Oct 01 j 05:32 14°\\$23'42 4.08894 AU -3260 Feb 06 j 02:52 25° m 26'20 -3255 Oct 02 j 10:11 14° ¥ 13'54 -1°-46'-55 retrograde opposition opposition -3260 Apr 07 j 02:37 20° m 34'19 1°40'06 -3255 Nov 29 j 20:30 9°**)** 15′01 direct -3260 Apr 08 j 07:41 20° m 25'04 4.28718 AU evening set -3254 Apr 05 j 04:32 28° ¥ 15'46 min. Earth dist. -3260 Jun 08 j 03:00 15° M 36'30 -3254 Apr 12 j 19:02 direct -3260 Sep 24 j 12:41 0∘ಹ 3°**≏**50'14 1°**Υ**'24'40 0°-58'-9 -3260 Oct 11 j 16:01 -3254 Apr 18 j 22:53 evening set conjunction -3260 Oct 22 j 19:37 -3254 Apr 18 j 22:57 1°Y24'43 0°58'10 max. Earth dist. 6°**£**23'21 6.23388 AU minimum elong -3254 Apr 20 j 16:09 1°**Υ**48'19 max. Earth dist. 6.13958 AU -3260 Oct 24 j 05:28 6°**-**42'47 -3254 May 02 j 17:50 4°**Υ**33'42 conjunction 0°53'17 morning rise -3254 Sep 06 j 16:37 23°**Υ**26'42 -3260 Oct 24 j 05:31 minimum elong 6°**£**42'49 0°53'17 retrograde -3254 Nov 04 j 06:33 18°**Y**30'31 4.19556 AU -3260 Nov 05 j 18:38 morning rise 9°**£**35'27 min. Earth dist. -3259 Mar 11 j 13:13 28° **2**03'04 -3254 Nov 05 j 02:32 18° Υ 23'44 0° -58'-23 retrograde opposition opposition -3259 May 11 j 14:50 23°**♀**08'54 0°49'56 direct -3253 Jan 03 j 13:19 13°**Y**22'00 min. Earth dist. -3259 May 12 j 10:08 23°**♀**02'43 4.17767 AU -3253 May 01 j 23:47 0°8 direct -3259 Jul 11 j 13:09 18°**♀**13'52 evening set -3253 May 10 j 19:43 1°**8**56'55 -3259 Oct 13 j 17:16 0°M -3259 Nov 13 j 03:41 6°M50'43 -3253 May 24 j 13:06 5°**8**00'42 0°-17'-56 evening set conjunction -3253 May 24 j 13:08 5°**8**00'43 0°17'53 minimum elong -3259 Nov 25 j 20:42 9°**ጤ**49'30 0°11'16 max. Earth dist. -3253 May 25 j 08:07 5°811'20 6.25163 AU conjunction -3259 Nov 25 j 20:43 9°**ጤ**49'30 0°11'12 -3253 Jun 07 j 05:20 8°**8**03'39 minimum elong morning rise -3259 Nov 25 j 14:42 -3253 Jul 09 i 16:08 15°8 behind sun begin 9°M46'00 -3253 Oct 08 j 18:39 25°\(259'13\) behind sun end -3259 Nov 26 i 02:43 9°M53'01 retrograde max. Earth dist. -3259 Nov 25 i 04:56 9°M40'14 6.12319 AU asc. node -3253 Oct 29 j 12:13 25°**8**16'46 morning rise -3259 Dec 08 i 15:24 12°M 49'19 opposition -3253 Dec 07 i 07:31 20°\(259'55\) 0°06'28 -3259 Dec 18 i 00:51 15°ML min. Earth dist. -3253 Dec 07 j 02:50 21°801'29 4.30243 AU desc. node -3258 Feb 27 j 10:14 28° ML46'15 direct -3252 Feb 06 j 02:15 15° 856'31 -3258 Mar 09 j 08:50 -3252 May 24 j 14:10 $0^{\circ}\Pi$ 0°×7 13'44 **ح**°2 -3252 Jun 12 j 19:13 4°**I**107'17 retrograde -3258 Apr 16 j 17:20 evening set -3258 May 25 j 07:43 30°RML opposition -3258 Jun 16 j 14:50 27°M 16'01 0°-19'-43 conjunction -3252 Jun 26 j 06:31 7°**Д**04'36 0°26'36 -3258 Jun 16 j 15:34 27°**M**.15'47 min. Earth dist. 4.07420 AU minimum elong -3252 Jun 26 j 06:29 7°**Ⅱ**04'35 0°26'42 -3252 Jun 26 j 01:53 direct -3258 Aug 15 j 03:36 22°M22'46 max. Earth dist. 7°**Ⅲ**02'03 6.34560 AU -3258 Oct 26 j 06:20 -3252 Jul 09 j 14:47 10°**Ⅲ**00′22 0°**√** morning rise -3258 Dec 17 j 08:56 11° ₹ 24'02 -3252 Nov 07 j 18:03 27°**Д**15'31 evening set retrograde -3251 Jan 06 j 15:22 22°**Ⅲ**20'03 1°06'47 opposition -3258 Dec 30 j 08:18 14° ₹29'19 0°-36'-4 -3251 Jan 07 j 01:55 22°**Ⅱ**16'35 conjunction min. Earth dist. 4.37710 AU minimum elong -3258 Dec 30 j 08:15 14° ₹29'17 0°36'11 direct -3251 Mar 09 j 12:35 17°**Ⅲ**16'30 max. Earth dist. -3258 Dec 30 j 20:06 14° ₹ 36'21 6.03661 AU -3251 Jun 20 j 17:11 0 \circ \odot morning rise -3257 Jan 12 j 10:24 17°**х** 36'12 evening set -3251 Jul 15 j 06:23 5°9511'49 -3257 Mar 10 j 12:58 0°ಕ max. Earth dist. -3251 Jul 27 j 04:36 7°9548'05 6.39455 AU -3257 May 24 j 01:25 7°る45'06 retrograde -3257 Jul 23 j 10:57 2°る43'27 -1°-24'-52 -3251 Jul 28 j 08:25 8°503'19 1°02'18 opposition conjunction

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3251 in astronomical counting style is the year 3252 BCE in historical counting style. -3251 Jul 28 j 08:22 8°503'18 1°02'24 morning rise -3245 Jan 17 i 10:55 22° ₹ 40'42 minimum elong -3251 Aug 10 i 07:19 10°553'14 -3245 Feb 18 j 10:35 0°ಕ morning rise -3251 Dec 08 j 13:59 27°552'36 -3245 May 29 j 06:11 12°る54'10 retrograde retrograde -3250 Feb 06 j 20:32 22°559'57 1°47'10 -3245 Jul 28 j 14:54 7°**る**52'03 opposition -1°-32'-1 opposition -3245 Jul 27 j 19:36 -3250 Feb 07 j 21:11 22°552'00 4.39862 AU min. Earth dist. min. Earth dist. 7°**る**58'29 4.00843 AU direct -3250 Apr 10 j 10:49 17°557'30 direct -3245 Sep 24 j 21:33 2°る58'29 -3244 Jan 27 j 12:34 22°♂18'17 -3250 Jul 19 j 06:13 $0^{\circ}\Omega$ evening set evening set -3250 Aug 15 j 15:48 5°**Ω**48'47 -1°-14'-1 max. Earth dist. -3250 Aug 26 j 17:35 8°**Ω**15′00 6.38574 AU conjunction -3244 Feb 09 j 20:13 25°**⋜**28'30 minimum elong -3244 Feb 09 j 20:11 25°る28'29 1°14'07 conjunction -3250 Aug 28 j 09:48 8°**Ω**37'12 1°20'10 max. Earth dist. -3244 Feb 11 j 09:50 25°**궁**50'55 6.00596 AU -3250 Aug 28 j 09:47 -3244 Feb 23 j 07:13 28°₹40′26 minimum elong 8°**Ω**37'11 1°20'16 morning rise -3250 Sep 10 j 00:53 11°**Ω**24'18 morning rise -3244 Feb 28 j 22:28 0°≈ -3250 Sep 26 j 15:42 15°**Ω** -3244 May 13 j 21:46 15°≈ retrograde -3249 Jan 08 j 23:20 $28^{\circ}\Omega$ 33'54 retrograde -3244 Jul 04 j 07:05 18°≈59'14 opposition -3249 Mar 10 j 17:11 23°**Ω**42'21 1°57'54 -3244 Aug 25 j 00:53 15°R≈ min. Earth dist. -3249 Mar 11 j 23:28 23°Ω32'42 4.36115 AU min. Earth dist. -3244 Aug 31 j 22:19 14°≈04'18 4.02342 AU direct -3249 May 12 j 06:38 18°**Ω**42'07 opposition -3244 Sep 02 j 03:15 13°≈54'28 -1°-59'-33 -3249 Aug 15 j 12:51 0° m direct -3244 Oct 30 j 03:37 8°≈58'29 evening set -3249 Sep 15 j 16:07 6° Mp 40'47 -3244 Dec 31 j 19:57 15°≈ max. Earth dist. -3249 Sep 26 j 11:17 9° 1006'01 6.32177 AU evening set -3243 Mar 04 j 14:45 28°≈15'52 -3243 Mar 12 j 01:01 0°**∀** conjunction -3249 Sep 28 i 05:33 9° m 29'47 1°15'30 minimum elong -3249 Sep 28 i 05:35 9° m 29'48 1°15'32 conjunction -3243 Mar 18 j 05:27 1°**升**26'55 -1°-17'-51 morning rise -3249 Oct 10 j 17:26 12° m 18'11 -3243 Mar 18 i 05:29 1°**¥**26'56 1°17'55 minimum elong -3248 Feb 06 j 14:29 max. Earth dist. -3243 Mar 20 j 05:56 1°**)** 55'18 6.05477 AU 0∘ଫ -3248 Feb 10 j 20:06 0°**£**01'41 -3243 Mar 31 j 22:23 4°**)**€39'00 morning rise retrograde -3248 Feb 15 j 01:40 30°R M -3243 Aug 08 j 19:57 24° **\(22'**17 retrograde opposition -3248 Apr 11 j 20:12 25° m 09'27 1°34'48 -3243 Oct 06 j 03:00 19°**米**27'09 4.10119 AU min. Earth dist. -3243 Oct 07 j 07:28 19° **X** 17'25 -1°-41'-51 -3248 Apr 13 j 01:19 25° m 00'12 4.27425 AU min. Earth dist. opposition -3248 Jun 12 j 18:51 20° m 12'00 -3243 Dec 04 j 19:31 14° **H** 18'13 direct direct -3248 Sep 06 j 23:45 -3242 Mar 26 j 19:02 0∘ಹ $0^{\circ}\Upsilon$ -3242 Apr 10 j 08:23 8°**£**28'07 3° Y 16'06evening set -3248 Oct 16 j 02:55 evening set max. Earth dist. -3248 Oct 27 j 07:21 11°**೨**02'14 6.21934 AU 6°**Υ**'24'25 0°-53'-16 -3242 Apr 24 j 02:48 conjunction -3248 Oct 28 j 16:35 11°**2**21'22 0°48'15 -3242 Apr 24 j 02:52 6°**Υ**24'28 0°53'16 conjunction minimum elong 6°**Ƴ**46'19 -3248 Oct 28 j 16:38 11°**2**21'24 -3242 Apr 25 j 17:09 minimum elong 0°48'14 max. Earth dist. 6.15486 AU morning rise -3248 Nov 10 j 06:24 14°**2**14'54 morning rise -3242 May 07 j 21:53 9°**Υ**32'48 -3247 Jan 31 j 20:01 0°M retrograde -3242 Sep 11 j 07:52 28°**Y**17'15 retrograde -3247 Mar 16 j 10:42 2°M49'59 opposition -3242 Nov 09 j 18:31 23°**Y**14'44 0°-49'-39 -3247 Apr 29 j 19:17 30°R **≏** min. Earth dist. -3242 Nov 09 j 00:01 23°**Υ**21'00 4.21255 AU -3247 May 16 j 13:11 27°**♀**55'21 0°40'55 -3241 Jan 08 j 09:52 18° Υ 12'44 opposition direct min. Earth dist. -3247 May 17 j 05:37 27°**2**50'05 4.16243 AU -3241 Apr 14 j 08:42 0° 8 -3247 Jul 16 j 06:20 23°**♀**00'36 -3241 May 15 j 17:49 6°**8**43'19 direct evening set -3247 Sep 24 j 03:23 0°M -3247 Nov 17 j 19:34 11° ML40'55 -3241 May 29 j 10:43 9°**8**46'08 0°-11'-35 evening set conjunction minimum elong -3241 May 29 j 10:44 9°**8**46'08 0°11'32 conjunction -3247 Nov 30 j 13:26 14° ML40'39 0°04'38 behind sun begin -3241 May 29 i 04:53 9°**8**42'53 minimum elong -3247 Nov 30 i 13:26 14° ML40'40 0°04'32 behind sun end -3241 May 29 j 16:35 9°849'23 behind sun begin -3247 Nov 30 i 05:34 14°M 36'02 max. Earth dist. -3241 May 30 j 04:33 9°856'03 6.26941 AU behind sun end -3247 Nov 30 j 21:19 14° ML45'17 -3241 Jun 12 j 01:50 12°**8**47'54 morning rise max. Earth dist. -3247 Nov 30 j 01:49 14°M 33'49 6.10872 AU -3241 Jun 22 j 02:49 15°8 -3247 Dec 01 j 22:16 15°M -3241 Sep 08 j 08:31 28°841'05 asc node -3241 Sep 24 j 02:29 morning rise -3247 Dec 13 j 08:56 17° ML41'30 $\mathbb{I}^{\circ 0}$ desc. node -3246 Jan 07 j 10:09 23°M24'38 retrograde -3241 Oct 13 j 04:03 0°**I**I35′21 -3246 Feb 08 j 23:01 0°×7 -3241 Nov 01 j 02:56 30°R₩ retrograde -3246 Apr 21 j 22:33 7°**∡**13'29 opposition -3241 Dec 11 j 18:37 25° \(\begin{aligned} \begin{aligned} \ 25\end{aligned} \\ 36'39 \quad 0°15'36 \end{aligned} \] -3246 Jun 21 j 17:27 2°**₹**15'14 0°-29'-45 min. Earth dist. -3241 Dec 11 j 15:20 25°**8**37'45 4.31958 AU opposition 2°**尽**15'27 4.06168 AU direct -3240 Feb 10 j 17:51 20° **8**33'14 min. Earth dist. -3246 Jun 21 j 16:46 -3246 Jul 09 j 16:11 30°RM -3240 May 06 j 11:30 Π °0 -3240 Jun 17 j 10:45 8°**Ⅲ**39'34 direct -3246 Aug 20 j 02:39 27°M22'04 evening set -3246 Sep 29 j 16:47 0°**∡**¹ evening set -3246 Dec 22 j 07:15 16° ₹26'45 conjunction -3240 Jun 30 j 20:35 11°**Ⅲ**35'42 0°32'20 minimum elong -3240 Jun 30 j 20:33 11°**II**35'41 0°32'26 conjunction -3245 Jan 04 j 07:33 19°**x** 32'52 0°-42'-7 max. Earth dist. -3240 Jun 30 j 11:36 11°**Ⅱ**30'47 6.36070 AU minimum elong -3245 Jan 04 j 07:30 19°**尽** 32'50 0°42'14 -3240 Jul 14 j 03:36 14°**Ⅲ**30'19 morning rise

-3240 Oct 10 j 08:22

max. Earth dist.

-3245 Jan 04 j 21:58 19° **₹** 41'28 6.02706 AU

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3240 in astronomical counting style is the year 3241 BCE in historical counting style. retrograde -3240 Nov 12 j 00:28 1°539'55 max. Earth dist. -3235 Dec 04 j 19:25 19° ML 23'42 6.08902 AU -3240 Dec 14 j 16:15 30°RII -3235 Dec 18 j 01:31 22° M 31'27 morning rise opposition -3239 Jan 10 j 23:20 26° **II** 44'54 1°13'44 -3234 Jan 20 j 02:03 0°×7 -3234 Apr 27 j 01:30 12° ₹ 13'01 min. Earth dist. -3239 Jan 11 j 12:33 26° **1**40'34 4.38924 AU retrograde -3239 Mar 14 j 01:16 21°**Ⅱ**41'23 -3234 Jun 26 j 19:15 7°**∡**14'14 direct opposition 0°-39'-26 -3239 Jun 02 j 12:07 -3234 Jun 26 j 15:13 0ംខಾ min. Earth dist. 7°**∡**15'34 4.04418 AU 2°**×**⁷21'10 evening set -3239 Jul 19 j 15:33 9°533'29 direct -3234 Aug 24 j 22:03 max. Earth dist. -3239 Jul 31 j 11:21 12°508'15 6.40260 AU evening set -3234 Dec 27 j 06:24 21° ₹ 31'22 conjunction -3239 Aug 01 j 16:24 12°524'08 1°05'54 conjunction -3233 Jan 09 j 07:48 24° **₹** 38'34 0°-47'-46 minimum elong -3239 Aug 01 j 16:21 12°524'06 1°06'00 minimum elong -3233 Jan 09 j 07:45 24°**х** 38'32 0°47'54 -3239 Aug 14 j 13:47 15°5513'09 -3233 Jan 10 j 01:56 24° **₹** 49'26 morning rise max. Earth dist. 6.01334 AU -3239 Nov 04 j 23:32 -3233 Jan 22 j 12:22 27° **₹** 47'32 $0^{\circ}\Omega$ morning rise retrograde -3239 Dec 12 j 17:54 2°**Ω**10′36 -3233 Jan 31 j 21:04 -3238 Jan 19 j 20:37 30°Rூ retrograde -3233 Jun 03 j 13:44 18°**⋜**06'55 opposition -3238 Feb 11 j 03:44 27°518'12 1°50'23 opposition -3233 Aug 02 j 19:37 13°る04'16 -1°-38'-23 min. Earth dist. -3238 Feb 12 j 05:07 27°510'03 4.40216 AU min. Earth dist. -3233 Aug 01 j 22:28 13°る11'22 4.00007 AU direct -3238 Apr 14 j 18:59 22°516'00 direct -3233 Sep 30 j 00:23 8°**る**10'26 -3238 Jul 01 j 02:03 $0^{\circ}\Omega$ evening set -3232 Feb 01 j 18:25 27°る33'16 evening set -3238 Aug 19 j 21:07 $10^{\circ}\Omega$ 05'59 -3232 Feb 12 j 01:17 max. Earth dist. -3238 Aug 30 j 19:23 12°**Ω**30'28 6.38421 AU conjunction -3232 Feb 15 i 03:21 0°≈44'07 -1°-16'-20 conjunction $-3238 \text{ Sep } 01 \text{ i } 14:00 \quad 12^{\circ} \Omega 54'02 \quad 1^{\circ} 20'50$ minimum elong -3232 Feb 15 i 03:20 0°≈44'06 1°16'27 minimum elong $-3238 \text{ Sep } 01 \text{ i } 14:00 \quad 12^{\circ} \Omega 54'01$ 1°20'56 max. Earth dist. -3232 Feb 16 i 21:19 1°≈09'06 6.00373 AU -3238 Sep 11 j 02:03 15°**Ω** morning rise -3232 Feb 28 j 15:25 3°≈56'36 $-3238 \text{ Sep } 14 \text{ j } 04:24 \quad 15^{\circ} \Omega 40'54$ -3232 Apr 18 j 17:54 15°≈ morning rise -3238 Nov 30 j 09:05 -3232 Jul 09 j 12:53 24°≈14'15 0°m retrograde -3237 Jan 13 j 08:00 2° m 52'37 -3232 Sep 06 j 00:19 19°≈19'30 4.02768 AU retrograde min. Earth dist. -3237 Feb 27 j 00:48 30°R**Ω** -3232 Sep 07 j 06:29 19°≈09'15 -1°-59'-39 opposition -3237 Mar 15 j 02:30 $28^{\circ}\Omega$ 01'06 1° 56'39 -3232 Oct 13 j 20:07 15°R≈ opposition -3237 Mar 16 j 10:45 $27^{\circ}\Omega$ 50'50 4.35447 AU -3232 Nov 04 j 06:20 14°≈12'48 min. Earth dist. direct -3237 May 16 j 16:31 23°**Ω**01'08 -3232 Nov 25 j 18:59 15°≈ direct -3237 Jul 27 j 22:42 0° M -3231 Feb 22 j 18:18 0°)(-3237 Sep 19 j 20:45 11° m 01'00 -3231 Mar 09 j 22:29 3°**¥**29′09 evening set evening set -3237 Sep 30 j 15:04 13° Mp 26'09 max. Earth dist. 6.31037 AU -3231 Mar 23 j 13:52 6°**)** 40'05 -1°-15'-50 conjunction -3237 Oct 02 j 10:01 13° m 50'22 1°13'02 conjunction minimum elong -3231 Mar 23 j 13:54 6°**¥**40'07 1°15'52 minimum elong -3237 Oct 02 j 10:03 13° m 50'23 1°13'03 max. Earth dist. -3231 Mar 25 j 13:46 7°**)**€08'04 6.06476 AU -3237 Oct 14 j 21:50 16° Mp 39'13 morning rise -3231 Apr 06 j 07:36 9°**¥**51'59 morning rise -3237 Dec 21 j 16:36 0°**♀** retrograde -3231 Aug 13 j 17:16 29°**₭**27'57 retrograde -3236 Feb 15 j 08:11 4°**£**28'46 min. Earth dist. -3231 Oct 11 j 01:10 24° ¥ 32'48 4.11545 AU -3236 Apr 13 j 07:15 30°R Mp -3231 Oct 12 j 05:29 24° **★** 23'07 -1°-35'-56 opposition -3236 Apr 16 j 09:46 29° Mp 36'18 1°29'07 -3231 Dec 09 j 20:48 19°**米**23'21 opposition direct min. Earth dist. -3236 Apr 17 j 13:40 29° m 27'25 -3230 Mar 08 j 06:46 $0^{\circ}\Upsilon$ 4.25875 AU direct -3236 Jun 17 j 04:09 24° M 39'09 -3230 Apr 15 j 12:34 8°Y17'13 evening set -3236 Aug 17 j 14:24 -3236 Oct 20 j 10:49 12° **2**59'02 -3230 Apr 29 i 07:15 11°**Υ**'24'52 0°-47'-56 evening set conjunction $-3230 \text{ Apr } 29 \text{ j } 07:18 \quad 11^{\circ} \Upsilon 24'54 \quad 0^{\circ} 47'55$ max. Earth dist. -3236 Oct 31 j 17:33 15°**2**35'05 6.20109 AU minimum elong -3230 Apr 30 j 20:43 11°γ′46'11 6.17207 AU max. Earth dist. conjunction -3236 Nov 02 j 00:54 15°**£**53'13 0°43'05 morning rise -3230 May 13 i 01:57 14° γ 32'20 -3236 Nov 02 i 00:57 15°**£**53'15 0°43'04 -3230 Aug 01 j 23:24 minimum elong 0°X -3236 Nov 14 j 15:17 18°**£**47'48 -3230 Sep 15 j 23:56 morning rise retrograde 3°\807'22 -3235 Jan 06 j 11:49 -3230 Oct 30 j 22:15 30°R℃ o°m. -3230 Nov 14 j 10:27 28°**Υ**05'18 0°-40'-31 retrograde -3235 Mar 21 j 09:26 7°**IL**32'01 opposition -3230 Nov 13 j 18:00 28°**Υ**10'51 opposition -3235 May 21 j 09:16 2°M36'59 0°31'54 min. Earth dist. 4.23047 AU min. Earth dist. -3235 May 22 j 01:11 2°M31'52 4.14251 AU direct -3229 Jan 13 j 07:09 23°**Y**°02'58 -3235 Jun 11 j 20:36 30°R. ← -3229 Mar 25 j 01:18 0°**8** -3235 Jul 20 j 22:27 27°**£**42'28 -3229 May 20 j 15:54 11°**8**28'55 direct evening set -3235 Aug 28 j 07:56 0°M -3235 Nov 16 j 02:59 15°M conjunction desc. node -3229 Jun 03 j 07:57 14°**8**30'40 0°05'04 -3235 Nov 18 j 18:56 15°M 37'15 minimum elong evening set -3235 Nov 22 j 10:04 16°M28'16 behind sun begin -3229 Jun 02 j 23:54 14°**8**26'14 behind sun end -3229 Jun 03 j 16:00 14°**8**35'07 conjunction -3235 Dec 05 j 04:50 19°M29'15 0°-2'-1 max. Earth dist. -3229 Jun 03 j 21:26 14°**8**38'08 6.28638 AU minimum elong -3235 Dec 05 j 04:48 19°M29'15 0°02'07 -3229 Jun 05 j 12:47 15°**8**

-3229 Jun 16 j 22:13 17°**8**31'20

-3229 Jul 18 j 02:50 24°809'38

morning rise

asc. node

-3235 Dec 04 j 20:45 19°M24'30

-3235 Dec 05 j 12:52 19°M33'59

behind sun begin

behind sun end

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3229 in astronomical counting style is the year 3230 BCE in historical counting style. -3229 Aug 19 j 02:38 Π °0 retrograde -3223 Mar 26 j 12:05 12°M29'53 -3229 Oct 17 j 13:45 5°**Ⅱ**11'17 -3223 May 26 j 11:58 7°M34'27 0°22'02 retrograde opposition -3229 Dec 16 j 06:04 0°II13'05 0°24'44 min. Earth dist. -3223 May 27 j 00:30 opposition 7°M30'25 4.12534 AU -3223 Jul 25 j 18:44 min. Earth dist. -3229 Dec 16 j 05:03 0°**П**13'25 4.33419 AU direct 2°M40'21 -3223 Sep 27 j 12:02 -3229 Dec 17 j 21:25 30°₹**८** desc. node 8°M38'53 -3223 Oct 29 j 17:55 -3228 Feb 15 j 09:49 25°809'30 direct 15°M -3228 Apr 14 j 09:11 -3223 Nov 27 j 06:50 21°M30'29 Π °0 evening set -3228 Jun 22 j 02:20 13°**II**12'27 evening set conjunction -3223 Dec 10 j 02:23 24°M232'28 0°-8'-55 conjunction -3228 Jul 05 j 11:01 16°**Ⅲ**07'37 0°37'58 minimum elong -3223 Dec 10 j 02:21 24°M32'27 0°09'01 minimum elong -3228 Jul 05 j 10:58 16°**Ⅲ**07'36 0°38'05 behind sun begin -3223 Dec 09 j 19:26 24°M28'22 -3228 Jul 04 j 23:40 16°**Ⅲ**01'24 -3223 Dec 10 j 09:16 24°M36'32 max. Earth dist. 6.37180 AU behind sun end -3228 Jul 18 j 16:31 19°**Ⅲ**01'11 -3223 Dec 09 j 21:00 24°M29'18 morning rise max. Earth dist. 6.07452 AU -3228 Sep 11 j 21:02 0ಂತಾ morning rise -3223 Dec 23 j 00:08 27°M235'47 retrograde -3228 Nov 16 j 08:21 6°906'57 -3222 Jan 02 j 06:57 0°**∡**¹ opposition -3227 Jan 15 j 09:03 1°9512'25 1°20'30 retrograde -3222 May 02 j 09:55 17°**∡**¹24'47 min. Earth dist. -3227 Jan 16 j 00:09 1°9507'30 4.39617 AU opposition -3222 Jul 02 j 02:00 12°**尽** 25'27 0°-49'-17 -3227 Jan 24 j 17:36 30°R II min. Earth dist. -3222 Jul 01 j 19:17 12°**尽**27'39 4.03398 AU 26°**Ⅱ**09'04 direct -3227 Mar 18 j 13:53 direct -3222 Aug 30 j 01:38 7°**∡**³32'26 -3227 May 10 j 05:15 0ಂತಾ evening set -3221 Jan 01 j 09:27 26° ₹ 45'17 evening set -3227 Jul 24 j 02:40 13°559'40 max. Earth dist. -3227 Aug 04 i 16:54 16°531'31 6.40457 AU conjunction -3221 Jan 14 i 11:59 29° ₹ 53'11 0°-53'-17 minimum elong -3221 Jan 14 j 11:56 29° ₹ 53'09 0°53'24 conjunction -3227 Aug 06 i 02:06 16°5549'41 1°09'17 -3221 Jan 14 i 23:22 0°정 minimum elong -3227 Aug 06 j 02:03 16°549'40 1°09'23 max. Earth dist. -3221 Jan 15 j 11:27 0°**る**07'14 6.00849 AU -3227 Aug 18 j 22:26 19°538'10 -3221 Jan 27 j 17:35 3°**ප**02'49 morning rise morning rise -3227 Oct 09 j 14:16 -3221 Jun 08 j 22:17 23°る24'05 0 $^{\circ}\Omega$ retrograde -3227 Dec 17 j 04:07 -3221 Aug 07 j 02:34 18°중28'51 4.00155 AU retrograde 6°**Ω**35'54 min. Earth dist. -3221 Aug 08 j 01:55 18°ਰ21'01 -1°-44'-4 -3226 Feb 15 j 14:40 1°**Ω**43'45 1°53'14 opposition opposition -3226 Feb 16 j 18:15 1°**Ω**34'54 4.39929 AU -3221 Oct 05 j 04:39 13°る26'57 min. Earth dist. direct -3226 Mar 01 j 08:49 30°Rூ -3220 Jan 26 j 00:11 0°≈ 2°≈49'07 -3226 Apr 19 j 07:22 26°541'45 -3220 Feb 07 j 00:55 direct evening set -3226 Jun 06 j 20:58 0°**Ω** -3220 Feb 20 j 10:38 -3226 Aug 24 j 06:07 14°**Ω**32'30 6°≈00'01 -1°-18'-7 evening set conjunction -3226 Aug 26 j 08:09 15°**Ω** -3220 Feb 20 j 10:37 minimum elong 6°≈00'00 1°18'14 6°≈25'32 6.01095 AU -3226 Sep 04 j 03:41 $16^{\circ}\Omega$ 56'52 6.37665 AU -3220 Feb 22 j 05:36 max. Earth dist. max. Earth dist. -3220 Mar 04 j 23:42 morning rise 9°≈12'31 conjunction -3226 Sep 05 j 22:24 17° Ω 20'31 1°21'09 -3220 Mar 30 j 04:23 15°≈ -3226 Sep 05 j 22:24 17°**Ω**20'31 1°21'13 retrograde -3220 Jul 14 j 13:19 29°≈25'16 minimum elong morning rise -3226 Sep 18 j 11:59 $20^{\circ}\Omega07'24$ min. Earth dist. -3220 Sep 11 j 00:26 24°≈30'42 4.03995 AU -3226 Nov 05 j 16:32 opposition -3220 Sep 12 j 07:37 24°≈20'04 -1°-58'-49 retrograde -3225 Jan 17 j 20:40 7° m 23'18 -3220 Nov 09 j 08:39 19°≈23'09 direct -3225 Mar 19 j 17:12 2° m 31'48 1°54'47 -3219 Feb 04 j 08:31 0°**)**€ opposition min. Earth dist. -3225 Mar 21 j 00:57 2° m 21'43 4.34275 AU -3219 Mar 15 j 03:30 8°**)**₹35'53 evening set -3225 Apr 09 j 14:07 30°R**Ω** -3225 May 21 i 04:26 $27^{\circ}\Omega$ 32'15 -3219 Mar 28 j 19:40 11° ★ 46'24 -1°-13'-18 direct conjunction -3225 Jul 01 i 11:20 -3219 Mar 28 i 19:43 11°\(\frac{1}{4}\)46'25 1°13'21 0° m minimum elong -3225 Sep 24 i 06:49 15° m 34'47 evening set max. Earth dist. -3219 Mar 30 i 19:50 12° **★** 14'24 6.08093 AU max. Earth dist. -3225 Oct 05 i 01:11 18° m 00'31 6.29542 AU morning rise -3219 Apr 11 i 13:37 14° ★ 57'40 -3219 Jun 25 j 10:04 $0^{\circ}\Upsilon$ conjunction -3225 Oct 06 j 19:50 18° m 24'40 1°10'02 -3219 Aug 18 i 12:36 4°Y24'28 retrograde -3225 Oct 06 j 19:52 18° m 24'41 1°10'03 -3219 Oct 12 j 01:52 30°R € minimum elong -3225 Oct 19 j 07:51 21° Mp 14'12 morning rise opposition -3225 Nov 29 j 10:51 0∘∙ min. Earth dist. -3219 Oct 15 j 21:20 29° ¥28'54 4.13356 AU -3224 Feb 20 j 06:06 retrograde 9°**£**11'14 direct -3219 Dec 14 j 19:33 24° **∺** 19'45 opposition -3224 Apr 21 j 06:34 4°**2**18'34 1°22'33 -3218 Feb 14 j 18:31 $0^{\circ}\Upsilon$ min. Earth dist. -3224 Apr 22 j 10:11 4°**2**09'46 4.24135 AU -3218 Apr 20 j 12:34 13°**Y**08'44 evening set -3224 Jun 01 j 13:10 30°R M -3224 Jun 21 j 21:55 29°M 21'50 -3218 May 04 j 07:07 16° **Y**15'33 0° -42'-28 direct conjunction -3224 Jul 12 j 04:21 $-3218 \text{ May } 04 \text{ j } 07:11 \quad 16^{\circ} \Upsilon 15'35$ 0∘**⊽** minimum elong 0°42'27 -3218 May 05 j 17:10 16°**Υ**34'49 evening set -3224 Oct 25 j 00:54 17°**Ω**45'46 max. Earth dist. 6.19053 AU $-3218 \text{ May } 18 \text{ j } 01:36 \quad 19^{\circ} \Upsilon 22'05$ max. Earth dist. -3224 Nov 05 j 10:45 20°**2**24'14 6.18299 AU morning rise -3218 Jul 07 j 23:58 0°8 conjunction -3224 Nov 06 j 15:34 20°**2**40'58 0°37'19 retrograde -3218 Sep 20 j 10:29 7°**8**48'04 minimum elong -3224 Nov 06 j 15:37 20°**£**40'59 0°37'16 opposition -3218 Nov 18 j 22:27 2°**8**46'29 0°-31'-29 -3224 Nov 19 j 06:41 23°**೨**36'38 min. Earth dist. -3218 Nov 18 j 07:39 2°**8**51'29 4.24758 AU

-3218 Dec 10 j 19:08 30°R℃

morning rise

-3224 Dec 17 j 19:48

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3217 in astronomical counting style is the year 3218 BCE in historical counting style. -3217 Jan 17 j 23:09 27°**Y**43'52 conjunction -3212 Nov 11 i 07:46 25° **2**32'21 0°31'13 direct -3217 Feb 25 j 15:12 0°8 -3212 Nov 11 j 07:48 25° **△**32'22 0°31'10 minimum elong -3217 May 20 j 09:30 15°8 -3212 Nov 23 j 23:45 28° **2**29'04 morning rise -3212 Nov 30 j 13:35 -3217 May 25 j 09:42 16°**8**05'50 0°M evening set asc. node -3217 May 28 j 03:30 16°**8**42'03 -3211 Feb 18 j 20:21 15°M -3211 Mar 31 j 16:38 17° ML30'14 retrograde -3217 Jun 08 j 00:59 19°**8**06'39 0°01'16 conjunction -3211 May 11 j 22:30 15°RML -3217 Jun 08 j 00:57 19°**8**06'39 -3211 May 31 j 15:42 12°M34'14 0°11'55 minimum elong 0°01'21 opposition -3217 Jun 07 j 16:39 19°**8**02'04 behind sun begin min. Earth dist. -3211 Jun 01 j 01:36 12°M-31'01 4.11151 AU behind sun end -3217 Jun 08 j 09:15 19°**8**11'13 direct -3211 Jul 30 j 18:35 7°M40'21 max. Earth dist. -3217 Jun 08 j 10:26 19°**8**11'53 6.30090 AU desc. node -3211 Aug 06 j 04:29 7°M44'23 -3217 Jun 21 j 14:08 22°**8**06'16 -3211 Oct 09 j 20:18 15°M morning rise -3211 Dec 02 j 04:00 26°M33'20 -3217 Jul 29 j 05:13 Π $^{\circ}0$ evening set retrograde -3217 Oct 21 j 22:23 9°**Ⅱ**40'11 opposition -3217 Dec 20 j 14:39 4°**II**42'34 0°33'26 conjunction -3211 Dec 15 j 00:32 29°M 36'11 0°-15'-47 min. Earth dist. -3217 Dec 20 j 16:47 4°**Д**41'51 4.34506 AU minimum elong -3211 Dec 15 j 00:30 29°M36'10 0°15'53 -3216 Feb 04 j 22:24 30°R8 behind sun begin -3211 Dec 14 j 22:49 29°M35'10 direct -3216 Feb 19 j 22:57 29°**8**38'56 behind sun end -3211 Dec 15 j 02:12 29°M37'10 -3216 Mar 06 j 01:20 $0^{\circ}\Pi$ max. Earth dist. -3211 Dec 15 j 00:20 29°M36'04 6.06405 AU evening set -3216 Jun 26 j 15:10 17°**Ⅲ**39'50 -3211 Dec 16 j 16:37 0°**∡**7 morning rise -3211 Dec 27 j 23:15 2°**х** 40′24 conjunction -3216 Jul 09 j 22:36 20°**I**I34'15 0°43'15 retrograde -3210 May 07 j 17:26 22° ₹34'46 minimum elong -3216 Jul 09 i 22:34 20°**I**34'14 0°43'21 opposition -3210 Jul 07 i 07:54 17° ₹ 34'53 0°-58'-44 max. Earth dist. -3216 Jul 09 i 06:45 20°**Д**25'34 6.37803 AU min. Earth dist. -3210 Jul 06 j 22:33 17° ₹37'58 4.02800 AU -3210 Sep 04 j 03:53 12°**х** 41'53 morning rise -3216 Jul 23 j 02:54 23°**Ⅲ**27'03 direct -3216 Aug 23 j 07:43 -3210 Dec 29 i 07:51 0°궁 0ಂತಾ -3216 Nov 20 j 15:28 10°530'49 evening set -3209 Jan 06 j 12:01 1°る55'56 retrograde -3215 Jan 19 j 17:15 5°936'41 1°26'41 opposition -3215 Jan 20 j 10:28 -3209 Jan 19 j 15:20 5°る04'15 0°-58'-20 min. Earth dist. 5°531'05 4.39777 AU conjunction -3215 Mar 22 j 23:46 0°533'23 -3209 Jan 19 j 15:17 5°る04'13 0°58'27 direct minimum elong -3215 Jul 28 j 12:27 18°524'15 -3209 Jan 20 j 16:59 5°**る**19'36 6.00716 AU evening set max. Earth dist. -3215 Aug 09 j 00:36 20°\$55'08 6.40138 AU -3209 Feb 01 j 22:06 8°중14'23 max. Earth dist. morning rise -3209 Jun 14 j 02:28 28°♂35'58 retrograde -3209 Aug 12 j 04:12 23°정41'02 4.00523 AU -3215 Aug 10 j 10:52 21°513'56 1°12'12 conjunction min. Earth dist. -3215 Aug 10 j 10:49 21°513'55 -3209 Aug 13 j 05:44 23°₹32'26 -1°-48'-52 minimum elong 1°12'19 opposition -3215 Aug 23 j 05:59 24°502'04 -3209 Oct 10 j 06:50 18°る38'02 morning rise direct -3215 Sep 20 j 11:23 $0^{\circ}\Omega$ -3208 Jan 08 j 01:22 0°≈ retrograde -3215 Dec 21 j 13:58 11°**Ω**01'47 evening set -3208 Feb 12 j 05:45 7°≈59'09 -3214 Feb 20 j 01:45 $6^{\circ}\Omega$ 09'52 $1^{\circ}55'25$ opposition min. Earth dist. -3214 Feb 21 j 06:19 6°**Ω**00'43 4.39174 AU conjunction -3208 Feb 25 j 16:35 11°≈10'07 -1°-19'-17 direct -3214 Apr 23 j 18:03 1°**Ω**08'12 minimum elong -3208 Feb 25 j 16:35 11°≈10'07 1°19'22 -3214 Aug 10 j 01:43 15°**Ω** max. Earth dist. -3208 Feb 27 j 14:07 11°≈37'06 6.01924 AU -3214 Aug 28 j 15:25 19°**Ω**00'56 -3208 Mar 10 j 06:19 14°≈22'32 evening set morning rise max. Earth dist. -3214 Sep $08 \text{ j } 10:27 \ 21^{\circ}\Omega 24'24 \ 6.36518 \text{ AU}$ -3208 Mar 12 j 22:14 15°≈ -3208 May 25 j 19:30 -3208 Jul 19 i 14:17 conjunction $-3214 \text{ Sep } 10 \text{ j } 06:53 \quad 21^{\circ} \Omega 49'06 \quad 1^{\circ} 20'57$ retrograde 4° **)** 30'02 $-3214 \text{ Sep } 10 \text{ j } 06:53 \quad 21^{\circ} \Omega 49'06$ minimum elong -3208 Sep 12 j 23:03 30°R≈ $-3214 \text{ Sep } 22 \text{ j } 20:10 \quad 24^{\circ} \Omega 36'16$ morning rise min. Earth dist. -3208 Sep 16 j 00:19 29°≈35'05 4.05194 AU -3214 Oct 17 j 21:22 0° m opposition -3208 Sep 17 i 06:30 29°≈24'48 retrograde -3213 Jan 22 j 13:13 11° m 57'36 direct -3208 Nov 14 i 09:50 24°≈27'27 -3213 Mar 24 j 09:34 7° m 06'01 -3207 Jan 13 i 14:42 0°₩ opposition 1°52'11 min. Earth dist. -3213 Mar 25 j 17:30 6° m 55'51 4.32819 AU -3207 Mar 20 j 06:49 13° ¥ 36'59 evening set direct -3213 May 25 j 18:45 2° m 06'49 evening set -3213 Sep 28 j 18:08 20° m 12'35 conjunction -3207 Apr 02 j 23:33 16° **★**47'07 -1°-10'-18 max. Earth dist. -3213 Oct 09 j 15:18 22° m/40'25 6.27914 AU minimum elong -3207 Apr 02 j 23:36 16° ¥ 47'09 1°10'21 max. Earth dist. -3207 Apr 04 j 22:15 17° ¥ 14'10 6.09553 AU conjunction -3213 Oct 11 j 07:18 23° m 03'09 1°06'31 morning rise -3207 Apr 16 j 17:59 19°**₭** 57'55 -3213 Oct 11 j 07:21 23° m 03'11 1°06'33 -3207 Jun 02 j 04:53 $0^{\circ}\Upsilon$ minimum elong -3213 Oct 23 j 19:23 25° m 53'26 -3207 Aug 23 j 04:43 9°Υ16'24 morning rise retrograde -3207 Oct 21 j 16:18 4°Υ12'11 -1°-22'-38 -3213 Nov 11 j 07:18 0∘**⊽** opposition 4°**Υ**20'58 4.14927 AU retrograde -3212 Feb 25 j 03:39 13°**⊆**58'03 min. Earth dist. -3207 Oct 20 j 14:33 opposition -3212 Apr 26 j 04:51 9°**Ω**05'04 1°15'18 -3207 Nov 27 j 15:42 30°R₩ min. Earth dist. -3212 Apr 27 j 06:05 8°**♀**57'02 4.22450 AU direct -3207 Dec 19 j 14:58 29° **∺** 11'37 direct -3212 Jun 26 j 15:21 4°**£**08'48 -3206 Jan 10 j 20:43 $0^{\circ}\Upsilon$ evening set -3212 Oct 29 j 16:43 22°**△**36'18 evening set -3206 Apr 25 j 11:37 17°**Υ**56'53

conjunction

-3206 May 09 j 06:03 21°**Y**03'00 0°-36'-47

max. Earth dist.

-3212 Nov 10 j 05:42 25°**♀**17'10 6.16711 AU

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3206 in astronomical counting style is the year 3207 BCE in historical counting style. -3206 May 09 j 06:06 21°**Υ**'03'02 0°36'45 opposition -3200 May 01 i 03:08 13° **2**51'37 1°07'37 minimum elong -3206 May 10 j 12:06 21°**Υ** 19'57 min. Earth dist. -3200 May 02 j 02:14 13° **△**44'14 4.21121 AU max. Earth dist. 6.20627 AU -3206 May 23 j 00:07 24°**Y**08'41 -3200 Jul 01 j 09:56 8°**£**55'43 morning rise direct -3206 Jun 18 j 21:37 -3200 Nov 03 j 07:27 27°**£**25'31 0°8 evening set -3206 Sep 24 j 23:10 12°**8**26'53 -3200 Nov 14 j 08:55 retrograde 0° M -3206 Nov 23 j 10:11 opposition 7°**8**25'52 0°-22'-19 -3200 Nov 15 j 23:11 0°M22'21 -3206 Nov 22 j 22:37 0°25'01 min. Earth dist. 7°**8**29'45 4.26179 AU conjunction -3200 Nov 15 j 23:13 direct -3205 Jan 22 j 16:08 2°**8**23'01 minimum elong 0°M22'22 0°24'57 -3200 Nov 15 j 01:37 asc. node -3205 Apr 06 j 20:16 9°**8**52'01 max. Earth dist. 0°M09'45 6.15490 AU -3205 May 03 j 11:15 15°**8** morning rise -3200 Nov 28 j 15:45 3° ML19'53evening set -3205 May 30 j 03:31 20°**8**42'06 -3199 Jan 22 j 09:33 15° ML -3199 Apr 05 j 18:45 22°M27'36 retrograde -3205 Jun 12 j 18:01 23°842'06 0°07'34 -3199 Jun 05 j 17:38 17°M 31'06 conjunction opposition 0°01'53 -3205 Jun 12 j 18:01 23°**8**42'06 minimum elong 0°07'40 min. Earth dist. -3199 Jun 06 j 01:07 17° ML 28'41 4.10137 AU behind sun begin -3205 Jun 12 j 10:34 23°**8**38'01 desc. node -3199 Jun 16 j 04:06 16°M 11'02 behind sun end -3205 Jun 13 j 01:28 23°**8**46'12 -3199 Jun 26 j 04:19 15°RM max. Earth dist. -3205 Jun 13 j 00:05 23°**8**45'26 6.31254 AU direct -3199 Aug 04 j 16:48 12°M37'28 morning rise -3205 Jun 26 j 06:08 26°**8**40'50 -3199 Sep 12 j 12:24 15°M -3205 Jul 11 j 14:07 $0^{\circ}\Pi$ -3199 Nov 30 j 10:39 0°×7 retrograde -3205 Oct 26 j 05:58 14°**Д**09'46 evening set -3199 Dec 06 j 23:43 1°**х** 32′16 opposition -3205 Dec 24 j 23:48 9°**Ⅱ**12'42 0°41'59 min. Earth dist. -3205 Dec 25 i 03:31 9°**Ⅱ**11'28 4.35349 AU conjunction -3199 Dec 19 i 20:52 4°**∡**³35'44 0°-22'-22 direct -3204 Feb 24 i 10:14 4°**Д**09'03 minimum elong -3199 Dec 19 i 20:50 4°**∡**³35'43 0°22'29 evening set -3204 Jul 01 j 04:32 22°**Ⅲ**08'43 max. Earth dist. -3199 Dec 19 i 22:58 4°**х** 36′58 6.05671 AU morning rise -3198 Jan 01 j 20:43 7°**∡**'40'43 -3204 Jul 14 j 10:43 25°**Ⅲ**02'27 0°48'19 -3198 May 12 j 20:26 27° ₹39'15 conjunction retrograde -3204 Jul 14 j 10:40 25°**Ⅲ**02'25 0°48'25 opposition -3198 Jul 12 j 10:38 22° **₹** 38'45 -1°-7'-29 minimum elong -3204 Jul 13 j 15:43 24°**Ⅲ**52'02 -3198 Jul 11 j 22:21 22°**√** 42'49 max. Earth dist. 6.38258 AU min. Earth dist. 4.02430 AU -3204 Jul 27 j 13:44 27°**I** 54'32 -3198 Sep 09 j 03:21 17° **₹** 45'36 morning rise direct -3204 Aug 06 j 06:13 0°5 -3198 Dec 12 j 01:07 0°궁 -3204 Nov 25 j 01:12 14°957'00 -3197 Jan 11 j 11:53 evening set 7°る00'23 retrograde -3203 Jan 24 j 02:58 10°503'21 1°32'27 opposition -3203 Jan 24 j 22:37 9°556'58 -3197 Jan 24 j 16:19 10°♂09'07 -1°-2'-48 min. Earth dist. 4.39836 AU conjunction -3197 Jan 24 j 16:16 10°♂09'05 1°02'56 -3203 Mar 27 j 11:54 5°500'17 direct minimum elong -3203 Aug 01 j 23:04 22°551'30 -3197 Jan 25 j 22:06 10°♂26'55 6.00730 AU evening set max. Earth dist. -3203 Aug 13 j 07:30 25°\$20'38 6.39778 AU -3197 Feb 06 j 23:53 13°**정**19'36 max. Earth dist. morning rise -3197 Apr 30 j 19:42 0°≈ conjunction -3203 Aug 14 j 20:20 25°540'52 1°14'47 retrograde -3197 Jun 19 j 05:14 3°≈40'52 -3203 Aug 14 j 20:18 25°540'50 1°14'53 -3197 Aug 07 j 20:56 30°R♂ minimum elong -3203 Aug 27 j 14:30 28°528'45 min. Earth dist. -3197 Aug 17 j 04:46 28° ₹ 45'36 4.00934 AU morning rise -3203 Sep 03 j 14:29 0°**Ω** opposition -3197 Aug 18 j 06:20 28°**궁**36'59 -1°-52'-43 -3203 Dec 08 j 00:31 15°**Ω** direct -3197 Oct 15 j 07:29 23°₹42'13 -3203 Dec 26 j 01:26 15° **Ω** 30'42 -3197 Dec 18 j 08:44 retrograde -3202 Jan 13 j 02:43 15°R*Q* -3196 Feb 17 j 07:47 13°≈02'19 evening set -3202 Feb 24 j 14:19 10° **Ω**38'57 1°57'00 -3196 Feb 25 j 15:22 15°≈ opposition -3202 Feb 25 j 19:19 $10^{\circ}\Omega$ 29'40 4.38461 AU min. Earth dist. -3202 Apr 28 i 05:33 -3196 Mar 01 j 19:26 16°≈13'19 -1°-19'-49 direct 5°**Ω**37'37 conjunction -3202 Jul 23 i 03:48 15°Ω minimum elong -3196 Mar 01 j 19:26 16°≈13'19 1°19'54 evening set $-3202 \text{ Sep } 02 \text{ j } 01:26 \quad 23^{\circ} \Omega 32'04$ max. Earth dist. -3196 Mar 03 j 17:13 16°≈40'22 6.02669 AU max. Earth dist. -3202 Sep 12 j 21:38 25° Ω 56'32 6.35526 AU morning rise -3196 Mar 15 i 10:06 19°≈25'45 -3196 May 02 j 12:11 0°**₩** -3202 Sep 14 j 16:24 $26^{\circ}\Omega$ 20'23 1° 20'18 -3196 Jul 24 j 10:27 9°**₩**28'14 conjunction retrograde -3202 Sep 14 j 16:25 $26^{\circ}\Omega$ 20'24 -3196 Sep 20 j 19:37 4°₩33'26 4.06213 AU minimum elong 1°20'21 min. Earth dist. $-3202 \text{ Sep } 27 \text{ j } 05:05 \quad 29^{\circ} \Omega 07'45$ -3196 Sep 22 j 02:11 morning rise opposition 4°**)** 23'00 -1°-54'-41 -3202 Oct 01 j 03:38 -3196 Oct 31 j 21:24 30°R≈ 0° m retrograde -3201 Jan 27 j 05:25 16° M 34'01 direct -3196 Nov 19 j 06:23 29°≈25'11 opposition -3201 Mar 29 j 02:42 11° m 42'24 1°48'55 -3196 Dec 07 j 19:39 0°**₩** min. Earth dist. -3201 Mar 30 j 09:53 11° m 32'29 4.31620 AU -3195 Mar 25 j 07:55 18° **∺** 32'28 evening set -3201 May 30 j 09:27 6° Mp 43'42 direct -3201 Oct 03 j 05:38 24° m 51'41 -3195 Apr 08 j 01:10 21° **★** 42'19 -1°-6'-53 evening set conjunction -3201 Oct 14 j 03:20 27° m 20'21 6.26612 AU -3195 Apr 08 j 01:14 21° ¥42'21 1°06'55 max. Earth dist. minimum elong max. Earth dist. -3195 Apr 09 j 21:14 22°**米**07'46 6.10765 AU conjunction -3201 Oct 15 j 18:40 27° m 42'46 1°02'38 morning rise -3195 Apr 21 j 19:55 24° **★** 52'40 minimum elong -3201 Oct 15 j 18:43 27° Mp 42'48 1°02'38 -3195 May 14 j 16:40 $0^{\circ}\Upsilon$ -3201 Oct 25 j 19:41 0∘**⊽** retrograde -3195 Aug 27 j 20:56 14°**Υ**'03'57 -3201 Oct 28 j 07:09 0°**ჲ**33'44 -3195 Oct 25 j 07:52 9°**Υ**07'57 4.16195 AU morning rise min. Earth dist.

-3195 Oct 26 j 07:01

opposition

9°**Y**'00'04 -1°-15'-22

-3200 Mar 01 j 01:30 18° **2**45'00

retrograde

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 19

-	ical year style is used: Th		•	· · ·		, .	
direct	-3195 Dec 24 j 10:08	3° Y 59'05		max. Earth dist.	-3189 Oct 18 j 16:36		6.25249 AU
evening set	-3194 Apr 30 j 09:10	22° Ƴ 41'44			J		
C	1 3			conjunction	-3189 Oct 20 j 05:07	2° ≏ 18'48	0°58'23
conjunction	-3194 May 14 j 03:36	25° Ƴ 47'17	0°-30'-56	minimum elong	-3189 Oct 20 j 05:10	2° ≏ 18'50	0°58'23
minimum elong	-3194 May 14 j 03:38	25° Ƴ 47'18	0°30'55	morning rise	-3189 Nov 01 j 17:46	5° ≏ 10'27	
max. Earth dist.	-3194 May 15 j 07:35	26° Y ′03′02	6.21879 AU	retrograde	-3188 Mar 05 j 22:43	23° ≏ 28'40	
morning rise	-3194 May 27 j 21:09	28° Y ′52'14		opposition	-3188 May 06 j 00:16	18° ≏ 34'59	0°59'30
	-3194 Jun 01 j 23:01	0° 8		min. Earth dist.	-3188 May 06 j 22:19	18° ≏ 27'56	4.19631 AU
	-3194 Aug 24 j 04:15	15° 8		direct	-3188 Jul 06 j 03:47	13° ≏ 39'29	
retrograde	-3194 Sep 29 j 09:10	17° 8 03'46			-3188 Oct 29 j 08:02	0° M	
	-3194 Nov 04 j 09:24	15° ₹ 8		evening set	-3188 Nov 07 j 21:58	2°M12'30	
opposition	-3194 Nov 27 j 21:09	12° 8 03'16					
min. Earth dist.	-3194 Nov 27 j 10:46	12° 8 06'46	4.27317 AU	conjunction	-3188 Nov 20 j 14:11	5°M10'13	0°18'38
direct	-3193 Jan 27 j 05:36	7° 8 00'16		minimum elong	-3188 Nov 20 j 14:12	5° ™ 10'14	0°18'35
asc. node	-3193 Feb 14 j 22:42	7° 8 33'07		max. Earth dist.	-3188 Nov 19 j 17:52	4°M58'20	6.14001 AU
	-3193 Apr 14 j 12:14			morning rise	-3188 Dec 03 j 07:47	8°M08'49	
evening set	-3193 Jun 03 j 20:47	25° 8 17'12			-3187 Jan 02 j 18:31	15°M	
	2102 I 17:10 15	20001712	0012145	retrograde	-3187 Apr 10 j 20:43	27°M24'19	
conjunction	-3193 Jun 17 j 10:15			desc. node	-3187 Apr 26 j 04:09	27°M02'17	00.01.12
minimum elong	-3193 Jun 17 j 10:14		0°13′50	opposition	-3187 Jun 10 j 19:17		0°-8'-12
behind sun begin	-3193 Jun 17 j 06:07			min. Earth dist.	-3187 Jun 10 j 23:37	22°M25'53 17°M33'49	4.08763 AU
behind sun end max. Earth dist.	-3193 Jun 17 j 14:21 -3193 Jun 17 j 11:53	28° 8 18'41 28° 8 17'20	6.32204 AU	direct	-3187 Aug 09 j 13:28	1/*11633'49 0° x 7	
max. Earm dist.	-3193 Jun 25 j 06:03	0°Ⅱ	0.32204 AU	evening set	-3187 Nov 13 j 08:13 -3187 Dec 11 j 20:07	6° ₹ ⁷ 32'11	
morning rise	-3193 Jun 30 j 21:23	0 H 1°H14'19		evening set	-3187 Dec 11 j 20.07	0 8-3211	
retrograde	-3193 Oct 30 j 15:45	18° ∏ 39'00		conjunction	-3187 Dec 24 j 18:21	9° ∡ ³36'35	0°-28'-52
opposition	-3193 Dec 29 j 09:17	13° Ⅱ 42'26	0°50'14	minimum elong	-3187 Dec 24 j 18:21	9° ∡ 36'33	0°28'58
min. Earth dist.	-3193 Dec 29 j 15:58	13° Ⅱ 42′20	4.36055 AU	max. Earth dist.	-3187 Dec 25 j 01:13	9° х 40'40	6.04544 AU
direct	-3192 Feb 29 j 00:13	8° П 38'47	1.50055 110	morning rise	-3186 Jan 06 j 19:08	12° ₹ 42'30	0.01311110
evening set	-3192 Jul 05 j 17:41			morning rise	-3186 Apr 05 j 07:01	0°る	
e renning see	51,2 vai 05 j 171	20 207 12		retrograde	-3186 May 18 j 03:42	2° ප් 46'51	
conjunction	-3192 Jul 18 j 22:43	29° Ⅱ 30'15	0°53'05		-3186 Jun 30 j 02:42	30°R. ✓	
minimum elong	-3192 Jul 18 j 22:40	29° Ⅱ 30'14	0°53'12	opposition	-3186 Jul 17 j 14:46		-1°-15'-53
max. Earth dist.	-3192 Jul 18 j 01:49	29° Ⅱ 18'49	6.38660 AU	min. Earth dist.	-3186 Jul 17 j 01:15		4.01667 AU
	-3192 Jul 21 j 05:02	0° ©		direct	-3186 Sep 14 j 04:35	22° ∡ 52'40	
morning rise	-3192 Aug 01 j 00:20	2° © 21'39			-3186 Nov 21 j 21:09	გ∘ე	
retrograde	-3192 Nov 29 j 08:23	19° 5 22'45		evening set	-3185 Jan 16 j 14:29	12° る 09'55	
opposition	-3191 Jan 28 j 12:40	14° 5 29'23	1°37'40				
min. Earth dist.	-3191 Jan 29 j 08:55	14° © 22'50	4.39936 AU	conjunction	-3185 Jan 29 j 19:52	15° る 19'16	-1°-6'-53
direct	-3191 Mar 31 j 22:20	9° 5 26'28		minimum elong	-3185 Jan 29 j 19:49		1°07'01
evening set	-3191 Aug 06 j 09:17	27° © 17'31		max. Earth dist.	-3185 Jan 31 j 03:42	15° る 38'17	6.00378 AU
max. Earth dist.	-3191 Aug 17 j 15:44	29° © 45'45	6.39550 AU	morning rise	-3185 Feb 12 j 04:40	18° る 30'23	
	-3191 Aug 18 j 17:37	0 $^{\circ}$ Ω			-3185 Apr 05 j 08:29	0° ≈	
		_		retrograde	-3185 Jun 24 j 09:08	8° ≈ 52'25	
conjunction	-3191 Aug 19 j 05:23	0° Ω 06′28	1°16'54	min. Earth dist.	-3185 Aug 22 j 05:28	3° ≈ 57'35	4.01064 AU
minimum elong	-3191 Aug 19 j 05:21	0°Ω06'27	1°16'59	opposition	-3185 Aug 23 j 09:04	3°≈48'16	-1°-55'-48
morning rise	-3191 Aug 31 j 22:31	2° Ω 54'01			-3185 Sep 24 j 17:56	30°Rる	
. 1	-3191 Nov 01 j 20:30	15° Ω		direct	-3185 Oct 20 j 08:13		
retrograde	-3191 Dec 30 j 12:50	19° Ω 57'36	1057152		-3185 Nov 15 j 00:43	0°≈	
opposition	-3190 Mar 01 j 02:36	15° Ω 05'58	1°57'53		-3184 Feb 08 j 16:12		
min Earth diat	-3190 Mar 01 j 21:18	15°R Ω 14° Ω 56'18	4.37903 AU	evening set	-3184 Feb 22 j 13:37	18-2013-33	
min. Earth dist. direct	-3190 Mar 02 j 08:53 -3190 May 02 j 18:41	14 δι 36 18	4.57905 AU	conjunction	-3184 Mar 07 j 02:16	2100024146	-1°-19'-46
direct	-3190 May 02 j 18.41 -3190 Jul 01 j 17:08	10 δ 2 04 38		minimum elong	-3184 Mar 07 j 02:16		1°19'50
evening set	-3190 Sep 06 j 10:17	28°Ω00'12		max. Earth dist.	-3184 Mar 09 j 00:33		6.03258 AU
evening set	-3190 Sep 00 j 10:17	0°m)		morning rise	-3184 Mar 20 j 17:45		0.03238 AU
max. Earth dist.	-3190 Sep 17 j 04:46	ران 0° الله 24′07	6.34646 AU	morning risc	-3184 Apr 13 j 06:23	0° \	
Zurur dist.	5170 Бер 17 ј от. то	↓ ny 2 ∓ ∪ /	5.5 .5 10 110	retrograde	-3184 Jul 29 j 11:29	14°) 35'07	
conjunction	-3190 Sep 19 j 00:38	0° Mp 48'38	1°19'11	min. Earth dist.	-3184 Sep 25 j 19:29	9° H 40'05	4.07192 AU
minimum elong	-3190 Sep 19 j 00:39	0° mp 48'38	1°19'14	opposition	-3184 Sep 27 j 01:06	9° H 29'58	-1°-51'-18
morning rise	-3190 Oct 01 j 13:03	3° m/36'13		direct	-3184 Nov 24 j 08:15	4°) (2)30	
retrograde	-3189 Jan 31 j 20:14	21° Mp 07'08		evening set	-3183 Mar 30 j 12:38		
opposition	-3189 Apr 02 j 18:58	16° mp 15'18	1°44'59	<i>5</i>	, j -=.50		
min. Earth dist.	-3189 Apr 04 j 01:08	16° m 05'43	4.30450 AU	conjunction	-3183 Apr 13 j 06:33	26°) 46′24	-1°-2'-52
direct	-3189 Jun 03 j 22:56	11° m) 16'57		minimum elong	-3183 Apr 13 j 06:37		1°02'53
evening set	-3189 Oct 07 j 15:53	29° Mp 27'06		max. Earth dist.	-3183 Apr 15 j 02:58	27°) 11'57	6.12087 AU
	-3189 Oct 10 j 01:52	0∘ ত		morning rise	-3183 Apr 27 j 01:27	29° ¥ 56′15	

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 20 Attention, astronomical year style is used: The year -3183 in astronomical counting style is the year 3184 BCE in historical counting style.

Attention, astronom	nical year style is used: Tl	he year -3183	in astronomical co	unting style is the year	3184 BCE in historical	counting style	
	-3183 Apr 27 j 08:00	0° Υ			-3177 Sep 24 j 12:34	0∘ ⊽	
retrograde	-3183 Sep 01 j 14:41	18° Ƴ 59'33		evening set	-3177 Oct 11 j 22:13	3° ჲ 53′26	
min. Earth dist.	-3183 Oct 30 j 02:03	14° Y 03′50		max. Earth dist.	-3177 Oct 22 j 22:27	6° £ 24'32	6.23690 AU
opposition	-3183 Oct 31 j 00:44	13° Y 56′07	-1°-7'-22				
direct	-3183 Dec 29 j 06:30	8° Y 54'54		conjunction	-3177 Oct 24 j 11:36	6° ≏ 45'50	0°53'56
evening set	-3182 May 05 j 09:38			minimum elong	-3177 Oct 24 j 11:39	6° £ 45'52	0°53'56
	-3182 May 16 j 07:03	9° 8		morning rise	-3177 Nov 06 j 00:50	9° ≏ 38'22	
				retrograde	-3176 Mar 10 j 15:58	28° ≏ 04'36	
conjunction	-3182 May 19 j 03:31	0° 8 38'24		opposition	-3176 May 10 j 18:04		0°51'18
minimum elong	-3182 May 19 j 03:33	0° 8 38'26		min. Earth dist.	-3176 May 11 j 14:03		4.17805 AU
max. Earth dist.	-3182 May 20 j 03:39	0° 8 51'56	6.23568 AU	direct	-3176 Jul 10 j 16:21	18° ≙ 15'14	
morning rise	-3182 Jun 01 j 20:34	3° 8 42'23			-3176 Oct 12 j 19:17	0°M	
1	-3182 Jul 27 j 02:57			evening set	-3176 Nov 12 j 09:39	6°M52'59	6 12002 ATT
retrograde	-3182 Oct 03 j 21:28		00 21 40	max. Earth dist.	-3176 Nov 24 j 09:54	9° M 41'58	6.12082 AU
opposition	-3182 Dec 02 j 10:02 -3182 Dec 02 j 02:04			:	2176 N 25 : 02-42	00 m 51151	0012121
min. Earth dist.	-3182 Dec 02 j 02:04 -3182 Dec 15 j 20:38		4.29014 AU	conjunction	-3176 Nov 25 j 02:43	9° M 51'51 9° M 51'51	0°12′21 0°12′16
aga mada	-3182 Dec 13 j 20.38 -3182 Dec 25 j 09:08	13° 8 52'55		minimum elong behind sun begin	-3176 Nov 25 j 02:44 -3176 Nov 24 j 21:17	9°M48'40	0 12 10
asc. node				behind sun begin	-3176 Nov 24 j 21.17 -3176 Nov 25 j 08:10	9°M55'02	
direct	-3181 Feb 01 j 00:00 -3181 Mar 20 j 11:23			morning rise	-3176 Nov 23 j 08.10 -3176 Dec 07 j 21:08	12°M51'40	
evening set	-3181 Jun 08 j 14:44			morning rise	-3176 Dec 07 j 21:08 -3176 Dec 17 j 02:25	12 11631 40 15°M	
evening set		0° Ⅱ		desc. node	-		
	-3181 Jun 08 j 23:38	υщ		desc. node	-3175 Mar 07 j 21:35 -3175 Mar 08 j 03:27	29 IIL38 20 0° √	
conjunction	-3181 Jun 22 j 03:15	2° Ⅱ 53'17	0°10'52	retrograde	-3175 Apr 15 j 23:46	2° ∡ 16'50	
minimum elong	-3181 Jun 22 j 03:13	2° I 53'16		retrograde	-3175 May 25 j 00:06		
max. Earth dist.	-3181 Jun 22 j 03:32	2° I 53'16	6.33802 AU	opposition	-3175 Jun 15 j 19:11		0°-18'-1
morning rise	-3181 Jul 05 j 12:54	2 ∏ 33 20 5° ∏ 49'56	0.33802 AU	min. Earth dist.	-3175 Jun 15 j 22:21		4.06909 AU
retrograde	-3181 Nov 03 j 21:53	23° I I08'12		direct	-3175 Aug 14 j 09:07		4.00909 AU
opposition	-3180 Jan 02 j 18:29	18° I 12'08	0°58'04	direct	-3175 Oct 25 j 03:33	0° × ⁷	
min. Earth dist.	-3180 Jan 03 j 02:07	18° Ⅱ 09'37	4.37451 AU	evening set	-3175 Dec 16 j 16:04		
direct	-3180 Mar 04 j 12:33	13° Ⅱ 09'37	4.57431 AU	evening set	-31/3 DCC 10 J 10.04	11 🗶 29 34	
direct	-3180 Jul 05 j 08:08	0°9		conjunction	-3175 Dec 29 j 15:17	14° √ 35'28	0°-35'-1
evening set	-3180 Jul 10 j 05:13	1°903'14		minimum elong	-3175 Dec 29 j 15:14		0°35'07
max. Earth dist.	-3180 Jul 22 j 08:14	3°941'51	6.39730 AU	max. Earth dist.	-3175 Dec 30 j 00:39		6.02925 AU
max. Dartii dist.	5100 Jul 22 j 00.11	3 - 1131	0.55750710	morning rise	-3174 Jan 11 j 17:25		0.02)23 110
conjunction	-3180 Jul 23 j 08:42	3° © 55'14	0°57'27		-3174 Mar 09 j 02:49	0°ප	
minimum elong	-3180 Jul 23 j 08:39	3°955'13	0°57'34	retrograde	-3174 May 23 j 08:43	7°る54'30	
morning rise	-3180 Aug 05 j 09:04	6°545'39		opposition	-3174 Jul 22 j 18:27		-1°-23'-36
retrograde	-3180 Dec 03 j 15:03			min. Earth dist.	-3174 Jul 22 j 01:36		
opposition	-3179 Feb 01 j 20:39		1°42'07		-3174 Aug 14 j 23:56		
min. Earth dist.	-3179 Feb 02 j 19:33	18°9543'07	4.40614 AU	direct	-3174 Sep 19 j 03:19		
direct	-3179 Apr 05 j 10:06	13°9547'45			-3174 Oct 24 j 00:02	0°ප	
	-3179 Aug 03 j 05:42	$0^{\circ}\Omega$		evening set	-3173 Jan 21 j 18:07		
evening set	-3179 Aug 10 j 15:49	1° Ω 36'34		<i>8</i>	,		
max. Earth dist.	-3179 Aug 21 j 19:39	4° Ω 03'23	6.39754 AU	conjunction	-3173 Feb 04 j 00:42	20° ට 31'13	-1°-10'-23
	Z J			minimum elong	-3173 Feb 04 j 00:39		1°10'29
conjunction	-3179 Aug 23 j 10:56	4° Ω 24'59	1°18'29	max. Earth dist.	-3173 Feb 05 j 11:53		5.99729 AU
minimum elong	-3179 Aug 23 j 10:55	4° Ω 24'59	1°18'34	morning rise	-3173 Feb 17 j 10:38		
morning rise	-3179 Sep 05 j 03:00	7° Ω 12'02			-3173 Mar 16 j 16:00	0° ≈	
	-3179 Oct 12 j 12:33	15° Ω		retrograde	-3173 Jun 29 j 15:35	14° ≈ 06'45	
retrograde	-3178 Jan 03 j 18:35	24° Ω 16′15		min. Earth dist.	-3173 Aug 27 j 08:25	9° ≈ 11'54	4.01026 AU
opposition	-3178 Mar 05 j 11:19	19° Ω 24'37	1°57'59	opposition	-3173 Aug 28 j 12:59	9° ≈ 02'12	-1°-57'-53
min. Earth dist.	-3178 Mar 06 j 17:45	19° Ω 14'55	4.37628 AU	direct	-3173 Oct 25 j 12:26	4°≈06'42	
	-3178 Apr 17 j 01:42	15°R Ω			-3172 Jan 21 j 05:15	15° ≈	
direct	-3178 May 07 j 02:39	14° Ω 23'51		evening set	-3172 Feb 27 j 20:55	23° ≈ 27'38	
	-3178 May 27 j 06:44	15° Ω					
	-3178 Aug 31 j 01:53	0° m)		conjunction	-3172 Mar 12 j 10:42	26° ≈ 39′02	-1°-19'00
evening set	-3178 Sep 10 j 15:02	2° m 19'09		minimum elong	-3172 Mar 12 j 10:43	26° ≈ 39'03	1°19'05
max. Earth dist.	-3178 Sep 21 j 08:54	4° Mp 43'01	6.33901 AU	max. Earth dist.	-3172 Mar 14 j 12:03	27° ≈ 08'04	6.03829 AU
				morning rise	-3172 Mar 26 j 02:56	29° ≈ 51'35	
conjunction	-3178 Sep 23 j 04:53	5° ™ 07'39	1°17'37		-3172 Mar 26 j 17:22	0°)	
minimum elong	-3178 Sep 23 j 04:55	5° ™ 07'39	1°17'41	retrograde	-3172 Aug 03 j 12:34	19°) 44′05	
morning rise	-3178 Oct 05 j 16:57	7° m 55'24		min. Earth dist.	-3172 Sep 30 j 18:52	14°) √ 49′12	4.08295 AU
retrograde	-3177 Feb 05 j 08:05	25° m 30'49		opposition	-3172 Oct 02 j 00:58	14°) 38′56	-1°-46'-57
opposition	-3177 Apr 07 j 07:16	20° m 38'50	1°40'34	direct	-3172 Nov 29 j 09:34	9°) 40′13	
min. Earth dist.	-3177 Apr 08 j 14:27	20° m 28'56	4.29251 AU	evening set	-3171 Apr 04 j 18:31		
direct	-3177 Jun 08 j 09:58	15° m 40'47			-3171 Apr 10 j 10:26	0 ° Υ	

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3171 in astronomical counting style is the year 3172 BCE in historical counting style. 1°**Υ**51'20 0°-58'-19 -3171 Apr 18 j 12:38 direct -3165 Jun 13 j 00:15 20° m 19'51 conjunction -3171 Apr 18 j 12:41 1°Y51'22 -3165 Sep 06 j 15:03 minimum elong 0°58'20 0∘⊽ 2°**Υ**15'24 max. Earth dist. -3171 Apr 20 j 06:36 -3165 Oct 16 j 10:52 6.13595 AU evening set 8°**£**36'16 -3171 May 02 j 07:46 5°**Y**00'34 -3165 Oct 27 j 14:07 11°**♀**09'41 max. Earth dist. 6.21918 AU morning rise -3171 Sep 06 j 07:43 23°Y54'53 retrograde -3171 Nov 04 j 18:34 18°**Y**51'44 0°-58'-51 -3165 Oct 29 j 00:34 11° \overline{\Omega}29'32 opposition conjunction 0°48'54 18°**Y**58'54 -3165 Oct 29 j 00:37 11° \alpha 29'34 min. Earth dist. -3171 Nov 03 j 21:28 4.19453 AU minimum elong 0°48'53 13°Y50'04 -3165 Nov 10 j 14:17 14°**£**23'03 direct -3170 Jan 03 j 05:01 morning rise -3170 Apr 29 j 11:32 0° 8 -3164 Jan 31 j 01:12 0°M evening set -3170 May 10 j 09:45 2°**8**24'25 retrograde -3164 Mar 15 j 19:02 $2^{\circ}\text{ML}58'05$ -3164 Apr 30 j 05:19 30°ŖΩ -3170 May 24 j 03:18 5°**8**28'09 0°-18'-24 -3164 May 15 j 19:01 conjunction opposition 28°**₽**03'39 0°42'12 -3170 May 24 j 03:20 -3164 May 16 j 13:53 minimum elong 5°**8**28'10 0°18'21 min. Earth dist. 27°**♀**57'36 4.15989 AU max. Earth dist. -3170 May 25 j 01:47 5°**8**40'42 6.25329 AU direct -3164 Jul 15 j 13:32 23°**♀**08'46 morning rise -3170 Jun 06 j 19:24 8°**8**31'00 -3164 Sep 22 j 15:19 0°M -3170 Jul 07 j 00:49 15°8 evening set -3164 Nov 17 j 04:17 11°ML51'02 retrograde -3170 Oct 08 j 08:55 26°\(\mathbb{2}25'58\) asc. node -3170 Nov 03 j 01:56 25°**8**21'27 conjunction -3164 Nov 29 j 22:06 14°M50'58 opposition -3170 Dec 06 j 22:48 21°**8**26'34 0°05'37 minimum elong -3164 Nov 29 j 22:07 14°M 50'58 0°05'30 min. Earth dist. -3170 Dec 06 j 16:39 21°**8**28'37 4.30640 AU behind sun begin -3164 Nov 29 j 14:22 14°M46'25 direct -3169 Feb 05 j 17:11 16°823'17 behind sun end -3164 Nov 30 j 05:52 14° ML55'31 -3169 May 23 j 03:18 $0^{\circ}\Pi$ max. Earth dist. -3164 Nov 29 i 08:14 14° ML42'48 6.10414 AU evening set -3169 Jun 13 j 08:23 4°**Ⅲ**31'58 -3164 Nov 30 i 13:28 15°M morning rise -3164 Dec 12 i 17:39 17°ML52'00 conjunction -3169 Jun 26 j 19:33 7°**II**29'02 0°25'56 desc. node -3163 Jan 14 j 18:47 25° ML 19'40 -3169 Jun 26 j 19:31 7°**Ⅱ**29'00 -3163 Feb 07 j 06:27 0°**√** minimum elong 0°26'01 max. Earth dist. -3169 Jun 26 j 14:51 7°**Ⅱ**26'27 -3163 Apr 21 j 06:06 6.35139 AU retrograde 7° × 25'32 -3169 Jul 10 j 04:04 10°**Ⅲ**24'38 opposition -3163 Jun 21 j 01:04 morning rise 2° × 27'29 0°-28'-18 -3169 Nov 08 j 06:52 27°**Д**37'55 min. Earth dist. -3163 Jun 21 j 00:12 retrograde 2°**尽**27'46 4.05574 AU -3168 Jan 07 j 04:37 22°**Ⅱ**42'20 1°05'43 -3163 Jul 10 j 18:59 30°RM opposition -3168 Jan 07 j 15:13 22°**Ⅲ**38'51 -3163 Aug 19 j 08:40 27°M34'22 min. Earth dist. 4.38416 AU direct -3168 Mar 09 j 03:04 17°**Ⅱ**38'45 -3163 Sep 27 j 07:49 0°**∡**¹ direct -3168 Jun 18 j 12:38 evening set -3163 Dec 21 j 17:34 16° ₹ 41'50 0.ಂತಾ -3168 Jul 14 j 17:31 evening set 5°931'22 -3162 Jan 03 j 17:47 19° **₹** 48'13 0°-41'-13 conjunction 1°01'36 -3168 Jul 27 j 19:51 -3162 Jan 03 j 17:44 19°**х** 48'11 0°41'20 conjunction 8°922'39 minimum elong -3168 Jul 27 j 19:48 -3162 Jan 04 j 07:49 19° ₹ 56'36 6.02057 AU minimum elong 8°9522'38 1°01'42 max. Earth dist. max. Earth dist. -3168 Jul 26 j 17:45 8°9508'24 6.40236 AU morning rise -3162 Jan 16 j 21:00 22° ₹ 56'17 morning rise -3168 Aug 09 j 18:42 11°512'18 -3162 Feb 16 j 14:44 0°る retrograde -3168 Dec 07 j 22:30 28°509'12 retrograde -3162 May 28 j 17:50 13°る12'14 -3167 Feb 06 j 06:44 23°5016'29 1°46'14 min. Earth dist. -3162 Jul 27 j 06:43 8° 중16'31 4.00205 AU opposition min. Earth dist. -3167 Feb 07 j 06:32 23°508'49 -3162 Jul 28 j 01:42 8°る10'10 -1°-30'-56 4.40653 AU opposition -3167 Apr 09 j 20:56 18°513'59 -3162 Sep 24 j 09:07 3°**ප**16'38 direct direct -3167 Jul 17 j 10:36 -3161 Jan 27 j 00:24 22°♂38'37 0° Ω evening set -3167 Aug 15 j 01:21 evening set 6°£02′51 -3161 Feb 09 i 08:05 25° ₹49'05 -1°-13'-26 max. Earth dist. -3167 Aug 26 j 01:33 8°**Ω**27'59 6.39306 AU conjunction minimum elong -3161 Feb 09 i 08:03 25°る49'03 1°13'32 conjunction -3167 Aug 27 j 19:20 8°**Ω**51′01 1°19'45 max. Earth dist. -3161 Feb 10 i 23:33 26°る12'37 6.00056 AU minimum elong -3167 Aug 27 i 19:18 8°**Ω**51′00 1°19'50 morning rise -3161 Feb 22 i 18:57 29°る01'12 $-3167 \text{ Sep } 09 \text{ j } 10:40 \quad 11^{\circ} \Omega 37'55$ -3161 Feb 26 j 22:36 morning rise 0°≈≈ $-3167 \text{ Sep } 25 \text{ j } 00:25 \quad 15^{\circ} \Omega$ -3161 May 11 j 21:39 15°≈ -3166 Jan 08 j 07:43 $28^{\circ}\Omega 45'07$ -3161 Jul 04 j 20:51 19°≈21'50 retrograde retrograde -3166 Mar 10 j 00:44 23°**Q**53'36 1°57'34 -3161 Aug 28 j 09:26 15°R≈ opposition -3161 Sep 01 j 10:38 14°≈27'08 4.01953 AU min. Earth dist. $-3166 \text{ Mar } 11 \text{ j } 08:56 \quad 23^{\circ} \Omega 43'21$ 4.36718 AU min. Earth dist. direct -3166 May 11 j 16:22 18°**Ω**53'11 opposition -3161 Sep 02 j 16:25 14°≈17'02 -1°-59'-2 -3166 Aug 14 j 00:50 0° m direct -3161 Oct 30 j 15:43 9°≈21'07 evening set -3166 Sep 15 j 00:17 6° m 50'31 -3161 Dec 30 j 03:30 15°≈ max. Earth dist. -3166 Sep 25 j 17:49 9° **m** 14'39 6.32597 AU -3160 Mar 04 j 03:31 evening set 28°≈39'10 -3160 Mar 09 j 21:50 0°**)**€ -3166 Sep 27 j 13:54 9° m 39'25 1°15'36 conjunction -3166 Sep 27 j 13:56 -3160 Mar 17 j 17:54 minimum elong 9° m 39'26 1°15'37 conjunction 1°**升**50′13 -1°-17′-41 morning rise -3166 Oct 10 j 01:50 12° m 27'40 minimum elong -3160 Mar 17 j 17:56 1°**)** 50'14 1°17'45 -3165 Jan 30 j 22:32 0∘**⊽** max. Earth dist. -3160 Mar 19 j 18:08 2°**)** 18'29 6.05235 AU retrograde -3165 Feb 10 j 01:03 0°**£**09'37 morning rise -3160 Mar 31 j 10:53 5°**)**€02'23 -3165 Feb 20 j 04:59 30°R M retrograde -3160 Aug 08 j 08:15 24° **★**46'24 -3165 Apr 12 j 01:52 25° m 17'28 -3160 Oct 06 j 21:36 19° **€**41'19 -1°-41'-55 opposition 1°35'21 opposition -3165 Apr 13 j 07:21 25° m 08'06 4.27637 AU min. Earth dist. -3160 Oct 05 j 16:04 19°¥51'24 4.10014 AU min. Earth dist.

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3160 in astronomical counting style is the year 3161 BCE in historical counting style. -3160 Dec 04 i 09:31 14° \(\frac{1}{2}\)(42'04 direct min. Earth dist. -3154 Mar 15 j 22:40 28° **Ω**14'02 4.35406 AU -3159 Mar 24 j 13:15 $0^{\circ}\Upsilon$ direct -3154 May 16 j 04:00 23°**Ω**24'05 -3159 Apr 09 j 20:33 3°**Y**39'20 -3154 Jul 25 j 06:15 0° m evening set -3154 Sep 19 j 10:55 11° m 24'34 evening set -3159 Apr 23 j 15:02 6°**Υ**47'37 0°-53'-30 -3154 Sep 30 j 04:35 13° **m** 49'23 conjunction max. Earth dist. 6.31026 AU 6°**Y**47′39 -3159 Apr 23 j 15:06 minimum elong 0°53'31 -3154 Oct 02 j 00:11 14° Mp 13'59 -3159 Apr 25 j 07:37 7°**Υ**10'47 max. Earth dist. 6.15491 AU conjunction 1°13'03 -3159 May 07 j 09:54 9°**Y**55'55 -3154 Oct 02 j 00:13 14° Mp 14'00 morning rise minimum elong 1°13'05 -3159 Sep 10 j 22:00 28°**Y**40′29 -3154 Oct 14 j 12:12 17° m 02'54 retrograde morning rise opposition -3159 Nov 09 j 08:34 23°**Y**37'48 0°-50'-15 -3154 Dec 18 j 16:47 0∘**⊽** min. Earth dist. -3159 Nov 08 j 13:50 23°**Y**44'09 4.21317 AU retrograde -3153 Feb 14 j 22:40 4°**£**52'11 -3158 Jan 08 j 00:10 18°**Y**35'49 -3153 Apr 16 j 22:31 direct opposition 29° m 59'50 1°29'24 -3153 Apr 16 j 21:59 -3158 Apr 12 j 00:46 0°8 30°R, Mp evening set -3158 May 15 j 05:42 7°**8**05'27 min. Earth dist. -3153 Apr 18 j 03:31 29° m 50'36 4.25903 AU direct -3153 Jun 17 j 18:08 25° m 02'37 conjunction -3158 May 28 j 22:32 10°808'13 0°-12'-8 -3153 Aug 15 j 16:30 0∘**⊽** minimum elong -3158 May 28 j 22:33 10°**8**08'13 0°12'05 evening set -3153 Oct 21 j 01:07 13°**♀**22'52 behind sun begin -3158 May 28 j 17:03 10°**8**05'10 max. Earth dist. -3153 Nov 01 j 07:45 15°**2**58'49 6.20188 AU behind sun end -3158 May 29 j 04:04 10°**8**11'17 max. Earth dist. -3158 May 29 j 16:05 10°**8**17'58 6.27004 AU conjunction -3153 Nov 02 j 15:19 16°**£**17'04 morning rise -3158 Jun 11 j 13:55 13°**8**10'01 minimum elong -3153 Nov 02 j 15:22 16°**£**17'06 0°43'25 -3158 Jun 19 i 22:12 15°8 morning rise -3153 Nov 15 j 05:41 19°**£**11'36 -3158 Sep 13 i 04:57 29°834'32 -3152 Jan 04 i 22:54 0°M asc. node -3158 Sep 18 j 06:34 retrograde -3152 Mar 20 j 21:03 7°M55'01 $0^{\circ}\Pi$ retrograde -3158 Oct 12 j 16:44 0°**I**57'36 opposition -3152 May 20 j 21:35 3°ML00'07 0°32'38 -3158 Nov 06 j 00:18 30°R8 min. Earth dist. -3152 May 21 j 12:52 2°ML55'12 4.14403 AU -3158 Dec 11 j 08:05 25° 858'43 0°14'40 -3152 Jun 15 j 01:24 30°R ₽ opposition -3158 Dec 11 j 04:31 25°859'54 4.32003 AU -3152 Jul 20 j 10:04 28°**♀**05'37 min. Earth dist. direct -3157 Feb 10 j 06:55 20°855'13 -3152 Aug 24 j 09:21 direct 0°M -3157 May 05 j 01:22 -3152 Nov 14 j 01:12 15°M $0^{\circ}\Pi$ -3157 Jun 17 j 22:36 -3152 Nov 22 j 00:10 16°M 51'19 9°**Ⅲ**01'07 evening set evening set -3152 Nov 23 j 08:16 17°ML10'10 desc. node -3157 Jul 01 j 08:46 11° **II** 57'20 0°31'40 conjunction -3157 Jul 01 j 08:43 11° **II** 57'18 0°31'46 -3152 Dec 04 j 18:41 19°ML52'08 0°-1'-24 minimum elong conjunction -3157 Jul 01 j 01:05 11°**Ⅲ**53'07 -3152 Dec 04 j 18:42 19°ML52'08 0°01'30 max. Earth dist. 6.36095 AU minimum elong -3157 Jul 14 j 15:52 14°**I**51'59 -3152 Dec 04 j 10:38 19°M47'24 morning rise behind sun begin -3157 Oct 07 j 08:26 0°95 -3152 Dec 05 j 02:46 19°M 56'53 behind sun end retrograde -3157 Nov 12 j 13:33 2°9501'48 max. Earth dist. -3152 Dec 04 j 09:04 19°M 46'27 6.09110 AU -3157 Dec 18 j 20:13 30°RⅢ morning rise -3152 Dec 17 j 15:13 22°ML54'11 opposition -3156 Jan 11 j 12:27 27°**Ⅱ**06'43 1°12'48 -3151 Jan 17 j 21:42 0° **尽** min. Earth dist. -3156 Jan 12 j 01:17 27°**Ⅲ**02'31 4.38918 AU retrograde -3151 Apr 26 j 13:36 12°**尽** 34'30 direct -3156 Mar 13 j 13:45 22°**Д**03'13 -3151 Jun 26 j 07:13 7° ₹ 35'50 0°-38'-25 opposition -3156 May 30 j 23:45 min. Earth dist. -3151 Jun 26 j 03:50 7° **₹** 36'57 4.04664 AU -3156 Jul 19 j 03:57 9°955'16 -3151 Aug 24 j 11:52 2° ₹ 42'46 evening set direct max. Earth dist. -3156 Jul 30 j 22:22 12°529'19 -3151 Dec 26 j 19:05 21° ₹ 52'13 6.40221 AU evening set -3150 Jan 08 j 20:20 24° ₹759'13 0°-47'-6 conjunction -3156 Aug 01 i 04:56 12°5046'02 1°05'20 conjunction -3150 Jan 08 i 20:17 24° ₹ 59'11 minimum elong -3156 Aug 01 i 04:53 12°5546'00 1°05'25 minimum elong morning rise -3156 Aug 14 i 02:48 15°535'14 max. Earth dist. -3150 Jan 09 j 15:15 25° ₹ 10'32 6.01609 AU -3156 Nov 01 j 07:14 morning rise -3150 Jan 22 j 00:33 28° ₹ 07'56 $0^{\circ}\Omega$ -3156 Dec 12 j 08:05 -3150 Jan 29 j 22:29 0°₹ retrograde 2°Ω32'56 -3155 Jan 22 j 19:08 30° R 55 -3150 Jun 03 j 01:10 18°る25'54 retrograde -3155 Feb 10 j 16:40 27°5040'29 1°49'43 -3150 Aug 01 j 09:59 13°る30'28 4.00297 AU opposition min Earth dist min. Earth dist. -3155 Feb 11 j 18:45 27°532'06 4.40157 AU opposition -3150 Aug 02 j 07:05 13°₹23'25 -1°-37'-28 direct -3155 Apr 14 j 08:08 22°538'10 direct -3150 Sep 29 j 12:10 8°**る**29'42 -3149 Feb 01 j 05:27 27°る51'17 -3155 Jun 28 j 11:54 0 $^{\circ}$ Ω evening set -3149 Feb 10 j 06:05 evening set -3155 Aug 19 j 10:18 10°**Ω**28'37 0°≈ max. Earth dist. -3155 Aug 30 j 09:53 12° **Ω**53'45 6.38361 AU -3149 Feb 14 j 13:57 conjunction 1°≈01'52 -1°-15'-53 -3155 Sep 01 j 03:39 $13^{\circ}\Omega$ 16'50 $1^{\circ}20'32$ -3149 Feb 14 j 13:55 conjunction minimum elong 1°≈01'51 1°16'00 -3155 Sep 01 j 03:38 $13^{\circ}\Omega$ 16'50 1° 20'37 minimum elong max. Earth dist. -3149 Feb 16 j 06:15 1°**≈**25'52 6.00634 AU -3155 Sep 08 j 22:17 15° Ω morning rise -3149 Feb 28 j 01:52 4°≈14'08 morning rise -3155 Sep 13 j 18:08 $16^{\circ}\Omega$ 03'48 -3149 Apr 17 j 17:21 15°**≈** -3155 Nov 26 j 23:07 0° m retrograde -3149 Jul 09 j 21:37 24°≈30'59 retrograde -3154 Jan 12 j 20:12 3° Mp 15'33 min. Earth dist. -3149 Sep 06 j 10:43 19°≈36'25 4.02968 AU -3154 Mar 01 j 19:48 30°RΩ -3149 Sep 07 j 17:23 19°≈25'59 opposition -1°-59'-17 -3154 Mar 14 j 15:04 28° **Ω**24'05 1°56'26 -3149 Oct 18 j 14:40 15°R≈ opposition

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3149 in astronomical counting style is the year 3150 BCE in historical counting style. direct -3149 Nov 04 i 17:17 14°≈29'38 -3143 Mar 04 i 08:19 30°R 55 -3149 Nov 21 j 22:23 15°≈ -3143 Apr 18 j 19:29 27°506'08 direct -3148 Feb 21 j 23:50 -3143 Jun 03 j 03:07 0°\ $0^{\circ}\Omega$ -3148 Mar 09 j 07:52 3°**)**(44'56 evening set -3143 Aug 23 j 20:19 14° **Ω** 57'59 evening set -3143 Aug 24 j 00:00 15°**Ω** -3148 Mar 22 j 23:09 6°**)** 55'44 -1°-15'-50 -3143 Sep 03 j 17:07 17°**Ω**22'00 6.37495 AU conjunction max. Earth dist. minimum elong -3148 Mar 22 j 23:12 6°**¥**55'46 1°15'53 max. Earth dist. -3148 Mar 25 j 00:00 7°**∺**24'16 6.06605 AU conjunction -3143 Sep 05 j 12:43 $17^{\circ}\Omega 46'10$ 1°20'53 -3143 Sep 05 j 12:43 17°**Ω**46'10 morning rise -3148 Apr 05 j 16:30 10°**米**07'27 minimum elong 1°20'57 retrograde -3148 Aug 13 j 04:35 29°**)** 43′35 morning rise -3143 Sep 18 j 02:44 $20^{\circ} \Omega 33'15$ opposition -3148 Oct 11 j 16:25 24°**)** 38'46 -1°-36'-18 -3143 Nov 02 j 21:58 0°m -3148 Oct 10 j 12:42 -3142 Jan 17 j 11:47 min. Earth dist. 24°**)** 48'14 4.11582 AU retrograde 7° m/49'19 -3142 Mar 19 j 06:46 direct -3148 Dec 09 j 08:02 19° ★ 39'09 opposition 2° m 57'50 1°54'38 -3147 Mar 06 j 09:26 $0^{\circ}\Upsilon$ min. Earth dist. -3142 Mar 20 j 14:36 2° m 47'42 4.34254 AU evening set -3147 Apr 14 j 21:20 8°Y32'29 -3142 Apr 13 j 06:16 30°RΩ direct -3142 May 20 j 18:10 27°**Ω**58'12 conjunction -3147 Apr 28 j 15:50 11°**Υ**'40'07 0°-48'-24 -3142 Jun 27 j 02:00 minimum elong -3147 Apr 28 j 15:54 11°**Υ**'40'09 evening set -3142 Sep 23 j 21:38 16° Mp 00'59 max. Earth dist. $-3147 \text{ Apr } 30 \text{ j } 05:09 \quad 12^{\circ} \Upsilon 01'19$ 6.17131 AU max. Earth dist. -3142 Oct 04 j 17:52 18° m 27'40 6.29706 AU morning rise -3147 May 12 j 10:40 14°**Υ**47'39 -3147 Jul 30 j 08:53 0°8 conjunction -3142 Oct 06 j 10:54 18° m 50'53 1°10'06 retrograde -3147 Sep 15 i 09:52 3°**8**23'44 minimum elong -3142 Oct 06 i 10:57 18° m 50'55 1°10'07 -3147 Nov 01 i 13:09 30°R**℃** morning rise -3142 Oct 18 j 22:49 21° m 40'21 opposition $-3147 \text{ Nov } 13 \text{ j } 21:30 \quad 28^{\circ} \Upsilon 21'34 \quad 0^{\circ} -41'-27$ -3142 Nov 26 j 20:58 0∘**⊽** min. Earth dist. -3147 Nov 13 j 04:15 28°**Y**27'24 4.22880 AU retrograde -3141 Feb 19 j 18:18 9°**£**36'04 -3146 Jan 12 j 16:52 23°**Y**19'17 -3141 Apr 21 j 19:24 4°**£**43'26 1°22'54 direct opposition -3146 Mar 22 j 20:45 0°8 min. Earth dist. -3141 Apr 22 j 22:07 4°**2**34'55 4.24504 AU -3146 May 20 j 01:09 11°**8**45'33 -3141 Jun 10 j 11:42 30°R M evening set -3141 Jun 22 j 10:40 29° Mp 46'41 direct -3146 Jun 02 j 17:22 14°**8**47'29 0°-5'-51 -3141 Jul 04 j 10:11 0∘**⊽** conjunction -3146 Jun 02 j 17:23 14°**8**47'29 0°05'48 -3141 Oct 25 j 15:11 18° **2**09'27 minimum elong evening set -3146 Jun 02 j 09:28 14°**8**43'06 -3141 Nov 06 j 00:26 20°**£**47'26 behind sun begin max. Earth dist. 6.18840 AU -3146 Jun 03 j 01:18 14°**8**51'52 behind sun end -3141 Nov 07 j 05:37 21°**△**04'21 -3146 Jun 03 j 07:09 14°**8**55'07 max. Earth dist. 6.28390 AU conjunction 0°37'46 -3146 Jun 03 j 15:56 15°**8** -3141 Nov 07 j 05:39 21°**♀**04'22 minimum elong 0°37'43 -3146 Jun 16 j 07:48 17°**8**48'20 -3141 Nov 19 j 20:40 23°**⊆**59'44 morning rise morning rise -3146 Jul 24 j 02:07 25°**8**45'09 -3141 Dec 16 j 15:35 0°M asc. node -3146 Aug 16 j 16:40 0°**Ⅱ** retrograde -3140 Mar 25 j 22:55 12°**™**50'08 retrograde -3146 Oct 17 j 02:49 5°**Ⅲ**29'47 opposition -3140 May 25 j 23:00 7°ML54'42 0°22'58 opposition -3146 Dec 15 j 17:48 0°**Д**31'31 0°23'38 min. Earth dist. -3140 May 26 j 12:00 7°M50'30 4.13189 AU min. Earth dist. -3146 Dec 15 j 17:12 0°**Д**31'43 4.33100 AU direct -3140 Jul 25 j 08:01 3°ML00'27 -3146 Dec 19 j 16:47 30°R8 -3140 Oct 03 j 00:43 10°ML02'07 desc. node -3145 Feb 14 j 21:11 25°**8**27'58 -3140 Oct 27 j 19:39 15°M direct -3145 Apr 12 j 17:10 0°**П** -3140 Nov 26 j 18:43 21°ML48'19 evening set -3145 Jun 22 j 13:02 13°**Д**31'51 evening set -3140 Dec 09 i 14:08 24° ML49'54 0°-8'-9 conjunction -3145 Jul 05 j 21:59 16°**Д**27'18 0°37'14 -3140 Dec 09 i 14:08 24° ML49'54 conjunction minimum elong -3145 Jul 05 j 21:57 16°**Д**27'17 0°37'20 -3140 Dec 09 i 06:58 24° ML 45'41 minimum elong behind sun begin -3145 Jul 05 j 10:04 16°**Д**20'47 6.36805 AU max. Earth dist. behind sun end -3140 Dec 09 j 21:17 24° M 54'07 -3145 Jul 19 i 03:54 19°**Ⅲ**21'11 max. Earth dist. -3140 Dec 09 j 09:07 24°M 46'57 6.08154 AU morning rise -3145 Sep 10 j 08:06 morning rise -3140 Dec 22 j 11:30 27° ML52'45 000 -3145 Nov 16 j 21:27 -3140 Dec 31 j 13:22 retrograde 6°928'29 0°**√** -3139 May 01 j 17:59 17°**⋌**¹38'13 -3144 Jan 15 j 21:33 1°933'51 1°19'34 retrograde opposition 1°529'02 4.39228 AU min. Earth dist. -3144 Jan 16 j 12:20 opposition -3139 Jul 01 j 10:40 12°**₹**39'00 0°-47'-59 4.04069 AU -3144 Jan 28 j 02:20 30°R II min. Earth dist. -3139 Jul 01 j 04:41 12°**∡** 40'58 direct -3144 Mar 18 j 00:48 26°**Ⅲ**30'26 direct -3139 Aug 29 j 11:38 7°**∡**°45'58 -3144 May 06 j 23:58 0ಂತಾ evening set -3139 Dec 31 j 18:26 26° ₹ 56'26 -3144 Jul 23 j 15:05 14°522'22 evening set -3144 Aug 04 j 07:17 16°55'20 -3138 Jan 13 j 20:26 0°る03'52 0°-52'-28 max. Earth dist. 6.40106 AU conjunction -3138 Jan 13 j 20:23 0°**る**03'51 minimum elong 0°52'35 -3138 Jan 13 j 13:57 0°궁 conjunction -3144 Aug 05 j 14:57 17°\$12'41 1°08'44 minimum elong -3144 Aug 05 j 14:55 17°512'40 1°08'50 max. Earth dist. -3138 Jan 14 j 17:22 0°る16'23 6.01396 AU morning rise -3144 Aug 18 j 11:30 20°501'25 morning rise -3138 Jan 27 j 01:47 3°**る**13′06 retrograde -3144 Oct 06 j 21:00 0 $^{\circ}$ Ω -3138 Jun 08 j 03:34 23°♂32'10 retrograde -3144 Dec 16 j 17:57 7°**Ω**00′15 min. Earth dist. -3138 Aug 06 j 09:55 18°₹36'56 4.00503 AU -3143 Feb 15 j 03:49 2°₽08'06 -3138 Aug 07 j 09:04 18°る29'09 opposition 1°52'38 opposition -1°-43'-2

min. Earth dist.

-3143 Feb 16 j 06:55

1°**Ω**59'25 4.39650 AU

direct

-3138 Oct 04 j 12:24 13°₹35'06

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 24 Attention, astronomical year style is used: The year -3137 in astronomical counting style is the year 3138 BCE in historical counting style.

Attention, astronom	ical year style is used: The	-	in astronomical co	ounting style is the year	3138 BCE in historical	counting style	
	-3137 Jan 24 j 18:52	0° ≈		evening set	-3132 Jul 28 j 01:55	18°9548'42	
evening set	-3137 Feb 06 j 07:31	2° ≈ 56'03		max. Earth dist.	-3132 Aug 08 j 14:31	21° © 19'52	6.40034 AU
conjunction	-3137 Feb 19 j 17:06		-1°-17'-41	conjunction	-3132 Aug 10 j 00:36		1°11'43
minimum elong	-3137 Feb 19 j 17:05	6°≈06'46	1°17'48	minimum elong	-3132 Aug 10 j 00:33		1°11'50
max. Earth dist.	-3137 Feb 21 j 12:09	6°≈32'22	6.01231 AU	morning rise	-3132 Aug 22 j 20:05		
morning rise	-3137 Mar 05 j 05:42	9° ≈ 19'04			-3132 Sep 18 j 00:33	0°N	
	-3137 Mar 29 j 22:36			retrograde	-3132 Dec 21 j 03:53		1954152
retrograde min. Earth dist.	-3137 Jul 14 j 21:26		4.03896 AU	opposition min. Earth dist.	-3131 Feb 19 j 15:17	6° Ω 34'40 6° Ω 25'48	1°54'53 4.39252 AU
opposition	-3137 Sep 11 j 09:16 -3137 Sep 12 j 15:00		4.03896 AU -1°-58'-39	direct	-3131 Feb 20 j 18:58 -3131 Apr 23 j 06:38	1° Ω 32'56	4.39232 AU
direct	-3137 Sep 12 j 13:00 -3137 Nov 09 j 16:36		-1 -36-39	direct	-3131 Apr 23 j 00:38		
direct	-3136 Feb 04 j 01:27	0° ₩		evening set	-3131 Aug 07 j 10:44 -3131 Aug 28 j 05:20		
evening set	-3136 Mar 14 j 09:45			max. Earth dist.	-3131 Sep 08 j 02:40		6 36781 AU
e vening sec	3130 Mai 113 07.10	0 7(150)		max. Earth dist.	3131 Sep 00 j 02.10	21 0630 03	0.50701710
conjunction	-3136 Mar 28 j 01:40	11°) 53'44	-1°-13'-29	conjunction	-3131 Sep 09 j 21:05	22° Ω 13'37	1°20'45
minimum elong	-3136 Mar 28 j 01:43			minimum elong	-3131 Sep 09 j 21:05		
max. Earth dist.	-3136 Mar 30 j 00:58		6.07772 AU	morning rise	-3131 Sep 22 j 10:21		
morning rise	-3136 Apr 10 j 19:39	15°) 05′09		•	-3131 Oct 15 j 12:59	0° m	
	-3136 Jun 23 j 17:34	0° Υ		retrograde	-3130 Jan 22 j 01:31	12° m 20'39	
retrograde	-3136 Aug 17 j 20:29	4° Ƴ 34'07		opposition	-3130 Mar 23 j 21:49	7° m 29'08	1°52'08
	-3136 Oct 12 j 15:11	30° ₹		min. Earth dist.	-3130 Mar 25 j 05:30	7° m 19'04	4.33244 AU
min. Earth dist.	-3136 Oct 15 j 05:15	29°) 38′52	4.12875 AU	direct	-3130 May 25 j 07:29	2° m 29'55	
opposition	-3136 Oct 16 j 08:28	29° ∺ 29'34	-1°-30'-12	evening set	-3130 Sep 28 j 07:27	20° Mp 34'29	
direct	-3136 Dec 14 j 02:27	24°) €29'32		max. Earth dist.	-3130 Oct 09 j 03:07	23° m 01'21	6.28457 AU
	-3135 Feb 13 j 01:03	0° Y					
evening set	-3135 Apr 19 j 20:02	13° Y 20′05		conjunction	-3130 Oct 10 j 20:28	23° Mp 24'49	1°06'43
				minimum elong	-3130 Oct 10 j 20:31	23°M 24'51	1°06'44
conjunction	-3135 May 03 j 14:39		0°-43'-5	morning rise	-3130 Oct 23 j 08:40		
minimum elong	-3135 May 03 j 14:42		0°43'04		-3130 Nov 09 j 05:34	0∘ ⊽	
max. Earth dist.	, ,		6.18468 AU	retrograde	-3129 Feb 24 j 14:00		
morning rise				opposition	-3129 Apr 26 j 15:14		1°15'54
	-3135 Jul 06 j 03:33	0°8		min. Earth dist.	-3129 Apr 27 j 16:40		4.23066 AU
retrograde	-3135 Sep 19 j 23:06			direct	-3129 Jun 27 j 02:58	4° £ 27'40	
opposition	-3135 Nov 18 j 09:27			evening set	-3129 Oct 30 j 04:04	22° £ 53'25	
min. Earth dist.	-3135 Nov 17 j 19:11	3° 8 06'11	4.24126 AU	. ,.	2120 N 11 : 10 10	250 0 40110	0021152
I'	-3135 Dec 12 j 12:23			conjunction	-3129 Nov 11 j 19:10		
direct	-3134 Jan 17 j 09:42 -3134 Feb 22 j 16:51			minimum elong max. Earth dist.	-3129 Nov 11 j 19:12 -3129 Nov 10 j 17:32		
	-3134 May 18 j 12:36			morning rise	-3129 Nov 10 j 17.32 -3129 Nov 24 j 10:48		0.1/34/ AU
evening set	-3134 May 24 j 19:29			morning rise	-3129 Nov 24 j 10.48 -3129 Nov 29 j 20:10	28 = 43 30 0° M	
asc. node	-3134 Jun 03 j 07:50				-3128 Feb 17 j 06:22		
asc. node	-3134 Juli 03 j 07.30	10 02033		retrograde	-3128 Mar 31 j 00:07		
conjunction	-3134 Jun 07 j 11:04	19° 8 23'56	0°00'29	retrograde	-3128 May 13 j 06:21		
minimum elong	-3134 Jun 07 j 11:04		0°00'34	opposition	-3128 May 30 j 23:45		0°13'09
behind sun begin	-3134 Jun 07 j 02:47			min. Earth dist.	-3128 May 31 j 10:42		4.11748 AU
behind sun end	-3134 Jun 07 j 19:21			direct	-3128 Jul 30 j 04:23	7°M53'53	
max. Earth dist.	-3134 Jun 07 j 21:52	19° 8 29'54	6.29467 AU	desc. node	-3128 Aug 12 j 19:27	8°M11'57	
morning rise	-3134 Jun 21 j 00:32	22° 8 23'57			-3128 Oct 08 j 02:09	15°M	
	-3134 Jul 27 j 02:11	$\Pi^{\circ}0$		evening set	-3128 Dec 01 j 13:20	26°M45'12	
retrograde	-3134 Oct 21 j 10:40	10° Ⅱ 00′22					
opposition	-3134 Dec 20 j 03:11	5° Ⅱ 02'38	0°32'22	conjunction	-3128 Dec 14 j 09:26	29°M47'40	0°-14'-51
min. Earth dist.	-3134 Dec 20 j 03:53	5° Ⅱ 02'24	4.33954 AU	minimum elong	-3128 Dec 14 j 09:24	29°M47'39	0°14'57
	-3133 Feb 16 j 04:43	30° ₹ 8		behind sun begin	-3128 Dec 14 j 06:10	29°M45'44	
direct	-3133 Feb 19 j 08:53	29° 8 59'03		behind sun end	-3128 Dec 14 j 12:39	29°M49'34	
	-3133 Feb 22 j 13:22	Π $^{\circ}0$		max. Earth dist.	-3128 Dec 14 j 06:27		6.06881 AU
evening set	-3133 Jun 27 j 03:18	18° Ⅱ 01'35			-3128 Dec 15 j 06:14	0° ∡ ¹	
		_		morning rise	-3128 Dec 27 j 07:59	2° ₹ '51'33	
conjunction	-3133 Jul 10 j 11:00		0°42'34	retrograde	-3127 May 06 j 22:41	22° ∡ 43'45	
minimum elong	-3133 Jul 10 j 10:57		0°42'39	opposition	-3127 Jul 06 j 14:24	17° ∡ 743'58	0°-57'-18
max. Earth dist.	-3133 Jul 09 j 20:11		6.37380 AU	min. Earth dist.	-3127 Jul 06 j 05:29		4.03092 AU
morning rise	-3133 Jul 23 j 15:37			direct	-3127 Sep 03 j 11:24		
	-3133 Aug 21 j 23:06	0°95		i	-3127 Dec 28 j 00:57	0°る	
retrograde	-3133 Nov 21 j 06:49		1925140	evening set	-3126 Jan 05 j 19:13	2° る 04'14	
opposition	-3132 Jan 20 j 06:58	6°900'24	1°25'49	aamin	2126 I 10 : 22 25	50=210105	00 571 20
min. Earth dist. direct	-3132 Jan 21 j 00:02 -3132 Mar 22 j 13:13	5° © 54'51 0° © 57'09	4.39505 AU	conjunction minimum elong	-3126 Jan 18 j 22:25 -3126 Jan 18 j 22:22	5°る12'25 5°る12'23	0°-57'-30 0°57'36
direct	5152 Iviai 22 J 15.15	0 -20109		minimum ciong	3120 Jan 10 J 22.22	5 01223	0 5/30

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3126 in astronomical counting style is the year 3127 BCE in historical counting style. max. Earth dist. -3126 Jan 20 i 00:00 5°る27'43 6.00801 AU retrograde -3121 Nov 25 j 11:54 15°5018'15 8°る22'20 opposition -3126 Feb 01 j 04:42 -3120 Jan 24 j 15:29 10°524'23 1°31'25 morning rise -3126 Jun 13 j 10:06 28°る43'52 min. Earth dist. -3120 Jan 25 j 09:21 10°5518'35 4.40419 AU retrograde -3126 Aug 12 j 12:41 23°₹40'28 -1°-47'-57 -3120 Mar 26 j 23:36 direct opposition 5°**©**21'15 -3126 Aug 11 j 12:57 23°중48'27 evening set -3120 Aug 01 j 10:21 23°510'03 min. Earth dist. 4.00371 AU -3126 Oct 09 j 14:46 18°**3**46'07 -3120 Aug 12 j 19:59 25°539'34 direct max. Earth dist. 6.40552 AU -3125 Jan 06 j 16:40 0°≈ -3120 Aug 14 j 07:42 25°559'09 evening set -3125 Feb 11 j 12:38 8°≈07'57 conjunction 1°14'12 -3120 Aug 14 j 07:40 25°559'08 minimum elong 1°14'17 -1°-18'-56 -3120 Aug 27 j 02:00 28°546'46 conjunction -3125 Feb 24 j 23:10 11°≈18'59 morning rise -3120 Sep 01 j 16:59 minimum elong -3125 Feb 24 j 23:10 11°≈18'59 1°19'01 $0^{\circ}\Omega$ -3125 Feb 26 j 19:17 11°≈45'09 -3120 Dec 03 j 07:29 15°**Ω** max. Earth dist. 6.01546 AU -3120 Dec 25 j 11:01 15° Ω 45'48 morning rise -3125 Mar 10 j 12:54 14°≈31'34 retrograde -3119 Jan 16 j 13:43 15°R**Ω** -3125 Mar 12 j 13:20 15°≈ -3125 May 24 j 23:25 0°**)**€ opposition -3119 Feb 23 j 23:55 10°**Ω**53'58 1°56'20 retrograde -3125 Jul 19 j 22:25 4°**)**€41'12 min. Earth dist. -3119 Feb 25 j 05:33 10° Ω 44'30 4.39330 AU -3125 Sep 14 j 16:51 30°R≈ direct -3119 Apr 27 j 17:12 5°**£**52′30 min. Earth dist. -3125 Sep 16 j 08:21 29°≈46'33 4.04642 AU -3119 Jul 21 j 09:10 15°**Ω** opposition -3125 Sep 17 j 15:13 29°≈36'02 -1°-57'-6 evening set -3119 Sep 01 j 10:40 $23^{\circ}\Omega 44'05$ direct -3125 Nov 14 j 16:55 24°≈38'49 max. Earth dist. $-3119 \text{ Sep } 12 \text{ j } 05:02 \quad 26^{\circ} \Omega 07'16$ 6.36391 AU -3124 Jan 12 j 18:04 0°**₩** evening set -3124 Mar 19 j 15:04 13° ¥ 50'20 conjunction -3119 Sep 14 i 01:40 $26^{\circ}\Omega$ 32'05 1°20'07 minimum elong -3119 Sep 14 i 01:41 $26^{\circ}\Omega$ 32'06 1°20'11 conjunction -3124 Apr 02 i 07:41 17° ¥ 00'44 -1°-10'-30 morning rise -3119 Sep 26 j 14:31 29°**Ω**19'09 minimum elong -3124 Apr 02 i 07:45 17°\ 00'46 1°10'33 -3119 Sep 29 j 16:31 0° m max. Earth dist. -3124 Apr 04 j 05:53 17°**)** €27'33 6.08895 AU retrograde -3118 Jan 26 j 11:04 16° mp 42'09 -3124 Apr 16 j 02:06 20° ¥ 11'50 -3118 Mar 28 j 08:58 11° mp 50'28 1°49'01 morning rise opposition -3124 May 31 j 06:24 $0^{\circ}\Upsilon$ min. Earth dist. -3118 Mar 29 j 16:32 11° mp 40'25 4.32395 AU -3124 Aug 22 j 17:32 9°Y33'40 -3118 May 29 j 16:37 6° m 51'30 retrograde direct -3124 Oct 20 j 02:31 -3118 Oct 02 j 12:51 24° m 57'31 4°**Υ**38'03 4.14248 AU min. Earth dist. evening set -3124 Oct 21 j 03:53 4°**Υ**29'24 -1°-23'-16 max. Earth dist. -3118 Oct 13 j 10:12 27° m 25'42 opposition 6.27222 AU -3124 Dec 01 j 12:22 30°R € -3124 Dec 19 j 02:14 29°**∺**28'58 -3118 Oct 15 j 01:58 27° mp 48'21 1°03'04 direct conjunction -3118 Oct 15 j 02:01 27° Mp 48'23 1°03'04 -3123 Jan 05 j 18:16 0°**Υ** minimum elong -3123 Apr 24 j 22:00 18°**Υ**16'13 -3118 Oct 24 j 17:24 0°**♀** evening set -3118 Oct 27 j 14:13 0°**₽**39'00 morning rise -3123 May 08 j 16:39 21° **Y** 22'40 0° -37'-19 -3117 Mar 01 j 05:52 18°**♀**47'49 conjunction retrograde minimum elong -3123 May 08 j 16:42 21°**Υ**22'42 0°37'18 opposition -3117 May 01 j 07:08 13°**£**54'35 1°08'41 max. Earth dist. -3123 May 10 j 01:24 21°**Υ**'41'10 6.20031 AU min. Earth dist. -3117 May 02 j 08:19 13°**△**46'33 4.21496 AU morning rise -3123 May 22 j 10:48 24°**Y**28'41 direct -3117 Jul 01 j 15:38 8°**≏**58'31 -3123 Jun 16 j 17:24 0°8 evening set -3117 Nov 03 j 13:40 27°**△**28'00 retrograde -3123 Sep 24 j 12:01 12°849'21 -3117 Nov 14 j 10:50 -3123 Nov 22 j 23:42 7°**8**48'13 0°-23'-16 max. Earth dist. -3117 Nov 15 j 03:45 0°ML09'52 6.15579 AU opposition min. Earth dist. -3123 Nov 22 j 10:03 7°**と**52'49 4.25761 AU -3122 Jan 22 j 03:03 2°**8**45'31 conjunction -3117 Nov 16 j 05:11 0°M24'43 0°25'58 direct -3122 Apr 12 j 10:48 11°**8**21'12 -3117 Nov 16 i 05:13 0°M24'44 asc. node minimum elong 0°25'55 -3117 Nov 28 j 21:48 -3122 May 01 i 02:35 15°**8** morning rise 3°M22'12 -3122 May 29 j 15:52 21°**8**05'20 evening set -3116 Jan 22 i 10:33 15°M -3116 Apr 04 j 22:10 22° M29'27 retrograde conjunction -3122 Jun 12 j 06:24 24°**8**05'28 0°06'52 opposition -3116 Jun 04 j 21:11 17°M 33'06 0°03'32 -3122 Jun 12 j 06:23 24°**8**05'27 0°06'58 min. Earth dist. -3116 Jun 05 j 05:37 17° M 30'22 4.09913 AU minimum elong behind sun begin -3122 Jun 11 j 22:45 24°801'15 desc. node -3116 Jun 24 j 13:34 15° ML07'09 behind sun end -3122 Jun 12 j 14:01 24°**8**09'39 -3116 Jun 25 j 15:20 15°RM -3122 Jun 12 j 13:18 24°**8**09'16 6.31081 AU max. Earth dist. direct -3116 Aug 03 j 20:32 12°M39'18 -3116 Sep 11 j 10:08 15°M morning rise -3122 Jun 25 j 18:50 27°**8**04'21 -3122 Jul 09 j 06:35 Π $^{\circ}0$ -3116 Nov 29 j 10:51 0°⊀ -3122 Oct 25 j 20:57 14°**Д**33'49 retrograde evening set -3116 Dec 06 j 06:04 1°**х** 36′00 -3122 Dec 24 j 13:53 9°**Д**36'35 0°40'55 opposition min. Earth dist. -3122 Dec 24 j 17:20 9°**Ⅲ**35'27 4.35433 AU conjunction -3116 Dec 19 j 03:18 4°**×**³39'41 0°-21'-15 -3121 Feb 24 j 01:00 4°**Ⅲ**32'58 -3116 Dec 19 j 03:16 4°**₹**³39'40 direct minimum elong 0°21'22 -3121 Jul 01 j 16:58 22°**Ⅲ**31'34 4°**∡**°40′29 evening set max. Earth dist. -3116 Dec 19 j 04:38 6.05164 AU morning rise -3115 Jan 01 j 02:51 7°**∡**¹44'49 conjunction -3121 Jul 14 j 23:26 25°**Ⅲ**25'14 0°47'36 retrograde -3115 May 12 j 04:46 27° ₹ 45'28 minimum elong -3121 Jul 14 j 23:23 25°**Ⅲ**25'12 0°47'41 opposition -3115 Jul 11 j 16:43 22° ₹ 45'12 -1°-6'00 max. Earth dist. -3121 Jul 14 j 06:46 25°**Ⅲ**16'07 6.38609 AU min. Earth dist. -3115 Jul 11 j 06:26 22° ₹ 48'36 4.01671 AU -3121 Jul 28 j 02:33 28°**Ⅲ**17'14 -3115 Sep 08 j 09:47 17° ₹ 52'06 morning rise direct -3121 Aug 05 j 00:52 -3115 Dec 10 j 17:06

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 26 Attention, astronomical year style is used: The year -3114 in astronomical counting style is the year 3115 BCE in historical counting style.

Attention, astronom	ical year style is used: The	he year -3114	in astronomical con	unting style is the year	3115 BCE in historical	counting style	-
evening set	-3114 Jan 10 j 20:08	7° る 10'18		conjunction	-3109 Jul 19 j 11:54	29° Ⅱ 55′04	0°52'26
				minimum elong	-3109 Jul 19 j 11:51	29° Ⅱ 55'03	0°52'33
conjunction	-3114 Jan 24 j 00:23	10° る 19'26	-1°-1'-59	max. Earth dist.	-3109 Jul 18 j 14:51		6.39415 AU
minimum elong	-3114 Jan 24 j 00:20	10° る 19'24	1°02'06		-3109 Jul 19 j 20:55	0 \circ \odot	
max. Earth dist.	-3114 Jan 25 j 04:22	10° ප 36'12	5.99795 AU	morning rise	-3109 Aug 01 j 13:46	2°5946'14	
morning rise	-3114 Feb 06 j 08:04	13° る 30'23		retrograde	-3109 Nov 29 j 21:11	19° © 44'52	
	-3114 Apr 28 j 13:54	0° ≈		opposition	-3108 Jan 29 j 01:19	14° © 51'24	1°36'42
retrograde	-3114 Jun 18 j 15:13	3° ≈ 55'40		min. Earth dist.	-3108 Jan 29 j 22:13	14° 5 44'38	4.40776 AU
	-3114 Aug 09 j 04:52	30°Ŗる		direct	-3108 Mar 31 j 12:52	9° 5 48'25	
opposition	-3114 Aug 17 j 16:20		-1°-51'-56	evening set	-3108 Aug 05 j 20:17	27° © 36'31	
min. Earth dist.	-3114 Aug 16 j 13:49	29° る 00'50	3.99927 AU		-3108 Aug 16 j 18:40	0 $^{\circ}\Omega$	
direct	-3114 Oct 14 j 15:20	23° る 57'16		max. Earth dist.	-3108 Aug 17 j 03:07	0° Ω 04'38	6.40405 AU
	-3114 Dec 16 j 05:48	0° ≈					
evening set	-3113 Feb 16 j 18:59	13° ≈ 21′10		conjunction	-3108 Aug 18 j 16:40	0° Ω 25'14	1°16'23
	-3113 Feb 23 j 18:20	15° ≈		minimum elong	-3108 Aug 18 j 16:38	0° Ω 25'13	1°16'28
				morning rise	-3108 Aug 31 j 09:53	3° £ 12′30	
conjunction	-3113 Mar 02 j 06:39	16° ≈ 32'38	-1°-19'-28		-3108 Oct 30 j 12:44	15° Ω	
minimum elong	-3113 Mar 02 j 06:39	16° ≈ 32'38	1°19'33	retrograde	-3108 Dec 29 j 20:41	20° Ω 13'15	
max. Earth dist.	-3113 Mar 04 j 04:45	16° ≈ 59'57	6.01693 AU	opposition	-3107 Feb 28 j 11:53	15° Ω 21'31	1°57'19
morning rise	-3113 Mar 15 j 21:18	19° ≈ 45'32		min. Earth dist.	-3107 Mar 01 j 17:42		4.38712 AU
	-3113 May 01 j 04:27	0° ∀			-3107 Mar 03 j 07:18	15° R Ω	
retrograde	-3113 Jul 25 j 01:43	9°) 52′10		direct	-3107 May 02 j 04:03	10° Ω 20′21	
min. Earth dist.	-3113 Sep 21 j 09:37	4° 升 57′21	4.05348 AU		-3107 Jun 29 j 11:25	15° Ω	
opposition	-3113 Sep 22 j 16:14	4°) 46′53	-1°-54'-33	evening set	-3107 Sep 05 j 19:39	28° Ω 13′20	
	-3113 Nov 09 j 14:55	30°R ≈			-3107 Sep 13 j 19:48	0° m)	
direct	-3113 Nov 19 j 20:31	29° ≈ 49′11		max. Earth dist.	-3107 Sep 16 j 13:33	0° ™ 36'40	6.35341 AU
	-3113 Nov 30 j 01:48	0° ∀					
evening set	-3112 Mar 24 j 21:41	18° ¥ 59'03		conjunction	-3107 Sep 18 j 10:05	1°Mp01'31	1°19'05
				minimum elong	-3107 Sep 18 j 10:06	1°Mp01'31	1°19'08
conjunction	-3112 Apr 07 j 15:05		-1°-6'-55	morning rise	-3107 Sep 30 j 22:30	3°M/48'51	
minimum elong	-3112 Apr 07 j 15:09	22° ∺ 09'17	1°06'57	retrograde	-3106 Jan 31 j 03:31	21°M)17'16	
max. Earth dist.	-3112 Apr 09 j 14:27	22°) 36′38	6.10099 AU	opposition	-3106 Apr 02 j 01:44	16° Mp 25'30	1°45'12
morning rise	-3112 Apr 21 j 09:47			min. Earth dist.	-3106 Apr 03 j 09:59	16° m 15'15	4.30967 AU
	-3112 May 12 j 03:53	0 ° $\mathbf{\Upsilon}$		direct	-3106 Jun 03 j 07:53	11°M)26'57	
retrograde	-3112 Aug 27 j 13:06			evening set	-3106 Oct 07 j 00:07	29° m 36'10	
opposition	-3112 Oct 25 j 23:25	9° Ƴ 29'40	-1°-15'-39		-3106 Oct 08 j 18:08	0∘ ⊽	
min. Earth dist.	-3112 Oct 24 j 22:17	9° Ƴ 38'14	4.15789 AU	max. Earth dist.	-3106 Oct 17 j 21:36	2° ≏ 05'04	6.25535 AU
direct	-3112 Dec 24 j 00:29	4° Y 28'51					
evening set	-3111 Apr 30 j 00:15	23° Y 12'03		conjunction	-3106 Oct 19 j 13:19	2° ≏ 27'45	
		0 0		minimum elong	-3106 Oct 19 j 13:22	2° £ 27'46	0°58'50
conjunction	-3111 May 13 j 18:31			morning rise	-3106 Nov 01 j 02:04	5° ≏ 19'17	
minimum elong	-3111 May 13 j 18:34		0°31'14	retrograde	-3105 Mar 06 j 03:54		
max. Earth dist.	-3111 May 14 j 23:17		6.21748 AU	opposition	-3105 May 06 j 05:51		1°00'34
morning rise	-3111 May 27 j 12:19			min. Earth dist.	-3105 May 07 j 04:29	18° ≙ 35'29	4.19668 AU
	-3111 May 30 j 07:16	0°8		direct	-3105 Jul 06 j 09:17		
_	-3111 Aug 19 j 08:35				-3105 Oct 29 j 01:27	0°M,	
retrograde	-3111 Sep 29 j 01:49	17° 8 34'39		evening set	-3105 Nov 08 j 06:03	2°M20'56	
	-3111 Nov 08 j 15:25		00 121 47		2105 N	50 M 10144	0010121
opposition	-3111 Nov 27 j 13:57			conjunction	-3105 Nov 20 j 22:22	5°M18'44	0°19'31
min. Earth dist.	-3111 Nov 27 j 03:01		4.27454 AU	minimum elong	-3105 Nov 20 j 22:24	5°M18'45	0°19'28
direct	-3110 Jan 26 j 22:45	7° 8 31'00		max. Earth dist.	-3105 Nov 20 j 01:21	5°M06'26	6.13794 AU
asc. node	-3110 Feb 18 j 21:14	8° 8 20'12		morning rise	-3105 Dec 03 j 15:45	8°M17'22	
. ,	-3110 Apr 11 j 07:49			. 1	-3104 Jan 02 j 10:02		
evening set	-3110 Jun 03 j 11:25	25°O46'37		retrograde	-3104 Apr 10 j 05:36		
agniumation	2110 Jun 17:01:07	200 45144	0012112	desc. node	-3104 May 03 j 12:21	26°M42'49	00 61 45
conjunction	-3110 Jun 17 j 01:07			opposition min. Earth dist.	-3104 Jun 10 j 01:56		0°-6'-45
minimum elong	-3110 Jun 17 j 01:06		U 13 18		-3104 Jun 10 j 08:29		4.08329 AU
behind sun begin behind sun end	-3110 Jun 16 j 20:29			direct	-3104 Aug 08 j 21:05	17° M .43'12 0° ∡'	
	-3110 Jun 17 j 05:42		6 22507 ATT	avaning sat	-3104 Nov 11 j 21:06	0°×' 6°× 7 43'57	
max. Earth dist.	-3110 Jun 17 j 05:59 -3110 Jun 22 j 15:50	28° O 48'25 0° I I	6.32597 AU	evening set	-3104 Dec 11 j 05:27	o x'43'3/	
morning rise	-3110 Jun 30 j 12:10	0 Ⅱ 1°Ⅱ43'27		conjunction	-3104 Dec 24 j 03:32	9° ∡ 748'35	0°-27'-54
retrograde	-3110 Jun 30 j 12:10 -3110 Oct 30 j 04:54			minimum elong	-3104 Dec 24 j 03:32 -3104 Dec 24 j 03:30	9° х ′48′33	0°-27'-54 0°28'01
opposition	-3110 Oct 30 j 04:34 -3110 Dec 29 j 00:22		0°49'19	max. Earth dist.	-3104 Dec 24 j 03:30 -3104 Dec 24 j 08:15	9° × '4834	6.03943 AU
min. Earth dist.	-3110 Dec 29 j 05:16		4.36654 AU	morning rise	-3104 Dec 24 J 08:13 -3103 Jan 06 j 04:23	9 x ·31 23 12° x 54'47	0.0 <i>3743 A</i> U
direct	-3100 Dec 29 j 03:10 -3109 Feb 28 j 14:32	9° Ⅱ 06′26	1.5005T AU	morning risc	-3103 Jan 00 j 04.23 -3103 Apr 02 j 19:34	12 メ ・3447	
evening set	-3109 Jul 06 j 06:57			retrograde	-3103 Apr 02 j 19:34 -3103 May 17 j 12:25	3°る01'22	
J. J 5 500	510, vai 00 j 00.57	_,			5105 may 1/ j 12.25	5 001 22	

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 27 Attention, astronomical year style is used: The year -3103 in astronomical counting style is the year 3104 BCE in historical counting style.

Attention, astronom	nical year style is used: The	he year -3103	in astronomical co	unting style is the year	3104 BCE in historical	counting style	
	-3103 Jul 01 j 13:10	30°₹ ҂ 7			-3097 Jul 04 j 02:02	0ං ව	
min. Earth dist.	-3103 Jul 16 j 09:47	28° ₹ 05'14	4.00990 AU	evening set	-3097 Jul 10 j 17:54	1° 5 26'12	
opposition	-3103 Jul 17 j 00:01		-1°-14'-38				
direct	-3103 Sep 13 j 12:24			conjunction	-3097 Jul 23 j 21:48	4° © 18'21	0°56'52
	-3103 Nov 19 j 21:24			minimum elong	-3097 Jul 23 j 21:45		0°56'58
evening set	-3102 Jan 16 j 01:32	12° る 27'20		max. Earth dist.	-3097 Jul 22 j 22:43	4°905'44	6.39735 AU
		_		morning rise	-3097 Aug 05 j 22:15	7°≌08'50	
conjunction	-3102 Jan 29 j 06:51			retrograde	-3097 Dec 04 j 03:40		
minimum elong	-3102 Jan 29 j 06:48			opposition	-3096 Feb 02 j 09:57		1°41'22
max. Earth dist.	-3102 Jan 30 j 14:57		5.99714 AU	min. Earth dist.	-3096 Feb 03 j 07:58	19°506'46	4.40599 AU
morning rise	-3102 Feb 11 j 15:30			direct	-3096 Apr 04 j 22:09	14°9511'08	
	-3102 Apr 03 j 04:11	0° ≈			-3096 Jul 31 j 23:03	0° Ω	
retrograde	-3102 Jun 23 j 22:10	9°≈12'59		evening set	-3096 Aug 10 j 05:20	2° Ω 00'13	
opposition	-3102 Aug 22 j 21:31	4°≈08'47		max. Earth dist.	-3096 Aug 21 j 08:11	4° 81 26'32	6.39730 AU
min. Earth dist.	-3102 Aug 21 j 18:01	4°≈18'05	4.00475 AU		2006 4 22:00.22	40 0 40145	1010107
I'	-3102 Sep 28 j 15:33			conjunction	-3096 Aug 23 j 00:33		
direct	-3102 Oct 19 j 21:24 -3102 Nov 10 j 02:51	29° ⊘ 13 44		minimum elong	-3096 Aug 23 j 00:32		1°18'10
	-3102 Nov 10 j 02:31 -3101 Feb 06 j 14:23			morning rise	-3096 Sep 04 j 17:00 -3096 Oct 10 j 01:15	7° Ω 35'56	
evening set	-3101 Feb 06 j 14.23 -3101 Feb 22 j 02:05			retrograde	-3095 Jan 03 j 09:17		
evening set	-3101 Feb 22 J 02.03	10 ~33 40		opposition	-3095 Mar 05 j 00:26		1°57'37
conjunction	-3101 Mar 07 j 14:45	2100017100	1° 10' 27	min. Earth dist.	-3095 Mar 06 j 08:02		
minimum elong	-3101 Mar 07 j 14:46		1°19'32	mm. Earth dist.	-3095 Apr 25 j 02:02		4.37393 AU
max. Earth dist.	-3101 Mar 09 j 15:32			direct	-3095 May 06 j 16:49		
morning rise	-3101 Mar 21 j 06:07		0.02000 /10	direct	-3095 May 18 j 06:58	15° Ω	
morning rise	-3101 Apr 12 j 01:43	0° \			-3095 Aug 28 j 18:49	0°m	
retrograde	-3101 Jul 30 j 01:40			evening set	-3095 Sep 10 j 05:10	•	
min. Earth dist.	-3101 Sep 26 j 08:33		4.06906 AU	max. Earth dist.	-3095 Sep 20 j 22:52		6.33872 AU
opposition	-3101 Sep 27 j 15:23	9°) 53′56				* ·¥ ·· = ·	0.000,2110
direct	-3101 Nov 24 j 21:20			conjunction	-3095 Sep 22 j 19:19	5° m 32'20	1°17'32
evening set	-3100 Mar 30 j 01:41			minimum elong	-3095 Sep 22 j 19:21	5° m 32'21	1°17'35
C	J			morning rise	-3095 Oct 05 j 07:30	8° m, 20'11	
conjunction	-3100 Apr 12 j 19:18	27°) 10′30	-1°-2'-58	retrograde	-3094 Feb 04 j 20:22	25° m 55'25	
minimum elong	-3100 Apr 12 j 19:22			opposition	-3094 Apr 06 j 20:05		1°40'40
max. Earth dist.	-3100 Apr 14 j 15:36			min. Earth dist.	-3094 Apr 08 j 02:27		4.29252 AU
	-3100 Apr 25 j 02:34	0° Υ		direct	-3094 Jun 07 j 21:55	16° Mp 05'27	
morning rise	-3100 Apr 26 j 14:18	0° Υ 20′24			-3094 Sep 22 j 04:55	0∘ ⊽	
retrograde	-3100 Sep 01 j 04:14	19° Ƴ 24'16		evening set	-3094 Oct 11 j 12:54	4° ≏ 18'40	
opposition	-3100 Oct 30 j 15:29	14° Y 20'35	-1°-7'-47	max. Earth dist.	-3094 Oct 22 j 13:42	6° £ 50'04	6.23735 AU
min. Earth dist.	-3100 Oct 29 j 16:18	14° Ƴ 28'28	4.17708 AU				
direct	-3100 Dec 28 j 21:18	9° Ƴ 19'19		conjunction	-3094 Oct 24 j 02:20	7° ≏ 11'06	0°54'10
evening set	-3099 May 04 j 22:09	27° Ƴ 57′27		minimum elong	-3094 Oct 24 j 02:23	7° ≏ 11'07	0°54'10
	-3099 May 14 j 01:26	9° 8		morning rise	-3094 Nov 05 j 15:30	10° ჲ 03'36	
				retrograde	-3093 Mar 11 j 06:39	28° ≏ 29'18	
conjunction	-3099 May 18 j 16:13	1° 8 02'07		opposition	-3093 May 11 j 06:59	23° ≏ 35'21	0°51'52
minimum elong	-3099 May 18 j 16:15	1° 8 02'08	0°25'10	min. Earth dist.	-3093 May 12 j 04:11		4.17896 AU
max. Earth dist.	-3099 May 19 j 18:41	1° 8 16'57	6.23607 AU	direct	-3093 Jul 11 j 06:50	18° ≏ 40'04	
morning rise	-3099 Jun 01 j 09:09	4° 8 06'03			-3093 Oct 11 j 10:36	0°M	
				evening set	-3093 Nov 13 j 00:18	7° M 17'59	
retrograde	-3099 Oct 03 j 11:12	_	00.41.26		200231 25:45:5	100 m 1245	0010151
opposition	-3099 Dec 02 j 00:19	17° 8 09'21	0°-4'-36	conjunction	-3093 Nov 25 j 17:15		0°12'51
min. Earth dist.	-3099 Dec 01 j 15:37	17° 8 12'16	4.29081 AU	minimum elong	-3093 Nov 25 j 17:16	10°M16'46	0°12'46
,	-3099 Dec 18 j 15:55	15°R 8		behind sun begin	-3093 Nov 25 j 12:08	10°M13'46	
asc. node	-3099 Dec 29 j 20:26	13° 8 46'17		behind sun end	-3093 Nov 25 j 22:24	10°M19'46	(12221 ATT
direct	-3098 Jan 31 j 13:34			max. Earth dist.	-3093 Nov 24 j 23:27		6.12221 AU
	-3098 Mar 16 j 22:06 -3098 Jun 06 j 17:59	0° Ⅱ		morning rise	-3093 Dec 08 j 11:39 -3093 Dec 15 j 21:47		
evening set	-3098 Jun 08 j 03:18	0° П 18'11			-3092 Mar 04 j 06:41	13 IIL 0° ⊼ 7	
evening set	5070 Jun 00 J 05.10	0 11 10 11		desc. node	-3092 Mar 12 j 03:52	0° х ¹ 52'41	
conjunction	-3098 Jun 21 j 15:48	3° Ⅱ 16'19	0°19'15	retrograde	-3092 Mai 12 j 03:32 -3092 Apr 15 j 11:06	2° × ⁷ 40'32	
minimum elong	-3098 Jun 21 j 15:47	3° I 16'18	0°19'13 0°19'20	renograde	-3092 Apr 13 j 11:06 -3092 May 28 j 01:47	2 x ·40 32 30°RM	
max. Earth dist.	-3098 Jun 21 j 15:02	3° I 15'53	6.33858 AU	opposition	-3092 Jun 15 j 07:32	27°M43'10	0°-17'-7
morning rise	-3098 Jul 05 j 01:51	6° Ⅱ 13′04	3.33030 110	min. Earth dist.	-3092 Jun 15 j 09:53		4.07107 AU
retrograde	-3098 Nov 03 j 12:07			direct	-3092 Aug 13 j 20:39		
opposition	-3097 Jan 02 j 08:20	18° II 35'19	0°57'10		-3092 Oct 22 j 14:31	0°×7	
min. Earth dist.	-3097 Jan 02 j 16:29	18° Ⅱ 32'38	4.37479 AU	evening set	-3092 Dec 16 j 05:51		
direct	-3097 Mar 05 j 02:42			<i>3</i>			
	- .						

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3092 in astronomical counting style is the year 3093 BCE in historical counting style. -3092 Dec 29 i 04:51 14° ₹ 58'45 0°-34'-22 min. Earth dist. -3085 Jan 07 j 03:15 22° **I** 59'30 4.38084 AU conjunction -3092 Dec 29 j 04:49 14° ₹ 58'44 direct -3085 Mar 09 j 14:31 17°**Д**59'18 minimum elong 0°34'29 -3092 Dec 29 j 14:18 15°**₹**04'24 -3085 Jun 17 j 06:25 max. Earth dist. 6.03166 AU 0.00 -3091 Jan 11 j 06:40 18° ₹05'44 -3085 Jul 15 j 05:42 5°952'59 morning rise evening set -3091 Mar 06 j 15:50 -3085 Jul 27 j 04:46 8°**5**29'30 0°궁 max. Earth dist. 6.39888 AU -3091 May 22 j 20:37 retrograde 8°**ප**16'16 -3091 Jul 22 j 06:36 -3085 Jul 28 j 08:13 opposition 3°**る**14'52 -1°-22'-39 conjunction 8°9544'31 1°01'00 -3085 Jul 28 j 08:10 min. Earth dist. -3091 Jul 21 j 14:25 3°る20'15 4.00738 AU minimum elong 8°9544'29 1°01'06 30°Ŗ**⋌**7 -3091 Aug 18 j 01:52 morning rise -3085 Aug 10 j 07:34 11°534'27 direct -3091 Sep 18 j 17:24 28°**₹**'21'34 retrograde -3085 Dec 08 j 13:10 28°532'33 -3091 Oct 20 j 02:53 0°ਰ opposition -3084 Feb 06 j 19:58 23°539'46 1°45'33 -3090 Jan 21 j 06:12 17°**⋜**41'55 -3084 Feb 07 j 20:13 23°531'56 evening set min. Earth dist. 4.40328 AU -3084 Apr 09 j 09:56 18°537'10 direct -3084 Jul 14 j 23:56 conjunction -3090 Feb 03 j 12:35 20°**궁**51'51 -1°-9'-51 $0^{\circ}\Omega$ minimum elong -3090 Feb 03 j 12:32 20°₹51'49 1°09'58 evening set -3084 Aug 14 j 15:01 6°**Ω**27'15 max. Earth dist. -3090 Feb 05 j 00:34 21°る13'21 5.99984 AU max. Earth dist. -3084 Aug 25 j 17:12 8°**Ω**53′27 6.39051 AU morning rise -3090 Feb 16 j 22:11 24°중03'30 -3090 Mar 14 j 15:12 conjunction -3084 Aug 27 j 09:30 9°**Ω**15'40 1°19'24 retrograde -3090 Jun 29 j 03:13 14°≈26'01 minimum elong -3084 Aug 27 j 09:28 9°Ω15'40 1°19'29 min. Earth dist. -3090 Aug 26 j 19:56 9°**≈**31'19 4.01266 AU morning rise $-3084 \text{ Sep } 09 \text{ j } 00.57 \quad 12^{\circ} \Omega 02'46$ opposition -3090 Aug 28 j 00:42 9°**≈**21'34 -1°-57'-19 -3084 Sep 22 j 16:03 15°Ω direct -3090 Oct 24 i 23:55 4°≈26'11 retrograde -3083 Jan 07 j 21:00 29° Ω 10'31 -3089 Jan 19 i 04:30 15°≈ opposition -3083 Mar 09 j 14:17 24°**Ω**19'02 1°57'17 evening set -3089 Feb 27 j 07:36 23°≈45'55 min. Earth dist. -3083 Mar 10 j 21:21 24° Ω 09'08 4.36579 AU direct -3083 May 11 j 04:36 $19^{\circ}\Omega$ 18'37 -3089 Mar 12 j 20:55 26°≈57'03 -1°-18'-51 -3083 Aug 11 j 11:39 conjunction 0° m -3089 Mar 12 j 20:56 26°≈57'04 1°18'55 -3083 Sep 14 j 15:24 evening set 7° m 16'41 minimum elong max. Earth dist. -3089 Mar 14 j 20:37 27°≈25'07 6.04012 AU max. Earth dist. -3083 Sep 25 j 08:57 9° m/40'51 6.32608 AU -3089 Mar 25 j 20:52 0°**ℋ** -3089 Mar 26 j 13:05 0°**₭**09'27 -3083 Sep 27 j 05:02 10° mp 05'37 1°15'33 morning rise conjunction -3089 Aug 03 j 21:57 20°**₭**01'39 -3083 Sep 27 j 05:04 10° m 05'38 minimum elong 1°15'34 retrograde -3089 Oct 01 j 05:59 15°¥06'48 4.08401 AU morning rise -3083 Oct 09 j 17:10 12° m 53'56 min. Earth dist. -3089 Oct 02 j 12:17 14°**)** 56'26 -1°-47'-4 -3082 Jan 21 j 03:55 0∘Ω opposition -3089 Nov 29 j 20:58 9°**米** 57'47 -3082 Feb 09 j 16:09 0°**£**35'17 direct retrograde -3082 Mar 01 j 03:56 30°R Mp -3088 Apr 04 j 03:59 28° ¥ 59'07 evening set -3088 Apr 08 j 14:37 -3082 Apr 11 j 15:27 25° mp 43'12 1°35'31 $0^{\circ}\Upsilon$ opposition -3082 Apr 12 j 21:30 25° m 33'39 4.27819 AU min. Earth dist. conjunction -3088 Apr 17 j 22:06 2°Y08'04 0°-58'-38 direct -3082 Jun 12 j 15:15 20° m 45'31 minimum elong -3088 Apr 17 j 22:10 2°Y08'06 0°58'39 -3082 Sep 04 j 01:47 0°Ω max. Earth dist. -3088 Apr 19 j 17:19 2°**Y**32'51 6.13621 AU evening set -3082 Oct 16 j 01:46 9°**£**01'29 morning rise -3088 May 01 j 16:58 5°**Y**17'13 max. Earth dist. -3082 Oct 27 j 05:32 11°**♀**35'04 6.22278 AU retrograde -3088 Sep 05 j 19:33 24°**Y**12'06 -3088 Nov 03 j 09:09 19°**Υ**16'00 4.19395 AU conjunction -3082 Oct 28 j 15:32 11°**£**54'38 0°49'12 min. Earth dist. -3088 Nov 04 j 06:06 19°**Y**08'54 0°-59'-36 -3082 Oct 28 j 15:35 11°**2**54'39 opposition minimum elong -3087 Jan 02 j 16:31 14°**Υ**07'20 -3082 Nov 10 j 05:09 14°**♀**47'57 direct morning rise -3081 Jan 27 j 14:51 -3087 Apr 27 i 13:45 0°8 0°M -3081 Mar 16 i 05:51 evening set -3087 May 09 j 19:14 2°**8**41'27 retrograde 3°M20'50 -3081 May 03 j 22:07 30°R Ω conjunction -3087 May 23 i 12:45 5°**8**45'16 0°-19'-3 opposition -3081 May 16 j 07:14 28° \(\Omega\) 26'27 0°42'54 -3087 May 23 i 12:46 5°**8**45'17 0°19'00 min. Earth dist. -3081 May 17 j 01:07 28° \(\Omega\) 20'43 4.16528 AU minimum elong -3087 May 24 j 10:31 5°**8**57'25 6.25169 AU direct -3081 Jul 16 i 01:41 23° **2**31'32 max. Earth dist. -3087 Jun 06 j 05:08 8°**8**48'16 -3081 Sep 21 j 03:05 morning rise o∘m. -3087 Jul 05 j 00:37 15°8 -3081 Nov 17 j 17:40 12°M12'01 evening set -3087 Oct 07 j 20:13 26°844'26 -3081 Nov 29 j 15:36 15°M retrograde asc. node -3087 Nov 08 j 18:54 25°**8**06'23 opposition -3087 Dec 06 j 10:36 21°844'52 0°04'34 conjunction -3081 Nov 30 j 11:15 15°ML11'34 0°06'13 -3087 Dec 06 j 04:15 21°**8**46'59 -3081 Nov 30 j 11:15 15°**M**-11'34 min. Earth dist. 4.30401 AU minimum elong 0°06'09 -3086 Feb 05 j 04:13 16°**8**41'31 behind sun begin -3081 Nov 30 j 03:37 15°M 07'06 direct -3081 Nov 30 j 18:53 15°ML16'03 -3086 May 21 j 01:46 $\Pi^{\circ}0$ behind sun end -3086 Jun 12 j 18:52 4°**Ⅲ**50′50 -3081 Nov 29 j 21:20 15°ML03'23 6.11065 AU evening set max. Earth dist. -3081 Dec 13 j 06:30 18°ML12'12 morning rise conjunction -3086 Jun 26 j 06:25 7°**Ⅱ**48'08 0°25'12 desc. node -3080 Jan 20 j 23:19 26°M 50'18 minimum elong -3086 Jun 26 j 06:23 7°**Ⅱ**48'07 0°25'18 -3080 Feb 06 j 01:52 0°**∡**¹ max. Earth dist. -3086 Jun 26 j 02:54 7°**Ⅱ**46'12 6.34846 AU retrograde -3080 Apr 20 j 16:00 7°**х** 42′30 morning rise -3086 Jul 09 j 15:04 10°**Ⅲ**43'56 opposition -3080 Jun 20 j 11:11 2°**х¹**44'31 0°-27'-8 -3086 Nov 07 j 19:40 27°**Д**58'32 min. Earth dist. -3080 Jun 20 j 11:21 2°**х** 44'27 4.06252 AU retrograde

-3080 Jul 12 j 19:31 30°RM

-3085 Jan 06 j 16:58 23°**Ⅱ**02'53 1°04'44

opposition

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 29

Attention, astronomical year style is used: The year -3080 in astronomical counting style is the year 3081 BCE in historical counting style. direct -3080 Aug 18 j 21:27 27° M 51'18 evening set -3074 Jun 17 j 10:04 9°**Ⅱ**22'15 -3080 Sep 24 j 10:11 0° ⊀ -3080 Dec 21 j 03:59 16° ₹ 56'22 conjunction -3074 Jun 30 j 20:31 12°**Д**18'49 0°30'57 evening set minimum elong -3074 Jun 30 j 20:28 12°**Д**18'48 0°31'03 -3074 Jun 30 j 13:09 12°**Ⅲ**14'47 -3079 Jan 03 j 03:57 20° ₹ 02'20 0°-40'-25 conjunction max. Earth dist. 6.35589 AU -3079 Jan 03 j 03:54 20° **₹** 02'19 -3074 Jul 14 j 04:03 15°**Ⅲ**13'51 minimum elong 0°40'32 morning rise max. Earth dist. -3079 Jan 03 j 17:50 20° **尽** 10'38 -3074 Oct 03 j 10:25 6.02686 AU 0ಂತಾ 2°525'30 -3079 Jan 16 j 06:45 23°**尽** 09'57 -3074 Nov 12 j 03:29 morning rise retrograde -3079 Feb 15 j 00:29 0°**ਨ** -3074 Dec 22 j 00:58 30°RⅡ 1°11'53 retrograde -3079 May 28 j 01:24 13°る23'02 opposition -3073 Jan 11 j 02:00 27°**Ⅱ**30'19 opposition -3079 Jul 27 j 09:50 8°**る**21'09 -1°-29'-46 min. Earth dist. -3073 Jan 11 j 13:54 27°**Ⅱ**26'26 4.38530 AU -3079 Jul 26 j 15:28 -3073 Mar 14 j 01:41 22°**Ⅲ**26'49 min. Earth dist. 8°る27'16 4.00712 AU direct direct -3079 Sep 23 j 17:54 3°**る**27'41 -3073 May 29 j 05:55 0ಂಣ evening set -3078 Jan 26 j 08:11 22°**♂**47'53 evening set -3073 Jul 19 j 17:08 10°9519'56 conjunction -3078 Feb 08 j 15:21 25°₹58'00 -1°-12'-52 conjunction -3073 Aug 01 j 18:30 13°510'56 1°04'47 minimum elong -3078 Feb 08 j 15:18 25°る57'59 1°12'57 minimum elong -3073 Aug 01 j 18:27 13°510'54 1°04'52 max. Earth dist. -3078 Feb 10 j 04:13 26°**る**20'00 6.00373 AU max. Earth dist. -3073 Jul 31 j 14:10 12°555'25 6.40003 AU morning rise -3078 Feb 22 j 02:00 29°る09'52 morning rise -3073 Aug 14 j 16:31 16°500'18 -3078 Feb 25 j 14:59 0°**≈** -3073 Oct 29 j 09:53 $0^{\circ}\Omega$ -3078 May 10 j 06:55 15°≈ retrograde -3073 Dec 12 j 22:12 2°**£**58'33 retrograde -3078 Jul 04 i 02:39 19°≈29'47 -3072 Jan 27 i 02:10 30° R 55 -3078 Aug 28 i 16:54 15°R≈ opposition -3072 Feb 11 i 06:30 28°\$06'05 1°49'04 opposition -3078 Sep 01 j 23:57 14°≈25'04 -1°-58'-34 min. Earth dist. -3072 Feb 12 i 07:42 27°557'59 4.40115 AU min. Earth dist. -3078 Aug 31 j 18:22 14°≈35'07 4.02039 AU direct -3072 Apr 13 j 21:18 23°503'48 -3078 Oct 29 j 23:24 9°**≈**29'14 -3072 Jun 25 j 14:11 direct $0^{\circ}\Omega$ -3078 Dec 28 j 15:49 15°≈ -3072 Aug 19 j 00:24 $10^{\circ} \Omega 54'16$ evening set -3077 Mar 04 j 09:54 28°≈47'03 max. Earth dist. -3072 Aug 29 j 23:29 13°**Ω**19'06 6.38499 AU evening set -3077 Mar 09 j 14:45 0°¥ -3072 Aug 31 j 17:49 $13^{\circ}\Omega$ 42'30 $1^{\circ}20'14$ conjunction -3072 Aug 31 j 17:48 13° Ω 42'30 1° 20'18 -3077 Mar 18 j 00:14 1°**¥**58'06 -1°-17'-40 conjunction minimum elong -3077 Mar 18 j 00:16 minimum elong 1°**)** 58'08 1°17'44 -3072 Sep 06 j 14:06 15°**Ω** -3077 Mar 20 j 00:49 2°**升**26'36 6.05107 AU -3072 Sep 13 j 08:40 16°**\O**29'32 max. Earth dist. morning rise -3077 Mar 31 j 16:52 5°**米** 10'14 -3072 Nov 23 j 10:34 0° M morning rise -3077 Aug 08 j 17:49 24° **€** 55'48 -3071 Jan 12 j 10:16 3° Mp 40'23 retrograde retrograde -3077 Oct 06 j 01:35 20° ₩ 00'35 4.09688 AU -3071 Mar 04 j 18:18 30°R**Ω** min. Earth dist. -3077 Oct 07 j 06:14 19° **★** 50'48 -1°-42'-21 -3071 Mar 14 j 04:06 $28^{\circ}\Omega 48'53$ $1^{\circ}56'13$ opposition opposition direct -3077 Dec 04 j 17:44 14° **€** 51'45 min. Earth dist. -3071 Mar 15 j 11:47 28°**Ω**38'48 4.35711 AU -3076 Mar 23 j 01:17 $0^{\circ}\Upsilon$ direct -3071 May 15 j 17:37 23°**Ω**48'46 evening set -3076 Apr 09 j 03:43 3°Y50'06 -3071 Jul 22 j 09:40 0° M evening set -3071 Sep 19 j 00:34 11° Mp 48'21 -3076 Apr 22 j 22:03 6°Υ58'35 0°-54'-1 max. Earth dist. -3071 Sep 29 j 19:48 14° m 13'49 6.31483 AU conjunction -3076 Apr 22 j 22:07 6°Y58'38 0°54'01 minimum elong -3076 Apr 24 j 14:08 7°**Y**21'29 6.14999 AU -3071 Oct 01 j 14:05 14° My 37'38 1°13'06 max. Earth dist. conjunction -3076 May 06 j 17:06 10°**Υ**07'10 -3071 Oct 01 j 14:07 14° m 37'40 morning rise minimum elong $-3076 \text{ Sep } 10 \text{ j } 07:41 \quad 28^{\circ} \Upsilon 54'32$ -3071 Oct 14 i 01:58 17° m 26'21 retrograde morning rise -3076 Nov 08 i 18:57 23°**Υ**'51'48 0°-51'-14 opposition -3071 Dec 15 j 21:22 -3076 Nov 07 j 23:16 23°**Y**58'29 min. Earth dist. 4.20736 AU retrograde -3070 Feb 14 i 09:03 5°**₽**13'25 -3075 Jan 07 i 08:39 18°**Υ**49'56 direct opposition -3070 Apr 16 j 09:43 0° **2**21'05 1°29'45 -3075 Apr 10 i 03:23 0°8 min. Earth dist. -3070 Apr 17 i 14:10 0°**2**12'02 4.26483 AU -3075 May 14 j 14:47 7°**8**21'24 -3070 Apr 19 j 04:03 30°R Mp evening set direct -3070 Jun 17 j 05:30 25° m 23'49 -3075 May 28 j 07:52 10°\begin{align*} 224'32 0°-12'-52 \end{align*} -3070 Aug 12 j 22:48 conjunction 0∘⊽ -3075 May 28 j 07:53 10°**8**24'32 minimum elong 0°12'50 evening set -3070 Oct 20 j 13:29 13° £42'20 behind sun begin -3075 May 28 j 02:53 10°**8**21'46 max. Earth dist. -3070 Oct 31 j 18:52 16°**Ω**17'22 6.20832 AU behind sun end -3075 May 28 j 12:52 10°**8**27'18 max. Earth dist. -3075 May 29 j 02:14 10°**8**34'46 6.26401 AU conjunction -3070 Nov 02 j 03:26 16°**△**36'11 0°43'56 -3075 Jun 10 j 23:26 13°**8**26'42 -3070 Nov 02 j 03:28 16°**♀**36'13 0°43'54 morning rise minimum elong -3075 Jun 18 j 01:00 15°**႘** -3070 Nov 14 j 17:43 19°**♀**30'23 morning rise -3075 Sep 13 j 21:21 -3069 Jan 02 j 20:49 $0^{\circ}\Pi$ 0°M -3075 Sep 19 j 06:47 -3069 Mar 21 j 06:07 asc. node 0°**Ⅲ**25'59 retrograde 8°M10'51 retrograde -3075 Oct 12 j 06:40 1°**Ⅱ**17′00 opposition -3069 May 21 j 06:41 3°**M**15′58 0°33'40 -3075 Nov 09 j 10:37 30°R**8** min. Earth dist. -3069 May 21 j 22:57 3°**M**₁10'45 4.15042 AU opposition -3075 Dec 10 j 20:23 26°8 18'04 0°13'35 -3069 Jun 18 j 03:24 30°R **≏** min. Earth dist. -3075 Dec 10 j 16:46 26°**8**19'16 4.31427 AU direct -3069 Jul 20 j 21:18 28°**₽**21'19 -3074 Feb 09 j 18:27 21°**8**14'41 -3069 Aug 22 j 07:13 direct 0°M -3074 May 02 j 16:37 0°**П** -3069 Nov 13 j 11:18 15°M

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3069 in astronomical counting style is the year 3070 BCE in historical counting style. conjunction -3069 Nov 22 j 10:14 17° ML05'05 -3063 Jun 02 j 05:28 15°**8**09'54 evening set -3069 Nov 30 j 20:07 19°ML03'50 minimum elong -3063 Jun 02 j 05:28 15°**8**09'54 desc. node 0°06'27 -3063 Jun 01 j 21:41 15°**8**05'35 behind sun begin -3069 Dec 05 j 04:42 20°ML05'35 0°00'-32 -3063 Jun 02 j 13:16 15°**8**14'12 behind sun end conjunction -3063 Jun 02 j 21:41 15°**8**18'54 -3069 Dec 05 j 04:41 20°M 05'34 minimum elong 0°00'37 max. Earth dist. 6.27962 AU -3069 Dec 04 j 20:38 20°ML00'51 behind sun begin morning rise -3063 Jun 15 j 20:06 18°**8**11'02 behind sun end -3069 Dec 05 j 12:44 20°M10'18 asc. node -3063 Jul 29 j 11:11 27°**8**15'50 max. Earth dist. -3069 Dec 04 j 18:38 19°ML59'40 6.09686 AU -3063 Aug 13 j 20:06 $0^{\circ}\Pi$ morning rise -3069 Dec 18 j 00:50 23°ML07'13 retrograde -3063 Oct 16 j 16:12 5°**Ⅲ**54'03 -3068 Jan 17 j 08:06 0°**∡**¹ opposition -3063 Dec 15 j 08:04 0°**Ⅲ**55'38 0°22'38 retrograde -3068 Apr 25 j 20:00 12°**х** 44'42 min. Earth dist. -3063 Dec 15 j 05:20 0°**I**56'32 4.32921 AU -3068 Jun 25 j 14:14 -3063 Dec 22 j 08:22 opposition 7°**∡**'46'12 0°-36'-59 30°₹**႘** -3062 Feb 14 j 09:19 25°**8**52'10 min. Earth dist. -3068 Jun 25 j 11:51 7°**∡¹**46'58 4.05115 AU direct direct -3068 Aug 23 j 20:02 2°×753'04 -3062 Apr 09 j 10:51 $\mathbb{I}^{\circ 0}$ evening set -3068 Dec 26 j 03:05 22° ₹ 01'11 evening set -3062 Jun 22 j 02:07 13°**耳**56'00 conjunction -3067 Jan 08 j 03:53 25°**又**07'54 0°-46'-11 conjunction -3062 Jul 05 j 11:12 16°**Ⅲ**51'28 0°36'32 minimum elong -3067 Jan 08 j 03:50 25°**尽** 07'52 0°46'19 minimum elong -3062 Jul 05 j 11:09 16°**Ⅲ**51'27 0°36'38 max. Earth dist. -3067 Jan 08 j 19:56 25° **₹** 17'29 6.01872 AU max. Earth dist. -3062 Jul 05 j 01:10 16°**Ⅲ**45'59 6.36920 AU morning rise -3067 Jan 21 j 07:54 28° ₹ 16'21 morning rise -3062 Jul 18 j 17:20 19°**II**45'23 -3067 Jan 28 j 15:30 0°る -3062 Sep 07 j 14:19 0ಂಣ retrograde -3067 Jun 02 j 06:29 18°る33'18 retrograde -3062 Nov 16 i 11:56 6°952'05 opposition -3067 Aug 01 i 13:40 13°₹30′52 -1°-36′-19 opposition -3061 Jan 15 i 11:20 1°957'22 1°18'33 min. Earth dist. -3067 Jul 31 i 17:02 13°る37'47 4.00320 AU min. Earth dist. -3061 Jan 16 i 01:36 1°552'43 4.39617 AU direct -3067 Sep 28 j 19:13 8°**る**37'07 -3061 Jan 30 j 21:08 30°RⅡ evening set -3066 Jan 31 j 12:04 27°る58'46 -3061 Mar 18 j 15:18 26° **I** 53'59 direct -3066 Feb 09 j 00:05 -3061 May 04 j 12:16 0°≈≈ 000 -3061 Jul 24 j 03:30 14°5544'03 evening set -3066 Feb 13 j 20:29 1°≈09'22 -1°-15'-22 -3061 Aug 04 j 20:28 17°5517'12 max. Earth dist. 6 40740 AU conjunction -3066 Feb 13 j 20:27 minimum elong 1°≈09'21 1°15'28 -3066 Feb 15 j 13:02 -3061 Aug 06 j 03:31 17°534'11 1°08'06 max. Earth dist. 1°**≈**33'32 6.00431 AU conjunction -3066 Feb 27 j 08:01 minimum elong -3061 Aug 06 j 03:28 17°534'09 4°≈21'36 1°08'12 morning rise -3061 Aug 19 j 00:17 20°522'44 -3066 Apr 16 j 07:33 15°≈ morning rise -3066 Jul 09 j 06:43 24°≈39'54 -3061 Oct 05 j 12:07 $0^{\circ}\Omega$ retrograde -3066 Sep 05 j 20:07 19°≈44'57 4.02545 AU -3061 Dec 17 j 04:34 min. Earth dist. retrograde 7°**Ω**19'10 -3066 Sep 07 j 01:29 19°≈34'58 -1°-58'-58 -3060 Feb 15 j 15:11 opposition opposition 2°**Ω**26'53 1°51'50 -3066 Oct 20 j 17:20 15°R≈ min. Earth dist. -3060 Feb 16 j 17:28 $2^{\circ}\Omega$ 18'26 4.40473 AU direct -3066 Nov 04 j 01:34 14°≈38'43 -3060 Mar 06 j 13:52 30°Rூ -3066 Nov 18 j 10:23 15°≈ direct -3060 Apr 18 j 06:58 27°524'46 -3065 Feb 20 j 13:07 0°**)**€ -3060 May 31 j 00:49 0°**Ω** -3065 Mar 09 j 15:25 3°\ 55'33 -3060 Aug 22 j 05:38 15°**Ω** evening set -3060 Aug 23 j 06:47 15°**Ω**13'46 evening set -3065 Mar 23 j 06:30 7°**)**€06'34 -1°-15'-53 max. Earth dist. -3060 Sep 03 j 05:15 17° **Ω**38'20 conjunction 6.38437 AU -3065 Mar 23 j 06:33 7°**升**06'35 1°15'55 minimum elong -3065 Mar 25 j 06:34 7°**)** ₹34'39 -3060 Sep 04 j 23:23 18° **Ω**01'38 1°20'33 max. Earth dist. 6.05999 AU conjunction -3060 Sep 04 j 23:23 18° Ω 01'38 morning rise -3065 Apr 05 j 23:57 10° ★ 18'35 minimum elong 1°20'37 retrograde -3065 Aug 13 j 14:22 29° **)** 57'48 morning rise $-3060 \text{ Sep } 17 \text{ j } 13:19 \quad 20^{\circ} \Omega 48'21$ min. Earth dist. -3065 Oct 10 j 21:59 25° ¥ 02'49 4.10884 AU -3060 Nov 01 i 02:41 0°m opposition -3065 Oct 12 j 02:49 24° ¥ 52'58 -1°-36'-46 retrograde -3059 Jan 16 i 18:51 8° m 00'55 direct -3065 Dec 09 j 16:28 19° **)** 53'30 -3059 Mar 18 i 14:32 3° m 09'27 1°54'26 opposition -3064 Mar 04 j 11:47 $0^{\circ}\Upsilon$ min. Earth dist. -3059 Mar 19 j 22:52 2° m 59'10 4.35215 AU -3064 Apr 14 j 07:00 8°**Y**49'06 -3059 Apr 14 j 12:37 30°R € evening set direct -3059 May 20 j 03:17 28°**Ω**09'40 -3059 Jun 24 j 15:31 conjunction -3064 Apr 28 j 01:34 11°**Υ**'57'05 0°-48'-52 0° mb minimum elong -3064 Apr 28 j 01:37 11°**Υ**57'07 0°48'51 evening set -3059 Sep 23 j 05:54 16° m 09'41 max. Earth dist. -3064 Apr 29 j 15:20 12°**Υ**18'36 6.16432 AU max. Earth dist. -3059 Oct 03 j 23:14 18° m/34'30 6.30575 AU -3064 May 11 j 20:28 15°**Υ**04'58 morning rise -3064 Jul 27 j 11:01 0° 8 -3059 Oct 05 j 19:00 18° m 59'13 1°10'18 conjunction -3064 Sep 15 j 00:35 3°**8**44'16 -3059 Oct 05 j 19:03 18° m 59'14 retrograde minimum elong 1°10'20 -3064 Nov 03 j 17:32 30°R**Y** -3059 Oct 18 j 07:02 21° mp 48'19 morning rise -3064 Nov 13 j 10:42 28°**Υ**42'01 0°-42'-18 opposition -3059 Nov 25 j 14:54 0∘**⊽** min. Earth dist. $-3064 \text{ Nov } 12 \text{ j } 17:24 \quad 28^{\circ}\Upsilon47'52$ 4.22273 AU retrograde -3058 Feb 18 j 23:10 9°**£**40'45 direct -3063 Jan 12 j 05:34 23°**Y**39'53 opposition -3058 Apr 21 j 00:01 4°**£**48′10 1°23'39 -3063 Mar 20 j 06:35 0°8 min. Earth dist. -3058 Apr 22 j 04:11 4°**2**39'11 4.25191 AU evening set -3063 May 19 j 12:59 12°**8**07'41 -3058 Jun 12 j 00:11 30°R, Mp -3063 Jun 01 j 11:39 15°8 direct -3058 Jun 21 j 16:53 29° m 51'11

-3058 Jul 01 j 10:04

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 31

Attention astronomi	ical year style is used: Th	10 Voor 3058	in actronomical cor	inting ctula ic the year	3050 BCE in historical of	ounting etyle	
evening set	-3058 Oct 24 j 21:18	-	in astronomicai cot	max. Earth dist.	-3052 May 04 j 18:19		
max. Earth dist.	-3058 Nov 05 j 05:29		6 10292 ATT		-3052 May 04 j 18:19		0.17990 AU
max. Earth dist.	-3038 NOV 03 J 03.29	20 ==49 39	0.19282 AU	morning rise	, ,	0° 8	
	2050 N 06 : 11.40	210 0 07112	0020125		-3052 Jul 03 j 02:06	8° 8 34'04	
conjunction	-3058 Nov 06 j 11:49			retrograde min. Earth dist.	-3052 Sep 19 j 14:50		4.22042 ATT
minimum elong	-3058 Nov 06 j 11:51		0-38-32		-3052 Nov 17 j 09:35	3° 8 37'51	4.23943 AU
morning rise	-3058 Nov 19 j 02:34	24° Ω 02'20		opposition	-3052 Nov 18 j 02:12	_	0°-33'-4
	-3058 Dec 15 j 17:14	0°M		direct	-3052 Dec 17 j 07:43		
retrograde	-3057 Mar 26 j 02:06	12°M50'54	0924121	direct	-3051 Jan 17 j 00:18		
opposition min. Earth dist.	-3057 May 26 j 01:59		0°24'31		-3051 Feb 17 j 04:19	0°8 15°∪	
	-3057 May 26 j 16:56 -3057 Jul 25 j 11:59	7°M50'52 3°M01'20	4.13339 AU	evening set	-3051 May 15 j 19:25		
direct	3	11°M49'46		evening set	-3051 May 24 j 10:42	10 03321	
desc. node	-3057 Oct 12 j 14:30	15°M		conjunction	2051 Jun 07:02:16	100 🖵 5 412 1	0°00'01
	-3057 Oct 27 j 22:41			3	-3051 Jun 07 j 02:16		0°00'06
evening set	-3057 Nov 27 j 00:14	21°M49'48		minimum elong behind sun begin	-3051 Jun 07 j 02:14 -3051 Jun 06 j 18:13		0 00 00
agniumation	2057 Day 00 : 10:22	240M 51122	0°-7'-1	behind sun begin	-3051 Jun 07 j 10:15		
conjunction	-3057 Dec 09 j 19:22		0°07'06	asc. node	-3051 Jun 07 j 00:04		
minimum elong behind sun begin	-3057 Dec 09 j 19:22		0 07 00		-		(20590 AII
behind sun begin	-3057 Dec 09 j 11:54			max. Earth dist.	-3051 Jun 07 j 13:58 -3051 Jun 20 j 15:56		6.29580 AU
max. Earth dist.	-3057 Dec 10 j 02:49		(07000 AII	morning rise	,		
	-3057 Dec 09 j 10:30	24°M46'09 27°M54'16	6.07980 AU	ratra ara da	-3051 Jul 24 j 04:18 -3051 Oct 21 j 03:28	0° П 10° П 30'22	
morning rise	-3057 Dec 22 j 16:44	0°×7		retrograde		10 П 3022 5° П 32'28	0°31'34
	-3057 Dec 31 j 15:48			opposition	-3051 Dec 19 j 19:27	5° П 32′28	
retrograde	-3056 Apr 30 j 21:59	17° х 40′32 12° х 41′31	00 461 10	min. Earth dist.	-3051 Dec 19 j 19:57	0° П 28'52	4.34325 AU
opposition min. Earth dist.	-3056 Jun 30 j 14:32	12° x '41'31 12° x '43'08	0°-46'-18	direct	-3050 Feb 19 j 02:08		
	-3056 Jun 30 j 09:37		4.03563 AU	evening set	-3050 Jun 26 j 17:33	16 Щ2923	
direct	-3056 Aug 28 j 15:44	7°× 7 48'25		agniumation	2050 Iul. 10 : 01:29	210 ∏ 22155	0041150
evening set	-3056 Dec 31 j 00:41	27° メ 01'38 0°る		conjunction	-3050 Jul 10 j 01:28		0°41'58 0°42'03
	-3055 Jan 12 j 11:02	0.0		minimum elong	-3050 Jul 10 j 01:26		
	-3055 Jan 13 j 02:47	00=00126	00 511 20	max. Earth dist.	-3050 Jul 09 j 12:47		6.37977 AU
conjunction minimum elong		0°る09'26 0°る09'24	0°-51'-29 0°51'35	morning rise	-3050 Jul 23 j 06:08 -3050 Aug 19 j 08:22	24°Щ1648	
max. Earth dist.	-3055 Jan 13 j 02:44	0°る0924 0°る21'52	6.00630 AU	ratro ara da	• •		
	-3055 Jan 13 j 23:32	0 321 32 3° る 18'57	6.00030 AU	retrograde	-3050 Nov 20 j 18:45	6°525'29	1°24'53
morning rise	-3055 Jan 26 j 07:51			opposition	-3049 Jan 19 j 20:55		
retrograde	-3055 Jun 07 j 13:13	23° る 41'29	10 411 50	min. Earth dist.	-3049 Jan 20 j 12:27	6°520'26	4.40270 AU
opposition min. Earth dist.	-3055 Aug 06 j 16:35 -3055 Aug 05 j 18:54	18°る38'39 18°る45'56	-1°-41'-59	direct	-3049 Mar 23 j 02:31	1° © 22'11 19° © 10'48	
direct	-3055 Oct 03 j 19:35	18 3 43 36	3.99543 AU	evening set max. Earth dist.	-3049 Jul 28 j 14:20 -3049 Aug 09 j 03:38		6.40920 AU
direct	-3054 Jan 23 j 05:19	13 O 44 43		max. Earm dist.	-3049 Aug 09 J 03.36	21 3942 02	0.40920 AU
evening set	-3054 Feb 05 j 16:29	0 ∞ 3°≈09'31		conjunction	-3049 Aug 10 j 13:04	22° © 00'20	1°11'09
evening set	-30341'60 03 j 10.29	3 ~0931		minimum elong	-3049 Aug 10 j 13:04 -3049 Aug 10 j 13:01	22°500'20	1°11'15
conjunction	-3054 Feb 19 j 01:56	6° ≈ 20'44	-1°-17'-11	minimum clong			
minimum elong	-30341 CO 17 J 01.30	U ~~2U TT		morning rise			1 11 13
max. Earth dist.	3054 Feb 10 i 01:55	6°~~20'44		morning rise	-3049 Aug 23 j 08:40	24°5548'20	1 11 13
max. Larm dist.	-3054 Feb 19 j 01:55	6°≈20'44 6°≈45'56	1°17'17	_	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23	24°548′20 0° Ω	1 1113
morning rise	-3054 Feb 20 j 20:15	6° ≈ 45'56		retrograde	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45	24°€48'20 0°Ω 11°Ω45'05	
morning rise	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44	6°≈45'56 9°≈33'35	1°17'17	retrograde opposition	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12	24°\$48'20 0°\$A 11°\$\Omega45'05 6°\$\Omega53'02	1°54'09
-	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03	6°≈45'56 9°≈33'35 15°≈	1°17'17	retrograde opposition min. Earth dist.	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38	24°\$48'20 0°\$ 11°\$\Omega45'05 6°\$\Omega53'02 6°\$\Omega43'56	
retrograde	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02	1°17'17 6.00175 AU	retrograde opposition	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31	24°\$48'20 0°\$\Omega\$ 11°\$\Omega\$45'05 6°\$\Omega\$53'02 6°\$\Omega\$43'56 1°\$\Omega\$51'11	1°54'09
retrograde min. Earth dist.	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34	1°17'17 6.00175 AU 4.02859 AU	retrograde opposition min. Earth dist. direct	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31 -3048 Aug 05 j 20:26	24°\$48'20 0°\$Ω 11°\$\Omega45'05 6°\$\Omega53'02 6°\$\Omega43'56 1°\$\Omega51'11 15°\$\Omega\$	1°54'09
retrograde min. Earth dist. opposition	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57	1°17'17 6.00175 AU	retrograde opposition min. Earth dist. direct evening set	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31 -3048 Aug 05 j 20:26 -3048 Aug 27 j 15:34	24°548'20 0°N 11°N45'05 6°N53'02 6°N43'56 1°N51'11 15°N 19°N40'44	1°54'09 4.40174 AU
retrograde min. Earth dist.	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17	1°17'17 6.00175 AU 4.02859 AU	retrograde opposition min. Earth dist. direct	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31 -3048 Aug 05 j 20:26	24°548'20 0°N 11°N45'05 6°N53'02 6°N43'56 1°N51'11 15°N 19°N40'44	1°54'09
retrograde min. Earth dist. opposition direct	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0°⊁	1°17'17 6.00175 AU 4.02859 AU	retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31 -3048 Aug 05 j 20:26 -3048 Aug 27 j 15:34 -3048 Sep 07 j 11:02	24°S48'20 0°Ω 11°Ω45'05 6°Ω53'02 6°Ω43'56 1°Ω51'11 15°Ω 19°Ω40'44 22°Ω04'02	1°54'09 4.40174 AU 6.37658 AU
retrograde min. Earth dist. opposition	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17	1°17'17 6.00175 AU 4.02859 AU	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31 -3048 Aug 05 j 20:26 -3048 Aug 27 j 15:34 -3048 Sep 07 j 11:02	24°\$48'20 0°\$Ω 11°\$\Omega45'05 6°\$\Omega53'02 6°\$\Omega43'56 1°\$\Omega51'11 15°\$Ω 19°\$\Omega40'44 22°\$\Omega04'02 22°\$\Omega28'36	1°54'09 4.40174 AU 6.37658 AU 1°20'30
retrograde min. Earth dist. opposition direct	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54 -3053 Mar 14 j 21:58	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0°₩ 9°₩05'52	1°17'17 6.00175 AU 4.02859 AU -1°-58'-21	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31 -3048 Aug 05 j 20:26 -3048 Aug 27 j 15:34 -3048 Sep 07 j 11:02 -3048 Sep 09 j 07:23 -3048 Sep 09 j 07:23	24°\$48'20 0°\$\Omega\$11°\$\Omega\$45'05 6°\$\Omega\$53'02 6°\$\Omega\$43'56 1°\$\Omega\$51'11 15°\$\Omega\$119°\$\Omega\$40'44 22°\$\Omega\$04'02 22°\$\Omega\$28'36 22°\$\Omega\$28'36	1°54'09 4.40174 AU 6.37658 AU
retrograde min. Earth dist. opposition direct evening set conjunction	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54 -3053 Mar 14 j 21:58	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0° ₩ 9° ₩05'52	1°17'17 6.00175 AU 4.02859 AU -1°-58'-21	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31 -3048 Aug 05 j 20:26 -3048 Aug 27 j 15:34 -3048 Sep 07 j 11:02 -3048 Sep 09 j 07:23 -3048 Sep 09 j 07:24 -3048 Sep 21 j 20:50	24°S48'20 0°N 11°N45'05 6°N53'02 6°N43'56 1°N51'11 15°N 19°N40'44 22°N04'02 22°N28'36 22°N28'36 25°N15'24	1°54'09 4.40174 AU 6.37658 AU 1°20'30
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54 -3053 Mar 14 j 21:58 -3053 Mar 28 j 13:56 -3053 Mar 28 j 13:59	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0°¥ 9°¥05'52 12°¥16'54 12°¥16'56	1°17'17 6.00175 AU 4.02859 AU -1°-58'-21 -1°-13'-25 1°13'28	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31 -3048 Aug 05 j 20:26 -3048 Aug 27 j 15:34 -3048 Sep 07 j 11:02 -3048 Sep 09 j 07:23 -3048 Sep 09 j 07:24 -3048 Sep 21 j 20:50 -3048 Oct 13 j 20:34	24°S48'20 0°N 11°N45'05 6°N53'02 6°N43'56 1°N51'11 15°N 19°N40'44 22°N04'02 22°N28'36 22°N28'36 25°N15'24 0°M	1°54'09 4.40174 AU 6.37658 AU 1°20'30
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist.	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54 -3053 Mar 14 j 21:58 -3053 Mar 28 j 13:56 -3053 Mar 28 j 13:59 -3053 Mar 30 j 14:10	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0° ₩ 9° ₩05'52 12° ₩16'54 12° ₩16'56 12° ₩45'02	1°17'17 6.00175 AU 4.02859 AU -1°-58'-21	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31 -3048 Aug 05 j 20:26 -3048 Aug 27 j 15:34 -3048 Sep 07 j 11:02 -3048 Sep 09 j 07:23 -3048 Sep 09 j 07:24 -3048 Sep 21 j 20:50 -3048 Oct 13 j 20:34 -3047 Jan 21 j 08:30	24°\$48'20 0°\$\Omega\$ 11°\$\Omega\$45'05 6°\$\Omega\$53'02 6°\$\Omega\$43'56 1°\$\Omega\$51'11 15°\$\Omega\$111 15°\$\Omega\$19°\$\Omega\$40'44 22°\$\Omega\$04'02 22°\$\Omega\$28'36 22°\$\Omega\$28'36 25°\$\Omega\$15'24 0°\$\Omega\$12'\$\Omega\$21'12	1°54'09 4.40174 AU 6.37658 AU 1°20'30 1°20'32
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54 -3053 Mar 14 j 21:58 -3053 Mar 28 j 13:56 -3053 Mar 28 j 13:59 -3053 Mar 30 j 14:10 -3053 Apr 11 j 07:58	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0° ₩ 9° ₩05'52 12° ₩16'54 12° ₩16'56 12° ₩45'02 15° ₩28'47	1°17'17 6.00175 AU 4.02859 AU -1°-58'-21 -1°-13'-25 1°13'28	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31 -3048 Aug 05 j 20:26 -3048 Aug 27 j 15:34 -3048 Sep 07 j 11:02 -3048 Sep 09 j 07:24 -3048 Sep 09 j 07:24 -3048 Sep 21 j 20:50 -3048 Oct 13 j 20:34 -3047 Jan 21 j 08:30 -3047 Mar 23 j 05:17	24°\$48'20 0°\$\Omega\$ 11°\$\Omega\$45'05 6°\$\Omega\$53'02 6°\$\Omega\$43'56 1°\$\Omega\$51'11 15°\$\Omega\$19°\$\Omega\$40'44 22°\$\Omega\$04'02 22°\$\Omega\$28'36 22°\$\Omega\$28'36 25°\$\Omega\$15'24 0°\$\Omega\$12"\$\Omega\$32'12 7°\$\Omega\$40'37	1°54'09 4.40174 AU 6.37658 AU 1°20'30 1°20'32
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54 -3053 Mar 14 j 21:58 -3053 Mar 28 j 13:56 -3053 Mar 28 j 13:59 -3053 Mar 30 j 14:10 -3053 Apr 11 j 07:58 -3053 Jun 21 j 11:41	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0°₩ 9°₩05'52 12°₩16'56 12°₩45'02 15°₩28'47 0°Ψ	1°17'17 6.00175 AU 4.02859 AU -1°-58'-21 -1°-13'-25 1°13'28	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31 -3048 Aug 05 j 20:26 -3048 Aug 27 j 15:34 -3048 Sep 07 j 11:02 -3048 Sep 09 j 07:23 -3048 Sep 09 j 07:24 -3048 Sep 21 j 20:50 -3048 Oct 13 j 20:34 -3047 Jan 21 j 08:30 -3047 Mar 23 j 05:17 -3047 Mar 24 j 13:24	24°\$48'20 0°\$\Omega\$ 11°\$\Omega\$45'05 6°\$\Omega\$53'02 6°\$\Omega\$43'56 1°\$\Omega\$51'11 15°\$\Omega\$19°\$\Omega\$40'44 22°\$\Omega\$04'02 22°\$\Omega\$28'36 22°\$\Omega\$28'36 25°\$\Omega\$15'24 0°\$\Omega\$12°\$\Omega\$2'12 7°\$\Omega\$40'37 7°\$\Omega\$30'23	1°54'09 4.40174 AU 6.37658 AU 1°20'30 1°20'32
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54 -3053 Mar 14 j 21:58 -3053 Mar 28 j 13:59 -3053 Mar 30 j 14:10 -3053 Apr 11 j 07:58 -3053 Jun 21 j 11:41 -3053 Aug 18 j 13:17	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0°₩ 9°₩05'52 12°₩16'54 12°₩16'56 12°₩45'02 15°₩28'47 0°Ψ 5°Ψ01'26	1°17'17 6.00175 AU 4.02859 AU -1°-58'-21 -1°-13'-25 1°13'28 6.06856 AU	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31 -3048 Aug 05 j 20:26 -3048 Aug 27 j 15:34 -3048 Sep 07 j 11:02 -3048 Sep 09 j 07:23 -3048 Sep 09 j 07:24 -3048 Sep 21 j 20:50 -3048 Oct 13 j 20:34 -3047 Jan 21 j 08:30 -3047 Mar 23 j 05:17 -3047 Mar 24 j 13:24 -3047 May 24 j 15:47	24°\$48'20 0°\$\Omega\$ 11°\$\Omega\$45'05 6°\$\Omega\$53'02 6°\$\Omega\$43'56 1°\$\Omega\$51'11 15°\$\Omega\$19*\$\Omega\$40'44 22°\$\Omega\$04'02 22°\$\Omega\$28'36 22°\$\Omega\$28'36 25°\$\Omega\$15'24 0°\$\Omega\$120*\$\Omega\$32'12 7°\$\Omega\$40'37 7°\$\Omega\$30'23 2°\$\Omega\$41'09	1°54'09 4.40174 AU 6.37658 AU 1°20'30 1°20'32
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54 -3053 Mar 14 j 21:58 -3053 Mar 28 j 13:56 -3053 Mar 28 j 13:59 -3053 Mar 30 j 14:10 -3053 Apr 11 j 07:58 -3053 Jun 21 j 11:41 -3053 Aug 18 j 13:17 -3053 Oct 16 j 23:52	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0° € 9° € 16'54 12° € 16'54 12° € 16'56 12° € 28'47 0° € 5° ♥ 01'26 29° € 56'45	1°17'17 6.00175 AU 4.02859 AU -1°-58'-21 -1°-13'-25 1°13'28 6.06856 AU	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31 -3048 Aug 05 j 20:26 -3048 Aug 27 j 15:34 -3048 Sep 07 j 11:02 -3048 Sep 09 j 07:23 -3048 Sep 09 j 07:24 -3048 Sep 21 j 20:50 -3048 Oct 13 j 20:34 -3047 Jan 21 j 08:30 -3047 Mar 23 j 05:17 -3047 Mar 24 j 13:24 -3047 Sep 27 j 15:50	24°\$48'20 0°\$\Omega\$ 11°\$\Omega\$45'05 6°\$\Omega\$53'02 6°\$\Omega\$43'56 1°\$\Omega\$51'11 15°\$\Omega\$19*\$\Omega\$40'44 22°\$\Omega\$04'02 22°\$\Omega\$28'36 22°\$\Omega\$28'36 25°\$\Omega\$15'24 0°\$\Omega\$120*\$\Omega\$32'12 7°\$\Omega\$40'37 7°\$\Omega\$30'23 2°\$\Omega\$41'09 20°\$\Omega\$43'49	1°54'09 4.40174 AU 6.37658 AU 1°20'30 1°20'32 1°52'04 4.34013 AU
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54 -3053 Mar 14 j 21:58 -3053 Mar 28 j 13:56 -3053 Mar 28 j 13:59 -3053 Mar 30 j 14:10 -3053 Apr 11 j 07:58 -3053 Jun 21 j 11:41 -3053 Aug 18 j 13:17 -3053 Oct 16 j 23:52 -3053 Oct 15 j 20:22	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0°₩ 9°₩05'52 12°₩16'54 12°₩16'56 12°₩45'02 15°₩28'47 0°Ψ 5°Ψ01'26 29°₩56'45 0°Ψ06'09	1°17'17 6.00175 AU 4.02859 AU -1°-58'-21 -1°-13'-25 1°13'28 6.06856 AU	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31 -3048 Aug 05 j 20:26 -3048 Aug 27 j 15:34 -3048 Sep 07 j 11:02 -3048 Sep 09 j 07:23 -3048 Sep 09 j 07:24 -3048 Sep 21 j 20:50 -3048 Oct 13 j 20:34 -3047 Jan 21 j 08:30 -3047 Mar 23 j 05:17 -3047 Mar 24 j 13:24 -3047 May 24 j 15:47	24°\$48'20 0°\$\Omega\$ 11°\$\Omega\$45'05 6°\$\Omega\$53'02 6°\$\Omega\$43'56 1°\$\Omega\$51'11 15°\$\Omega\$19*\$\Omega\$40'44 22°\$\Omega\$04'02 22°\$\Omega\$28'36 22°\$\Omega\$28'36 25°\$\Omega\$15'24 0°\$\Omega\$120*\$\Omega\$32'12 7°\$\Omega\$40'37 7°\$\Omega\$30'23 2°\$\Omega\$41'09	1°54'09 4.40174 AU 6.37658 AU 1°20'30 1°20'32
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54 -3053 Mar 14 j 21:58 -3053 Mar 28 j 13:56 -3053 Mar 28 j 13:59 -3053 Mar 30 j 14:10 -3053 Apr 11 j 07:58 -3053 Aug 18 j 13:17 -3053 Oct 16 j 23:52 -3053 Oct 15 j 20:22 -3053 Oct 16 j 14:22	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0°₩ 9°₩05'52 12°₩16'54 12°₩16'56 12°₩45'02 15°₩28'47 0°Ψ 5°Ψ01'26 29°₩56'45 0°Ψ06'09 30°₹₩	1°17'17 6.00175 AU 4.02859 AU -1°-58'-21 -1°-13'-25 1°13'28 6.06856 AU	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Apr 22 j 19:31 -3048 Aug 05 j 20:26 -3048 Aug 27 j 15:34 -3048 Sep 07 j 11:02 -3048 Sep 09 j 07:23 -3048 Sep 09 j 07:24 -3048 Sep 21 j 20:50 -3048 Oct 13 j 20:34 -3047 Jan 21 j 08:30 -3047 Mar 24 j 13:24 -3047 May 24 j 15:47 -3047 Sep 27 j 15:50 -3047 Oct 08 j 11:12	24°S48'20 0°N 11°N45'05 6°N53'02 6°N43'56 1°N51'11 15°N 19°N40'44 22°N04'02 22°N28'36 22°N28'36 25°N15'24 0°M 12°M32'12 7°M40'37 7°M30'23 2°M41'09 20°M43'49 23°M10'14	1°54'09 4.40174 AU 6.37658 AU 1°20'30 1°20'32 1°52'04 4.34013 AU 6.29055 AU
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54 -3053 Mar 14 j 21:58 -3053 Mar 28 j 13:56 -3053 Mar 28 j 13:59 -3053 Mar 30 j 14:10 -3053 Apr 11 j 07:58 -3053 Aug 18 j 13:17 -3053 Oct 16 j 23:52 -3053 Oct 16 j 23:52 -3053 Oct 16 j 14:22 -3053 Dec 14 j 17:44	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0°	1°17'17 6.00175 AU 4.02859 AU -1°-58'-21 -1°-13'-25 1°13'28 6.06856 AU	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Aug 05 j 20:26 -3048 Aug 05 j 20:26 -3048 Sep 07 j 11:02 -3048 Sep 09 j 07:23 -3048 Sep 09 j 07:24 -3048 Sep 21 j 20:50 -3048 Oct 13 j 20:34 -3047 Jan 21 j 08:30 -3047 Mar 23 j 05:17 -3047 Mar 24 j 13:24 -3047 Sep 27 j 15:50 -3047 Oct 08 j 11:12	24°\$48'20 0°\$\Omega\$ 11°\$\Omega\$45'05 6°\$\Omega\$53'02 6°\$\Omega\$43'56 1°\$\Omega\$51'11 15°\$\Omega\$1 19°\$\Omega\$40'44 22°\$\Omega\$04'02 22°\$\Omega\$28'36 22°\$\Omega\$28'36 25°\$\Omega\$15'24 0°\$\Omega\$12'2 7°\$\Omega\$40'37 7°\$\Omega\$30'23 2°\$\Omega\$41'09 20°\$\Omega\$43'49 23°\$\Omega\$10'14 23°\$\Omega\$3'55	1°54'09 4.40174 AU 6.37658 AU 1°20'30 1°20'32 1°52'04 4.34013 AU 6.29055 AU 1°07'00
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54 -3053 Mar 14 j 21:58 -3053 Mar 28 j 13:56 -3053 Mar 28 j 13:56 -3053 Mar 30 j 14:10 -3053 Apr 11 j 07:58 -3053 Jun 21 j 11:41 -3053 Aug 18 j 13:17 -3053 Oct 16 j 23:52 -3053 Oct 16 j 14:22 -3053 Dec 14 j 17:44 -3052 Feb 10 j 18:12	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0° \text{Y} 9°\text{16'54} 12°\text{16'56} 12°\text{16'56} 12°\text{16'56} 12°\text{16'56} 12°\text{16'56} 29°\text{56'45} 0°\text{Y} 0°\text{06'09} 30°\text{R}\text{24°\text{56'48}} 0°\text{Y}	1°17'17 6.00175 AU 4.02859 AU -1°-58'-21 -1°-13'-25 1°13'28 6.06856 AU	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Aug 05 j 20:26 -3048 Aug 05 j 20:26 -3048 Sep 07 j 11:02 -3048 Sep 09 j 07:24 -3048 Sep 09 j 07:24 -3048 Sep 21 j 20:50 -3048 Oct 13 j 20:34 -3047 Jan 21 j 08:30 -3047 Mar 23 j 05:17 -3047 Mar 24 j 13:24 -3047 Sep 27 j 15:50 -3047 Oct 10 j 04:59 -3047 Oct 10 j 04:59 -3047 Oct 10 j 05:02	24°\$48'20 0°\$\Omega\$ 11°\$\Omega\$45'05 6°\$\Omega\$53'02 6°\$\Omega\$43'56 1°\$\Omega\$51'11 15°\$\Omega\$1 19°\$\Omega\$40'44 22°\$\Omega\$04'02 22°\$\Omega\$28'36 22°\$\Omega\$28'36 22°\$\Omega\$28'36 25°\$\Omega\$15'24 0°\$\Omega\$12'2 7°\$\Omega\$40'37 7°\$\Omega\$30'23 2°\$\Omega\$41'09 20°\$\Omega\$43'49 23°\$\Omega\$10'14 23°\$\Omega\$3'55 23°\$\Omega\$3'55	1°54'09 4.40174 AU 6.37658 AU 1°20'30 1°20'32 1°52'04 4.34013 AU 6.29055 AU
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54 -3053 Mar 14 j 21:58 -3053 Mar 28 j 13:56 -3053 Mar 28 j 13:59 -3053 Mar 30 j 14:10 -3053 Apr 11 j 07:58 -3053 Aug 18 j 13:17 -3053 Oct 16 j 23:52 -3053 Oct 16 j 23:52 -3053 Oct 16 j 14:22 -3053 Dec 14 j 17:44	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0°	1°17'17 6.00175 AU 4.02859 AU -1°-58'-21 -1°-13'-25 1°13'28 6.06856 AU	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Aug 05 j 20:26 -3048 Aug 05 j 20:26 -3048 Sep 07 j 11:02 -3048 Sep 07 j 11:02 -3048 Sep 09 j 07:24 -3048 Sep 09 j 07:24 -3048 Sep 21 j 20:50 -3048 Oct 13 j 20:34 -3047 Jan 21 j 08:30 -3047 Mar 23 j 05:17 -3047 Mar 24 j 13:24 -3047 Sep 27 j 15:50 -3047 Oct 08 j 11:12 -3047 Oct 10 j 04:59 -3047 Oct 10 j 05:02 -3047 Oct 22 j 17:00	24°\$48'20 0°\$\Omega\$ 11°\$\Omega\$45'05 6°\$\Omega\$53'02 6°\$\Omega\$43'56 1°\$\Omega\$51'11 15°\$\Omega\$19°\$\Omega\$40'44 22°\$\Omega\$04'02 22°\$\Omega\$28'36 22°\$\Omega\$28'36 22°\$\Omega\$28'36 22°\$\Omega\$212 7°\$\Omega\$40'37 7°\$\Omega\$30'23 2°\$\Omega\$41'09 20°\$\Omega\$43'49 23°\$\Omega\$3'55 23°\$\Omega\$3'57 26°\$\Omega\$23'42	1°54'09 4.40174 AU 6.37658 AU 1°20'30 1°20'32 1°52'04 4.34013 AU 6.29055 AU 1°07'00
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54 -3053 Mar 28 j 13:56 -3053 Mar 28 j 13:59 -3053 Mar 30 j 14:10 -3053 Apr 11 j 07:58 -3053 Jun 21 j 11:41 -3053 Aug 18 j 13:17 -3053 Oct 16 j 23:52 -3053 Oct 16 j 14:22 -3053 Dec 14 j 17:44 -3052 Feb 10 j 18:12 -3052 Apr 19 j 10:27	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0°	1°17'17 6.00175 AU 4.02859 AU -1°-58'-21 -1°-13'-25 1°13'28 6.06856 AU	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Aug 05 j 20:26 -3048 Aug 05 j 20:26 -3048 Sep 07 j 11:02 -3048 Sep 07 j 11:02 -3048 Sep 09 j 07:24 -3048 Sep 09 j 07:24 -3048 Sep 21 j 20:50 -3048 Oct 13 j 20:34 -3047 Jan 21 j 08:30 -3047 Mar 23 j 05:17 -3047 Mar 24 j 13:24 -3047 Mar 24 j 15:47 -3047 Oct 10 j 04:59 -3047 Oct 10 j 04:59 -3047 Oct 10 j 05:02 -3047 Oct 22 j 17:00 -3047 Nov 07 j 22:24	24°\$48'20 0°\$\Omega\$ 11°\$\Omega\$45'05 6°\$\Omega\$53'02 6°\$\Omega\$43'56 1°\$\Omega\$51'11 15°\$\Omega\$1 19°\$\Omega\$40'44 22°\$\Omega\$22°\$\Omega\$28'36 22°\$\Omega\$28'36 22°\$\Omega\$28'36 22°\$\Omega\$28'36 22°\$\Omega\$28'36 22°\$\Omega\$212 7°\$\Omega\$40'37 7°\$\Omega\$30'23 2°\$\Omega\$41'09 20°\$\Omega\$41'09 23°\$\Omega\$41'09 23°\$\Omega\$3'55 23°\$\Omega\$33'55 23°\$\Omega\$33'57 26°\$\Omega\$23'42 0°\$\Omega\$	1°54'09 4.40174 AU 6.37658 AU 1°20'30 1°20'32 1°52'04 4.34013 AU 6.29055 AU 1°07'00
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-3054 Feb 20 j 20:15 -3054 Mar 04 j 14:44 -3054 Mar 28 j 04:03 -3054 Jul 14 j 09:05 -3054 Sep 10 j 19:32 -3054 Sep 12 j 02:44 -3054 Nov 09 j 02:04 -3053 Feb 01 j 19:54 -3053 Mar 14 j 21:58 -3053 Mar 28 j 13:56 -3053 Mar 28 j 13:56 -3053 Mar 30 j 14:10 -3053 Apr 11 j 07:58 -3053 Jun 21 j 11:41 -3053 Aug 18 j 13:17 -3053 Oct 16 j 23:52 -3053 Oct 16 j 14:22 -3053 Dec 14 j 17:44 -3052 Feb 10 j 18:12	6°≈45'56 9°≈33'35 15°≈ 29°≈51'02 24°≈56'34 24°≈45'57 19°≈49'17 0° \text{Y} 9°\text{16'54} 12°\text{16'56} 12°\text{16'56} 12°\text{16'56} 12°\text{16'56} 12°\text{16'56} 29°\text{56'45} 0°\text{Y} 0°\text{06'09} 30°\text{R}\text{24°\text{56'48}} 0°\text{Y}	1°17'17 6.00175 AU 4.02859 AU -1°-58'-21 -1°-13'-25 1°13'28 6.06856 AU -1°-30'-24 4.12148 AU	retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-3049 Aug 23 j 08:40 -3049 Sep 16 j 20:23 -3049 Dec 21 j 14:45 -3048 Feb 20 j 02:12 -3048 Feb 21 j 06:38 -3048 Aug 05 j 20:26 -3048 Aug 05 j 20:26 -3048 Sep 07 j 11:02 -3048 Sep 07 j 11:02 -3048 Sep 09 j 07:24 -3048 Sep 09 j 07:24 -3048 Sep 21 j 20:50 -3048 Oct 13 j 20:34 -3047 Jan 21 j 08:30 -3047 Mar 23 j 05:17 -3047 Mar 24 j 13:24 -3047 Sep 27 j 15:50 -3047 Oct 08 j 11:12 -3047 Oct 10 j 04:59 -3047 Oct 10 j 05:02 -3047 Oct 22 j 17:00	24°\$48'20 0°\$\Omega\$ 11°\$\Omega\$45'05 6°\$\Omega\$53'02 6°\$\Omega\$43'56 1°\$\Omega\$51'11 15°\$\Omega\$19°\$\Omega\$40'44 22°\$\Omega\$04'02 22°\$\Omega\$28'36 22°\$\Omega\$28'36 22°\$\Omega\$28'36 22°\$\Omega\$212 7°\$\Omega\$40'37 7°\$\Omega\$30'23 2°\$\Omega\$41'09 20°\$\Omega\$43'49 23°\$\Omega\$3'55 23°\$\Omega\$3'57 26°\$\Omega\$23'42	1°54'09 4.40174 AU 6.37658 AU 1°20'30 1°20'32 1°52'04 4.34013 AU 6.29055 AU 1°07'00

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3046 in astronomical counting style is the year 3047 BCE in historical counting style. min. Earth dist. -3046 Apr 26 j 23:58 9°**£**21'57 4.23440 AU direct -3041 Dec 19 i 14:56 29° ★ 52'28 -3046 Jun 26 j 09:55 -3041 Dec 28 j 07:13 $0^{\circ}\Upsilon$ direct 4°£34'06 -3046 Oct 29 j 11:33 22° **2**59'30 -3040 Apr 24 j 10:32 18°**Y**39'32 evening set evening set -3046 Nov 09 j 21:13 25°**2**38'10 6.17456 AU max. Earth dist. -3040 May 08 j 04:58 21°**Υ**45'56 0°-37'-40 conjunction -3040 May 08 j 05:01 21°**Y**45'57 -3046 Nov 11 j 02:27 25°**£**55'10 0°32'40 conjunction minimum elong 0°37'40 -3040 May 09 j 13:27 22°**Y**04'17 -3046 Nov 11 j 02:29 25°**♀**55'11 minimum elong 0°32'37 max. Earth dist. 6.19962 AU -3046 Nov 23 j 18:09 28°**♀**51'27 -3040 May 21 j 23:17 24°**Y**52'00 morning rise morning rise -3040 Jun 14 j 09:44 -3046 Nov 28 j 17:11 0°M 0°8 -3045 Feb 15 j 18:57 15°M retrograde -3040 Sep 24 j 02:13 13°**8**13'07 retrograde -3045 Mar 31 j 05:02 17°M 49'06 opposition -3040 Nov 22 j 13:59 8°**8**11'47 0°-23'-58 -3040 Nov 22 j 00:31 -3045 May 14 j 06:31 15°RM min. Earth dist. 8°**8**16'20 4.25767 AU -3039 Jan 21 j 17:35 opposition -3045 May 31 j 04:45 12°M 53'22 0°14'36 direct 3°**8**09'04 min. Earth dist. -3045 May 31 j 16:31 12°M 49'34 4.11582 AU asc. node -3039 Apr 16 j 23:03 12°**8**40'45 direct -3045 Jul 30 j 09:35 7°M59'17 -3039 Apr 28 j 17:28 15°**႘** 8°M46'12 desc. node -3045 Aug 21 j 10:55 evening set -3039 May 29 j 03:58 21°**8**28'16 -3045 Oct 07 j 19:53 15°M evening set -3045 Dec 01 j 21:03 26°M 52'14 conjunction -3039 Jun 11 j 18:47 24°**8**28'27 minimum elong -3039 Jun 11 j 18:47 24°**8**28'27 0°06'23 conjunction -3045 Dec 14 j 17:14 29°ML54'53 0°-13'-50 behind sun begin -3039 Jun 11 j 11:01 24°**8**24'11 minimum elong -3045 Dec 14 j 17:13 29°M 54'53 0°13'56 behind sun end -3039 Jun 12 j 02:34 24° 832'44 behind sun begin -3045 Dec 14 j 12:57 29° ML52'21 max. Earth dist. -3039 Jun 12 i 03:50 24°₩33'26 6.31126 AU -3039 Jun 25 j 07:14 27°**8**27'22 behind sun end -3045 Dec 14 j 21:30 29°M 57'25 morning rise -3039 Jul 07 j 00:15 0°**Ⅱ** max. Earth dist. -3045 Dec 14 j 13:50 29°ML52'52 6.06481 AU -3045 Dec 15 j 01:52 0° ₹ retrograde -3039 Oct 25 j 09:24 14°**Д**56'59 -3045 Dec 27 j 15:30 2° ₹ 58'53 -3039 Dec 24 j 03:28 9°**I**59'40 0°40'01 morning rise opposition -3044 May 06 j 07:47 22° ₹ 52'38 min. Earth dist. -3039 Dec 24 j 05:50 9°**Ⅲ**58'53 4.35487 AU retrograde -3044 Jul 05 j 21:27 17° ₹ 53'06 0°-55'-52 -3038 Feb 23 j 13:05 4°**Д**56'04 opposition direct -3044 Jul 05 j 14:17 17°**尽** 55'27 -3038 Jul 01 j 05:28 22°**Ⅲ**54'21 min. Earth dist. 4.02505 AU evening set -3044 Sep 02 j 18:56 13°**尽**00'04 direct -3044 Dec 26 j 14:19 -3038 Jul 14 j 11:59 25°**Ⅲ**48'03 0°46'59 0°ನ conjunction -3043 Jan 05 j 04:33 -3038 Jul 14 j 11:56 25°**Ⅱ**48'01 0°47'04 2°る16'09 minimum elong evening set -3038 Jul 13 j 18:19 25°**Д**38'24 6.38650 AU max. Earth dist. -3043 Jan 18 j 07:32 5°**ප**24'37 0°-56'-40 -3038 Jul 27 j 15:29 28°**Ⅲ**40'11 conjunction morning rise -3043 Jan 18 j 07:29 5°る24'35 0°56'46 -3038 Aug 02 j 19:08 0°€ minimum elong -3043 Jan 19 j 07:25 5°る38'55 6.00110 AU -3038 Nov 25 j 02:24 15°541'19 max. Earth dist. retrograde -3043 Jan 31 j 13:53 8°る34'52 -3037 Jan 24 j 04:43 10°5047'25 1°30'36 morning rise opposition retrograde -3043 Jun 12 j 19:44 28°**궁**59'09 min. Earth dist. -3037 Jan 24 j 23:33 10°5541'18 4.40437 AU opposition -3043 Aug 11 j 22:53 23°る55'51 -1°-47'-3 direct -3037 Mar 27 j 13:31 5°9544'16 min. Earth dist. -3043 Aug 10 j 21:59 24°**정**04'14 3.99676 AU evening set -3037 Aug 01 j 23:09 23°533'08 direct -3043 Oct 08 j 23:22 19°**⋜**01'39 max. Earth dist. -3037 Aug 13 j 09:25 26°502'56 6.40547 AU -3042 Jan 04 j 19:28 -3042 Feb 10 j 23:40 -3037 Aug 14 j 20:54 26°\$22'22 1°13'44 evening set 8°≈25'54 conjunction -3037 Aug 14 j 20:52 26°522'21 minimum elong -3042 Feb 24 j 10:09 11°≈37'12 -1°-18'-30 -3037 Aug 27 j 15:23 29°510'06 conjunction morning rise -3042 Feb 24 i 10:09 11°≈37'12 1°18'35 minimum elong $-3037 \text{ Aug } 31 \text{ i } 11:14 \quad 0^{\circ} \Omega$ -3042 Feb 26 i 06:58 12°≈03'50 max. Earth dist. 6.00928 AU $-3037 \text{ Nov } 28 \text{ i } 16:52 \quad 15^{\circ}\Omega$ -3042 Mar 09 i 23:44 14°≈50'01 morning rise retrograde -3037 Dec 25 i 23:23 16° Ω09'13 -3042 Mar 10 i 16:42 15°≈ -3036 Jan 22 j 08:23 15°R**Ω** -3042 May 22 i 07:10 0°**₩** $-3036 \text{ Feb} 24 \text{ j} 12:37 11^{\circ} \Omega 17'21 1^{\circ}55'51$ opposition -3042 Jul 19 j 12:06 5°¥02'12 min. Earth dist. $-3036 \text{ Feb } 25 \text{ j } 17:24 \quad 11^{\circ} \Omega 08'08 \quad 4.39320 \text{ AU}$ retrograde min. Earth dist. -3042 Sep 15 j 21:27 0°**¥**07'28 4.04145 AU direct -3036 Apr 27 j 04:39 6°**Ω**15'50 -3042 Sep 16 j 19:21 30°R≈ -3036 Jul 18 j 19:51 15°**Ω** -3042 Sep 17 j 04:17 29°≈56'57 -1°-56'-50 opposition evening set $-3036 \text{ Sep } 01 \text{ j } 00:16 \quad 24^{\circ} \Omega 07'52$ direct -3042 Nov 14 j 06:44 24°≈59'47 max. Earth dist. -3036 Sep 11 j 19:04 26°**Ω**31'16 6.36386 AU -3041 Jan 10 j 02:13 0°**∀** -3041 Mar 20 j 03:20 14°**米** 12'25 -3036 Sep 13 j 15:28 26°**Q**55'58 1°19'57 conjunction evening set -3036 Sep 13 j 15:29 $26^{\circ}\Omega$ 55'59 1°20'00 minimum elong -3041 Apr 02 j 19:59 17° **★** 22'57 -1°-10'-30 -3036 Sep 26 j 04:27 29°**Ω**43'07 conjunction morning rise -3041 Apr 02 j 20:02 17°**米** 22'59 1°10'32 -3036 Sep 27 j 11:02 minimum elong 0° M -3035 Jan 26 j 00:43 17° Mp 05'55 max. Earth dist. -3041 Apr 04 j 20:56 17° **★** 51'23 6.08550 AU retrograde morning rise -3041 Apr 16 j 14:16 20° **★** 34'10 opposition -3035 Mar 27 j 21:28 12° m 14'21 1°48'59 -3041 May 29 j 20:43 $0^{\circ}\Upsilon$ min. Earth dist. -3035 Mar 29 j 06:10 12° Mp 03'57 4.32399 AU retrograde -3041 Aug 23 j 07:05 9°**Y**57′13 direct -3035 May 29 j 06:15 7° Mp 15'21 evening set opposition -3041 Oct 21 j 18:04 4°**Y**52'49 -1°-23'-32 -3035 Oct 02 j 03:01 25° m 21'53 min. Earth dist. -3041 Oct 20 j 15:10 5°**Υ**01'59 4.14063 AU max. Earth dist. -3035 Oct 12 j 22:52 27° m 49'15 6.27239 AU

-3041 Dec 11 j 00:00 30°R €

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3035 in astronomical counting style is the year 3036 BCE in historical counting style. -3035 Oct 14 j 16:11 28° m 12'45 1°03'13 retrograde -3029 Aug 27 j 23:03 14°**Υ**'49'33 conjunction -3035 Oct 14 j 16:14 28° m 12'47 min. Earth dist. -3029 Oct 25 j 09:32 9°**Υ**53'58 4.15795 AU minimum elong 1°03'13 -3035 Oct 22 j 12:43 -3029 Oct 26 j 10:33 9°**Υ**45'26 -1°-16'-15 0∘⊽ opposition -3035 Oct 27 j 04:37 -3029 Dec 24 j 11:42 4°**Y**44'38 1°**₽**03'27 direct morning rise -3028 Apr 29 j 09:04 23°**Y**27'19 -3034 Feb 28 j 17:41 19°**£**11'48 retrograde evening set -3034 Apr 30 j 19:26 14°**2**18'38 opposition 1°09'09 -3028 May 13 j 03:30 26°**Y**32'57 min. Earth dist. -3034 May 01 j 19:59 14°**♀**10'47 4.21551 AU conjunction 0°-31'-51 -3034 Jul 01 j 03:47 9°**£**22'31 $-3028 \text{ May } 13 \text{ j } 03:33 \quad 26^{\circ} \Upsilon 32'58$ direct minimum elong 0°31'49 -3028 May 14 j 09:59 26°**Y** 50'06 evening set -3034 Nov 03 j 03:55 27°**£**52'18 max. Earth dist. 6.21677 AU -3028 May 26 j 21:10 29° **Y** 38'02 -3034 Nov 12 j 07:33 0°M morning rise -3028 May 28 j 12:35 0°8 -3034 Nov 15 j 19:29 0°M49'00 0°26'25 -3028 Aug 16 j 14:13 15°8 conjunction -3034 Nov 15 j 19:31 -3028 Sep 28 j 12:49 17°850'54 minimum elong 0°**ጤ**49'01 0°26'23 retrograde -3028 Nov 10 j 09:26 15°R8 max. Earth dist. -3034 Nov 14 j 19:09 0°M34'48 6.15683 AU morning rise -3034 Nov 28 j 11:51 3°M46'22 opposition -3028 Nov 27 j 01:15 12°**8**50'08 0°-14'-48 -3033 Jan 19 j 20:29 15°M min. Earth dist. -3028 Nov 26 j 13:49 12°**8**53'58 4.27308 AU retrograde -3033 Apr 05 j 11:57 22°M52'42 direct -3027 Jan 26 j 09:05 7°**8**47'14 opposition -3033 Jun 05 j 09:26 17°M 56'30 0°04'23 asc. node -3027 Feb 24 j 18:16 9°806'53 min. Earth dist. -3033 Jun 05 j 19:02 17°ML53'24 4.10066 AU -3027 Apr 09 i 04:43 15°8 desc. node -3033 Jun 29 j 23:04 14°M 59'06 evening set -3027 Jun 02 j 21:04 26° **8**03'00 -3033 Jun 29 j 19:34 15°RML direct -3033 Aug 04 i 10:20 13°ML02'42 conjunction -3027 Jun 16 j 10:49 29°**8**02'16 0°12'27 -3033 Sep 08 i 12:26 15°ML minimum elong -3027 Jun 16 j 10:47 29°**8**02'15 0°12'32 -3027 Jun 16 j 05:36 28°**8**59'24 -3033 Nov 28 i 08:54 0°×7 behind sun begin -3033 Dec 06 j 19:47 1°**х** 59′07 behind sun end -3027 Jun 16 j 15:59 29°**8**05'06 evening set max. Earth dist. -3027 Jun 16 j 14:26 29°804'15 6.32372 AU -3033 Dec 19 j 16:45 5°**₹**'02'38 0°-20'-37 -3027 Jun 20 j 19:32 $\Pi^{\circ}0$ conjunction -3033 Dec 19 j 16:43 5°**х** 02'37 -3027 Jun 29 j 22:18 2°**I**100'13 minimum elong 0°20'44 morning rise -3033 Dec 19 j 16:46 5°**∡**'02'39 -3027 Oct 29 j 17:16 19°**Ⅲ**24'44 max. Earth dist. 6.05354 AU retrograde -3032 Jan 01 j 16:15 8°**х**¹07'37 -3027 Dec 28 j 12:07 14°**Ⅲ**27'54 0°48'15 morning rise opposition -3032 May 11 j 14:50 28°**尽** 06'57 -3027 Dec 28 j 17:32 14° **II** 26'07 4.36371 AU retrograde min. Earth dist. -3032 Jul 11 j 04:26 23°**尽** 06'47 -1°-5'-1 -3026 Feb 28 j 02:09 9°**Ⅱ**24'13 direct opposition -3032 Jul 10 j 17:14 23°**尽** 10'29 4.01896 AU -3026 Jul $\,$ 05 j 17:51 $\,$ 27°**П**20'58 $\,$ min. Earth dist. evening set -3032 Sep 07 j 21:05 18° **₹** 13'44 -3026 Jul 17 j 21:40 direct 0ಂತಾ -3032 Dec 08 j 14:56 0°ಕ -3026 Jul 18 j 23:19 -3031 Jan 10 j 08:26 0°514'01 0°51'46 evening set 7°る31'03 conjunction -3026 Jul 18 j 23:16 minimum elong 0°51'59 0°51'52 conjunction -3031 Jan 23 j 12:28 10°₹39'58 -1°-1'-23 max. Earth dist. -3026 Jul 18 j 03:43 0°903'18 6.39102 AU minimum elong -3031 Jan 23 j 12:24 10°**る**39'56 1°01'30 morning rise -3026 Aug 01 j 01:21 3°905'24 max. Earth dist. -3031 Jan 24 j 16:35 10°**ਰ**56'49 6.00043 AU retrograde -3026 Nov 29 j 09:07 20°505'15 morning rise -3031 Feb 05 j 19:44 13°**⋜**50'38 opposition -3025 Jan 28 j 13:36 15°511'44 1°35'53 -3031 Apr 25 j 19:35 min. Earth dist. -3025 Jan 29 j 09:28 15°505'18 4.40458 AU -3031 Jun 18 j 02:26 4°≈14'47 -3025 Mar 31 j 23:31 10°508'46 retrograde direct -3031 Aug 11 j 02:05 30°R ₹ -3025 Aug 06 j 08:56 27°558'01 evening set min. Earth dist. -3031 Aug 16 j 02:03 29°**궁**19'44 4.00160 AU -3025 Aug 15 j 15:57 0° Ω opposition -3031 Aug 17 j 03:51 29°る11'02 -1°-51'-13 max. Earth dist. -3025 Aug 17 i 15:07 0°Ω25'53 6.40119 AU -3031 Oct 14 i 04:47 24°る16'27 direct -3031 Dec 13 j 22:04 0°≈ conjunction -3025 Aug 19 i 05:28 0°Ω46'57 1°15'57 evening set -3030 Feb 16 i 05:33 13°≈39'04 minimum elong -3025 Aug 19 i 05:26 0°Ω46'56 1°16'01 -3030 Feb 21 j 22:38 15°≈ morning rise -3025 Aug 31 j 23:07 3°Ω34'28 -3025 Oct 28 j 18:16 15°Ω -3030 Mar 01 j 17:00 16°≈50'20 -1°-19'-12 retrograde -3025 Dec 30 j 11:27 $20^{\circ}\Omega$ 36'07 conjunction -3030 Mar 01 j 17:00 16°≈50'20 1°19'16 -3024 Feb 29 j 00:55 15° Ω 44'25 1°56'54 minimum elong opposition max. Earth dist. -3030 Mar 03 j 16:12 17°≈18'16 6.01900 AU min. Earth dist. $-3024 \text{ Mar } 01 \text{ j } 07:29 \quad 15^{\circ} \Omega 34'39 \quad 4.38488 \text{ AU}$ morning rise -3030 Mar 15 j 07:22 20°≈03'01 -3024 Mar 05 j 20:19 15°RΩ -3030 Apr 29 j 04:18 0°**∀** direct -3024 May 01 j 17:42 10°**Ω**43'13 -3024 Jun 26 j 08:49 15°**Ω** retrograde -3030 Jul 24 j 12:19 10°**米**09'00 -3030 Sep 20 j 20:14 5°**¥**14'21 4.05515 AU -3024 Sep 05 j 09:38 $28^{\circ}\Omega$ 37'13 min. Earth dist. evening set -3030 Sep 22 j 03:22 5°**)**€03'44 -1°-54'-28 -3024 Sep 11 j 14:50 opposition 0° m -3030 Nov 19 j 06:53 0°**)**€06'08 max. Earth dist. -3024 Sep 16 j 04:11 1° My 00'55 6.35220 AU direct -3029 Mar 25 j 07:11 19°**米** 14'56 evening set conjunction -3024 Sep 18 j 00:24 1° m 25'35 1°18'57 minimum elong conjunction -3029 Apr 08 j 00:12 22° **★**24'56 -1°-7'-7 -3024 Sep 18 j 00:25 1° Mp 25'36 1°19'00 minimum elong -3029 Apr 08 j 00:16 22° **★**24'58 1°07'08 morning rise -3024 Sep 30 j 12:59 4° Mp 13'03 max. Earth dist. -3029 Apr 09 j 22:09 22° **∺**51'31 6.10190 AU retrograde -3023 Jan 30 j 15:56 21° Mp41'29 -3029 Apr 21 j 18:55 25°**升**35'32 -3023 Apr 01 j 14:40 16° Mp 49'46 1°45'15 morning rise opposition

min. Earth dist.

-3023 Apr 02 j 21:35 16° m 39'57 4.30998 AU

-3029 May 11 j 08:33

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -3023 in astronomical counting style is the year 3024 BCE in historical counting style. direct -3023 Jun 02 j 19:49 11° m 51'14 minimum elong -3017 Apr 13 j 01:33 27° **€** 19'19 1°03'22 max. Earth dist. evening set -3023 Oct 06 j 14:45 -3017 Apr 14 j 22:45 27° \(\dagger 45'22 \) 6.11586 AU 0°**£**00'42 -3023 Oct 06 j 13:31 -3017 Apr 24 j 16:59 $0^{\circ}\Upsilon$ 0∘ഹ -3017 Apr 26 j 20:16 0°Y29'19 -3023 Oct 17 j 13:28 max. Earth dist. 2°**2**30'13 6.25743 AU morning rise 19°**Y**35'34 -3017 Sep 01 j 14:19 retrograde -3023 Oct 19 j 03:59 -3017 Oct 30 j 01:45 14°**Υ**39'43 4.17218 AU conjunction 2°**£**52'13 0°59'03 min. Earth dist. -3023 Oct 19 j 04:02 -3017 Oct 31 j 00:44 14°**Ƴ**31'54 minimum elong 2°**£**52'14 0°59'03 opposition -1°-8'-41 9°**Y**30'50 morning rise -3023 Oct 31 j 16:39 5°**£**43'40 direct -3017 Dec 29 j 05:35 28°**Y**10′27 retrograde -3022 Mar 05 j 17:35 23°**♀**59'21 evening set -3016 May 04 j 05:53 opposition -3022 May 05 j 18:22 19°**೨**05'52 1°01'08 -3016 May 12 j 09:35 0°8 min. Earth dist. -3022 May 06 j 17:44 18°**⊆**58'24 4.20052 AU -3022 Jul 05 j 23:44 -3016 May 17 j 23:56 direct 14°**₽**10'09 conjunction 1°**8**15'25 0°-25'-56 -3016 May 17 j 23:58 -3022 Oct 27 j 00:13 0°M minimum elong 1°**8**15'26 0°25'54 evening set -3022 Nov 07 j 19:41 2°M42'53 max. Earth dist. -3016 May 19 j 01:57 1°830'00 6.23023 AU morning rise -3016 May 31 j 17:14 4°819'44 conjunction -3022 Nov 20 j 11:49 5°**M**40′25 0°20'05 -3016 Jul 22 j 09:40 15°**8** minimum elong -3022 Nov 20 j 11:50 5°M40'25 0°20'02 retrograde -3016 Oct 02 j 22:01 22°**8**25'56 max. Earth dist. -3022 Nov 19 j 14:15 5°M27'48 6.14325 AU opposition -3016 Dec 01 j 11:20 17°**8**25'43 morning rise -3022 Dec 03 j 05:06 8°M38'45 min. Earth dist. -3016 Dec 01 j 02:04 17°**8**28'50 4.28480 AU -3022 Dec 31 j 08:32 15°M -3016 Dec 20 j 10:04 15°R8 retrograde -3021 Apr 10 j 14:25 27° ML52'09 asc. node -3015 Jan 05 j 05:31 13°**8**25'35 desc. node -3021 May 09 j 18:17 26° ML33'56 direct -3015 Jan 30 j 23:14 12°**8**22'38 opposition -3021 Jun 10 j 12:29 22°M 55'24 0°-5'-40 -3015 Mar 13 i 23:53 15°8 min. Earth dist. -3021 Jun 10 j 18:07 22° ML 53'34 4.08972 AU -3015 Jun 04 j 18:31 $\Pi^{\circ}0$ direct -3021 Aug 09 j 07:39 18°ML01'51 -3015 Jun 07 j 13:10 0°**I**I36'21 evening set -3021 Nov 11 j 01:00 0°×7 -3021 Dec 11 j 16:43 7°**₹**00'25 -3015 Jun 21 j 02:06 3°**Ⅲ**34'52 0°18'29 conjunction evening set -3015 Jun 21 j 02:04 3°**Ⅲ**34'51 0°18'33 minimum elong -3021 Dec 24 j 14:31 10° ₹ 04'36 0°-27'-6 -3015 Jun 21 j 03:17 3°**耳**35'31 conjunction max. Earth dist. 6.33306 AU -3021 Dec 24 j 14:29 10° ₹04'35 0°27'13 -3015 Jul 04 j 12:20 6° **Д**31'58 minimum elong morning rise -3021 Dec 24 j 19:10 10° ₹07'22 -3015 Nov 03 j 01:09 23°**Ⅲ**52'32 max. Earth dist. 6.04615 AU retrograde -3020 Jan 06 j 14:54 13°**尽** 10'19 -3014 Jan 01 j 20:46 18°**Ц**56'16 0°56'07 morning rise opposition -3014 Jan 02 j 04:04 18°**Д**53'52 4.37016 AU -3020 Mar 31 j 12:03 0°る min. Earth dist. -3020 May 16 j 20:21 3°る13'50 -3014 Mar 04 j 14:01 13°**Ⅲ**52'42 retrograde direct -3020 Jul 02 j 14:06 30°R ⊀ -3014 Jul 01 j 20:38 0ಂತಾ -3020 Jul 16 j 08:29 28° ₹ 13'06 -1°-13'-24 -3014 Jul 10 j 06:02 opposition evening set 1°9548'28 -3020 Jul 15 j 19:33 28° ₹ 17'23 4.01589 AU -3014 Jul 22 j 10:33 min. Earth dist. max. Earth dist. 4°9527'59 6.39397 AU direct -3020 Sep 12 j 23:24 23°**尽** 19'56 -3020 Nov 18 j 04:54 0°る conjunction -3014 Jul 23 j 10:06 4°9540'52 0°56'13 evening set -3019 Jan 15 j 09:43 12°♂37'44 minimum elong -3014 Jul 23 j 10:03 4°9540'50 0°56'19 morning rise -3014 Aug 05 j 11:03 7°**5**31'39 -3019 Jan 28 j 14:44 15°₹47'00 -1°-5'-30 -3014 Dec 03 j 17:58 24°530'46 conjunction retrograde -3019 Jan 28 j 14:41 15°₹46'58 1°05'37 -3013 Feb 01 j 23:12 19°537'34 1°40'37 minimum elong opposition -3019 Jan 29 j 22:24 16°る05'56 min. Earth dist. -3013 Feb 02 j 21:05 19°530'29 max. Earth dist. 6.00176 AU 4.40417 AU -3019 Feb 10 j 22:59 18°₹58'01 -3013 Apr 05 j 11:22 14°534'45 morning rise direct -3013 Jul 30 i 15:22 -3019 Apr 01 i 17:15 $0^{\circ}\Omega$ retrograde -3019 Jun 23 i 05:11 9°≈21'01 evening set -3013 Aug 10 j 18:29 2°**Ω**24'14 min. Earth dist. -3019 Aug 21 i 01:42 4°≈26'10 4.00751 AU max. Earth dist. -3013 Aug 22 j 00:00 4°Ω51'55 6.39734 AU opposition -3019 Aug 22 i 04:52 4°≈16'59 -1°-54'-22 -3019 Sep 30 j 00:19 30°Rる -3013 Aug 23 j 14:09 5°Ω12'54 1°17'42 conjunction direct -3019 Oct 19 i 04:39 29° ₹22'05 -3013 Aug 23 i 14:08 5°Ω12'53 1°17'46 minimum elong -3019 Nov 07 j 10:14 -3013 Sep 05 j 06:41 8°**Ω**00'09 0°≈≈ morning rise -3018 Feb 05 i 07:44 15°≈ -3013 Oct 08 j 13:49 15°Ω -3018 Feb 21 j 08:21 18°≈43'08 retrograde -3012 Jan 03 j 21:10 $25^{\circ}\Omega04'00$ evening set opposition -3012 Mar 04 j 13:07 $20^{\circ}\Omega$ 12'23 1°57'15 -3018 Mar 06 j 20:34 21°≈54'19 -1°-19'-16 conjunction min. Earth dist. -3012 Mar 05 j 19:22 20°**Ω**02'43 4.37789 AU minimum elong -3018 Mar 06 j 20:35 21°≈54'19 1°19'21 direct -3012 May 06 j 04:41 15°**Ω**11'30 -3018 Mar 08 j 18:49 22°≈21'37 6.02858 AU -3012 Aug 26 j 13:12 max. Earth dist. 0° m -3018 Mar 20 j 11:50 25°≈06'54 -3012 Sep 09 j 18:40 morning rise evening set 3° Mp 06'45 -3012 Sep 20 j 12:18 5° Mp 30'21 -3018 Apr 10 j 18:33 0°**)**€ max. Earth dist. 6.34241 AU -3018 Jul 29 j 07:53 15°**米** 07'04 retrograde opposition -3018 Sep 26 j 23:03 10° **★**01'49 -1°-51'-21 conjunction -3012 Sep 22 j 08:48 5° m 55'15 1°17'29 min. Earth dist. -3018 Sep 25 j 16:28 10° **★** 12'16 4.06734 AU minimum elong -3012 Sep 22 j 08:49 5° m 55'15 1°17'31 direct -3018 Nov 24 j 04:43 5°**)**€03'45 morning rise -3012 Oct 04 j 21:11 8° m 42'59 evening set -3017 Mar 30 j 07:48 24°**₭**09'37 retrograde -3011 Feb 04 j 08:49 26° Mp 16'21 -3011 Apr 06 j 07:27 21° m/24'28 opposition

min. Earth dist.

-3011 Apr 07 j 14:41 21° m 14'32 4.29761 AU

-3017 Apr 13 j 01:30 27° **€** 19'17 -1°-3'-21

conjunction

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 35 Attention, astronomical year style is used: The year -3011 in astronomical counting style is the year 3012 BCE in historical counting style.

Attention, astronom	ical year style is used: Tl	ne year -3011	in astronomical co	unting style is the year	3012 BCE in historical	counting style	
direct	-3011 Jun 07 j 11:13	16°M 26'14			-3005 Apr 08 j 01:56	0 ° Υ	
	-3011 Sep 20 j 04:57	0∘ ⊽					
evening set	-3011 Oct 11 j 01:13	4° ≏ 37'54		conjunction	-3005 Apr 18 j 05:52	2° Y 20′02	0°-59'-2
max. Earth dist.	-3011 Oct 22 j 01:55	7° ≏ 09'00	6.24345 AU	minimum elong	-3005 Apr 18 j 05:56	2° Y 20′04	0°59'03
				max. Earth dist.	-3005 Apr 20 j 00:48	2° Y 44'41	6.12874 AU
conjunction	-3011 Oct 23 j 14:42	7° ≏ 30'04	0°54'33	morning rise	-3005 May 02 j 00:58	5° Y 29'36	
minimum elong	-3011 Oct 23 j 14:45	7° ≏ 30'06	0°54'32	retrograde	-3005 Sep 06 j 06:20	24° Y 28′03	
morning rise	-3011 Nov 05 j 03:44	10° £ 22′16		opposition	-3005 Nov 04 j 17:25	19° Ƴ 24'49	-1°00'-26
retrograde	-3010 Mar 10 j 14:11	28° ≏ 45'00		min. Earth dist.	-3005 Nov 03 j 19:08	19° Ƴ 32'23	4.18651 AU
opposition	-3010 May 10 j 16:02	23° ჲ 51'05	0°52'44	direct	-3004 Jan 03 j 01:42	14° Y 23′24	
min. Earth dist.	-3010 May 11 j 12:44	23° ≏ 44'28	4.18571 AU		-3004 Apr 25 j 14:48	0°8	
direct	3	18° ≏ 55'42		evening set	-3004 May 09 j 05:34	2° 8 59'49	
	-3010 Oct 09 j 17:42	0°M					
evening set	-3010 Nov 12 j 10:39	7°M31'32		conjunction	-3004 May 22 j 23:18	6° 8 04'00	0°-19'-41
max. Earth dist.	-3010 Nov 24 j 08:52	10° ™ 19'05	6.12891 AU	minimum elong	-3004 May 22 j 23:19	6° 8 04'01	0°19'38
				max. Earth dist.	-3004 May 23 j 22:49	6° 8 17'10	6.24537 AU
conjunction	-3010 Nov 25 j 03:22			morning rise	-3004 Jun 05 j 15:50	9° 8 07'23	
minimum elong	-3010 Nov 25 j 03:23		0°13'34		-3004 Jul 02 j 21:17		
behind sun begin	-3010 Nov 24 j 22:48	10°M27'16		retrograde	-3004 Oct 07 j 11:10		
behind sun end	-3010 Nov 25 j 07:57	10°M32'36		asc. node	-3004 Nov 14 j 08:49		
morning rise	-3010 Dec 07 j 21:29	13°M29'15		opposition	-3004 Dec 06 j 00:08		0°03'34
	-3010 Dec 14 j 09:51	15°M		min. Earth dist.	-3004 Dec 05 j 17:05		4.29960 AU
	-3009 Mar 03 j 05:15	0° ∡ ¹		direct	-3003 Feb 04 j 17:03	17° 8 03'25	
desc. node	-3009 Mar 19 j 20:20	1° ∡¹ 43'07			-3003 May 18 j 18:08	Π $^{\circ}0$	
retrograde	-3009 Apr 15 j 18:10	2° ∡ ′50′10		evening set	-3003 Jun 12 j 07:14	5° Ⅱ 13'39	
	-3009 May 29 j 17:31	30°RM₊					
opposition	-3009 Jun 15 j 14:28	27°M52'51	0°-15'-42	conjunction	-3003 Jun 25 j 18:59	8°Ⅱ11′08	0°24'29
min. Earth dist.	-3009 Jun 15 j 18:27	27°M51'33	4.07685 AU	minimum elong	-3003 Jun 25 j 18:57	8° Ⅱ 11'07	0°24'35
direct	-3009 Aug 14 j 06:18	22°M59'23		max. Earth dist.	-3003 Jun 25 j 16:57	8° Ⅱ 10′02	6.34659 AU
	-3009 Oct 22 j 03:39	0°⊀		morning rise	-3003 Jul 09 j 04:00	11° Ⅱ 07'10	
evening set	-3009 Dec 16 j 13:40	12° ₰ 01'09		retrograde	-3003 Nov 07 j 09:06	28° Ⅲ 22′18	
				opposition	-3002 Jan 06 j 06:45	23° Ⅱ 26'32	1°03'42
conjunction	-3009 Dec 29 j 12:28	15° ₹ 06'13	0°-33'-24	min. Earth dist.	-3002 Jan 06 j 15:27		4.38186 AU
minimum elong	-3009 Dec 29 j 12:26	15° ∡ ¹06'11	0°33'30	direct	-3002 Mar 09 j 03:15	18° Ⅲ 23′00	
max. Earth dist.	-3009 Dec 29 j 20:56	15° √ 11'16	6.03596 AU		-3002 Jun 14 j 20:46	0°€	
morning rise	-3008 Jan 11 j 13:56			evening set	-3002 Jul 14 j 18:23	6° © 15'49	
S	-3008 Mar 05 j 09:32	ರ°0		C	J		
retrograde	-3008 May 22 j 01:58	8° ප් 21'20		conjunction	-3002 Jul 27 j 21:10	9° © 07'18	1°00'21
opposition	-3008 Jul 21 j 12:15		-1°-21'-18	minimum elong	-3002 Jul 27 j 21:07		
min. Earth dist.	-3008 Jul 20 j 20:54		4.00969 AU	max. Earth dist.	-3002 Jul 26 j 20:33		6.40302 AU
min. Burur dist.	-3008 Aug 18 j 05:33			morning rise	-3002 Aug 09 j 20:35	11°957'07	00502110
direct	-3008 Sep 17 j 23:24			retrograde	-3002 Dec 08 j 00:48		
direct	-3008 Oct 18 j 12:54	0°る		opposition	-3001 Feb 06 j 08:12		1°44'38
evening set	-3007 Jan 20 j 12:16			min. Earth dist.	-3001 Feb 07 j 07:21		4.41007 AU
evening set	3007 Juli 20 j 12.10	17 04032		direct	-3001 Apr 09 j 22:30		4.41007 710
conjunction	-3007 Feb 02 j 18:12	200至56/10	-1°-9'-9	direct	-3001 Jul 13 j 20:28	0° Ω	
minimum elong	-3007 Feb 02 j 18:10		1°09'15	evening set	-3001 Jul 13 j 20:28	6° Ω 45'40	
max. Earth dist.	-3007 Feb 04 j 03:24		5.99977 AU	max. Earth dist.	-3001 Aug 26 j 03:51	9° Ω 11'17	6.39936 AU
morning rise	-3007 Feb 16 j 03:38		3.99911 AU	max. Earth dist.	-3001 Aug 20 J 03.31	9 061111	0.39930 AU
morning risc		0°≈		anniumation	2001 Aug 27 ; 20:44	9° Ω 33'47	1°18'58
ratra ara da	-3007 Mar 13 j 12:36	0 ≈ 14°≈30'55		conjunction	-3001 Aug 27 j 20:44 -3001 Aug 27 j 20:43	9° € 33'46	1°19'03
retrograde	-3007 Jun 28 j 08:18		4.01001.411	minimum elong			1-1903
min. Earth dist.	-3007 Aug 26 j 02:35	9°≈36'08	4.01001 AU	morning rise	-3001 Sep 09 j 12:28	12° Ω 20'36	
opposition	-3007 Aug 27 j 06:59	9°≈26'30	-1°-56'-42		-3001 Sep 21 j 18:45		
direct	-3007 Oct 24 j 06:12	4° ≈ 31'10		retrograde	-3000 Jan 08 j 06:10		1056150
	-3006 Jan 18 j 00:03	15°≈		opposition	-3000 Mar 08 j 23:19		1°56'50
evening set	-3006 Feb 26 j 13:26	23°≈51'57		min. Earth dist.	-3000 Mar 10 j 06:48		4.37585 AU
	200637 12:11	0.770	10.101.11	direct	-3000 May 10 j 15:12		
conjunction	-3006 Mar 12 j 02:48	27°≈03'18	-1°-18'-44		-3000 Aug 09 j 19:39	0° Т р	
minimum elong	-3006 Mar 12 j 02:49	27°≈03'19	1°18'48	evening set	-3000 Sep 14 j 00:07	7° Mp 27'51	
max. Earth dist.	-3006 Mar 14 j 03:03	27°≈31'43	6.03537 AU	max. Earth dist.	-3000 Sep 24 j 18:16	9° ™ 51'57	6.33640 AU
	-3006 Mar 24 j 15:33	0° ∀					
morning rise	-3006 Mar 25 j 18:41	0°) 15′51		conjunction	-3000 Sep 26 j 13:57	-	
retrograde	-3006 Aug 03 j 07:53	20° 升 10′49		minimum elong	-3000 Sep 26 j 13:58	10° Mp 16'26	1°15'36
opposition	-3006 Oct 01 j 20:53	15° ∺ 05'39	-1°-47'-22	morning rise	-3000 Oct 09 j 01:53	13° m 04'17	
min. Earth dist.	1 3	15° ℋ 15'46	4.07759 AU		-2999 Jan 18 j 15:17	0∘ ⊽	
direct	,	10°) 07′10		retrograde	-2999 Feb 08 j 19:55	0° ჲ 41'40	
evening set	-3005 Apr 04 j 11:49	29° ∺ 10'44			-2999 Mar 02 j 02:28	30°R Mp	

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -2999 in astronomical counting style is the year 3000 BCE in historical counting style. -2999 Apr 10 j 20:26 25° m 49'39 1°35'57 opposition -2994 Oct 06 i 18:47 20° ★ 11'06 -1°-42'-30 opposition -2999 Apr 12 j 02:53 25° m 39'58 4.28784 AU min. Earth dist. -2994 Oct 05 j 12:20 20°\(\mathbf{X}\)21'30 4.08702 AU min. Earth dist. -2999 Jun 11 j 21:01 20° m 51'48 -2994 Dec 04 j 04:16 15° ¥ 12'08 direct direct $0^{\circ}\Upsilon$ -2999 Sep 02 j 21:58 -2993 Mar 21 j 20:12 0∘**⊽** -2999 Oct 15 j 08:03 -2993 Apr 09 j 16:03 4° Y 13'23 evening set 9°**£**05'14 evening set max. Earth dist. -2999 Oct 26 j 08:57 11°**2**36'57 6.23068 AU 7°**Υ**22'15 0°-54'-13 conjunction -2993 Apr 23 j 10:29 -2993 Apr 23 j 10:32 7°**Υ**22'18 conjunction -2999 Oct 27 j 21:33 11°**2**57'59 0°49'51 minimum elong 0°54'14 -2993 Apr 25 j 04:12 7°**Υ**46'09 minimum elong -2999 Oct 27 j 21:36 11°**£**58'00 0°49'51 max. Earth dist. 6.14212 AU morning rise -2999 Nov 09 j 11:06 14° **2**50'55 morning rise -2993 May 07 j 05:35 10°**Υ**31'13 -2998 Jan 26 j 17:06 0° M retrograde -2993 Sep 11 j 00:24 29°**Y**21'29 -2993 Nov 09 j 10:24 24°**Υ**18'33 retrograde -2998 Mar 15 j 08:52 3°M20'43 opposition 0°-51'-44 -2998 May 03 j 00:06 30°R € min. Earth dist. -2993 Nov 08 j 14:13 24°**Υ**25'23 4.20199 AU opposition -2998 May 15 j 09:34 28°**£**26'27 0°44'18 direct -2992 Jan 07 j 23:58 19°**Y**16'44 min. Earth dist. -2998 May 16 j 05:43 28°**♀**19'59 4.17050 AU -2992 Apr 07 j 10:53 0°8 direct -2998 Jul 15 j 06:05 23°**2**31'19 evening set -2992 May 14 j 04:48 7°**8**49'03 -2998 Sep 20 j 08:27 0°M evening set -2998 Nov 16 j 21:51 12°M10'58 conjunction -2992 May 27 j 22:01 10°**8**52'19 0°-13'-18 -2998 Nov 28 j 21:45 15°M minimum elong -2992 May 27 j 22:03 10° 852'20 0°13'16 behind sun begin -2992 May 27 j 17:25 10°849'46 conjunction -2998 Nov 29 j 15:25 15°M 10'23 0°07'21 behind sun end -2992 May 28 j 02:41 10°854'54 minimum elong -2998 Nov 29 i 15:25 15°M 10'24 0°07'17 max. Earth dist. -2992 May 28 j 19:18 11°**8**04'11 6.26152 AU behind sun begin -2998 Nov 29 i 08:02 15°ML06'04 morning rise -2992 Jun 10 j 13:44 13°**8**54'39 behind sun end -2998 Nov 29 j 22:48 15°M14'43 -2992 Jun 15 j 12:14 15°8 max. Earth dist. -2998 Nov 28 j 23:29 15°M 01'01 6.11275 AU -2992 Sep 08 j 11:55 $0^{\circ}II$ -2998 Dec 12 j 10:24 18°M 10'50 -2992 Sep 23 j 03:45 1°**Ⅱ**11'19 morning rise asc node -2997 Jan 29 j 22:09 28°M 46'35 -2992 Oct 11 j 21:07 desc. node retrograde 1°**Ⅱ**45'33 -2997 Feb 05 j 09:06 -2992 Nov 14 j 02:52 30°R8 0°×7 7°**х** 40′13 -2992 Dec 10 j 12:12 26°846'23 0°12'50 retrograde -2997 Apr 20 j 17:39 opposition opposition -2997 Jun 20 j 12:53 -2992 Dec 10 j 06:22 26°848'20 4.31477 AU 2° × 42'29 0°-25'-18 min. Earth dist. 2°**∡**741'53 4.06123 AU -2997 Jun 20 j 14:44 -2991 Feb 09 j 08:34 21°**8**43'00 min. Earth dist. direct -2997 Jul 12 j 13:36 30°RML -2991 Apr 29 j 18:23 Π $^{\circ}0$ -2991 Jun 17 j 00:15 direct -2997 Aug 18 j 23:31 27°M-49'12 9°**Ⅱ**49'30 evening set -2997 Sep 24 j 20:19 0° **尽** -2991 Jun 30 j 10:45 12°**II**45'57 0°30'22 evening set -2997 Dec 21 j 08:11 16° ₹ 55'45 conjunction -2991 Jun 30 j 10:43 12°**II**45'56 0°30'27 minimum elong -2996 Jan 03 j 07:52 20°**尽** 01'50 0°-39'-15 -2991 Jun 30 j 05:06 12°**I**42'52 6.35935 AU conjunction max. Earth dist. minimum elong -2996 Jan 03 j 07:49 20°**尽** 01'48 0°39'23 morning rise -2991 Jul 13 j 18:26 15°**II**40'53 max. Earth dist. -2996 Jan 03 j 18:15 20°**х** 08'03 6.02220 AU -2991 Sep 29 j 10:25 0ಂತಾ morning rise -2996 Jan 16 j 10:36 23°**尽** 09'37 retrograde -2991 Nov 11 j 18:24 2°951'07 -2996 Feb 15 j 03:53 0°る -2991 Dec 25 j 07:59 30°RⅡ -2996 May 27 j 05:36 13°**♂**24'53 -2990 Jan 10 j 16:31 27°**I**55'48 1°10'58 retrograde opposition -2996 Jul 26 j 13:49 8°**ට**23'08 -1°-28'-23 -2990 Jan 11 j 04:08 27°**I**52'00 4.39114 AU opposition min. Earth dist. min. Earth dist. -2996 Jul 25 j 20:15 8°る29'00 3.99936 AU -2990 Mar 13 j 17:15 22°**Ⅲ**52'17 direct -2996 Sep 22 j 21:46 3°る29'40 -2990 May 26 j 11:06 direct -2995 Jan 25 j 13:55 22°**⋜**53'17 evening set evening set -2990 Jul 19 i 05:58 10°542'52 max. Earth dist. -2990 Jul 31 j 03:29 13°5518'20 6.40773 AU conjunction -2995 Feb 07 i 21:12 26° ₹03'52 -1°-12'-10 minimum elong -2995 Feb 07 j 21:10 26°る03'51 1°12'15 conjunction -2990 Aug 01 i 07:26 13°533'36 1°04'11 max. Earth dist. -2995 Feb 09 j 10:43 26°る26'18 5.99394 AU -2990 Aug 01 j 07:23 13°533'34 1°04'16 minimum elong -2995 Feb 21 j 07:38 29°る16'09 -2990 Aug 14 j 05:38 16°522'43 morning rise morning rise -2995 Feb 24 j 09:45 -2990 Oct 26 j 07:27 0°≈≈ $0^{\circ}\Omega$ -2995 May 08 j 13:09 15°**≈** -2990 Dec 12 j 08:56 retrograde 3°**Ω**18′13 retrograde -2995 Jul 03 j 12:53 19°≈40'31 -2989 Jan 29 j 07:03 30° R € -2995 Aug 29 j 09:16 15°R≈ opposition -2989 Feb 10 j 18:12 28°\$25'36 1°48'14 min. Earth dist. -2995 Aug 31 j 03:36 14°≈45'39 4.00951 AU min. Earth dist. -2989 Feb 11 j 18:46 28°\$17'41 4.41013 AU opposition -2995 Sep 01 j 08:25 14°≈35'52 -1°-58'-4 direct -2989 Apr 14 j 09:14 23°523'11 -2995 Oct 29 j 07:02 9°**≈**40′10 -2989 Jun 24 j 06:31 direct 0 $^{\circ}$ Ω -2989 Aug 19 j 11:04 11° Ω 10'36 -2995 Dec 26 j 19:09 15°≈ evening set -2989 Aug 30 j 11:35 13°**Ω**35'51 6.39466 AU evening set -2994 Mar 03 j 19:01 29°≈01'52 max. Earth dist. -2994 Mar 07 j 22:16 0°**)**€ conjunction -2989 Sep 01 j 04:40 13°Ω58'30 1°19'52 conjunction -2994 Mar 17 j 09:16 2°**升**13'25 -1°-17'-31 minimum elong -2989 Sep 01 j 04:39 13°Ω58'30 1°19'56 minimum elong -2994 Mar 17 j 09:18 2°**升**13'26 1°17'34 -2989 Sep 05 j 20:11 15°**Ω** max. Earth dist. -2994 Mar 19 j 10:00 2°**)**(42'04 6.04011 AU morning rise -2989 Sep 13 j 19:27 16°**Ω**45'09 -2994 Mar 31 j 02:10 5°**∺**26'08 -2989 Nov 22 j 06:35 morning rise 0°m -2994 Aug 08 j 05:59 25°**升** 16'13 -2988 Jan 12 j 17:42 3° m 52'33 retrograde retrograde

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 37

Attention, astronom	ical year style is used: Th	ne vear -2988	in astronomical co	unting style is the year	2989 BCE in historical c	counting style.	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-2988 Mar 05 j 17:38	-		opposition	-2983 Sep 06 j 11:38		
opposition	-2988 Mar 13 j 12:14	29° Ω 01′04	1°55'54	••	-2983 Oct 26 j 16:40		
min. Earth dist.	-2988 Mar 14 j 20:26	28° Ω 50'49	4.36666 AU	direct	-2983 Nov 03 j 09:56	14° ≈ 53'45	
direct	-2988 May 15 j 03:05	24° Ω 00'49			-2983 Nov 11 j 04:32	15° ≈	
	-2988 Jul 20 j 15:49	0° ™			-2982 Feb 18 j 17:41	0° ∀	
evening set	-2988 Sep 18 j 09:07	11° m 57'41		evening set	-2982 Mar 09 j 01:29	4°) (12′34	
max. Earth dist.	-2988 Sep 29 j 01:28	14° m 21'18	6.32335 AU				
				conjunction	-2982 Mar 22 j 16:31	7°) €23'48	-1°-15'-46
conjunction	-2988 Sep 30 j 22:29	14° Mp 46'37	1°13'13	minimum elong	-2982 Mar 22 j 16:34	7°) €23'50	1°15'49
minimum elong	-2988 Sep 30 j 22:31	14° To 46'38	1°13'15	max. Earth dist.	-2982 Mar 24 j 17:37	7°) 52'33	6.05465 AU
morning rise	-2988 Oct 13 j 10:31	17° m/35'00		morning rise	-2982 Apr 05 j 09:51	10° ¥ 36'03 0° Υ	
retrograde	-2988 Dec 14 j 12:07 -2987 Feb 13 j 14:29	0° ჲ 5° ჲ 18'54		retrograde	-2982 Jul 30 j 21:07 -2982 Aug 13 j 03:44	0° Υ 17'30	
opposition	-2987 Apr 15 j 14:47	0° £ 26'37	1°30'20	retrograde	-2982 Aug 15 j 05:44 -2982 Aug 26 j 07:07		
min. Earth dist.	-2987 Apr 16 j 20:40	0° ⊆ 17'06	4.27159 AU	min. Earth dist.	-2982 Oct 10 j 10:27		4.10493 AU
mm. Burur u.ov.	-2987 Apr 19 j 02:28	30°R.M)	2,10,110	opposition	-2982 Oct 11 j 15:16		-1°-36'-58
direct	-2987 Jun 16 j 12:11	25° m) 29'07		direct	-2982 Dec 09 j 05:28	20°) 13′06	
	-2987 Aug 11 j 16:20	0∘ <u>⊽</u>			-2981 Mar 03 j 06:58	0° Υ	
evening set	-2987 Oct 19 j 20:05	13° ≏ 46'15		evening set	-2981 Apr 14 j 17:54	9° Ƴ 09'16	
max. Earth dist.	-2987 Oct 31 j 00:29	16° ≏ 20'30	6.21281 AU				
				conjunction	-2981 Apr 28 j 12:31		0°-49'-11
conjunction	-2987 Nov 01 j 10:08	16° ≏ 39'55	0°44'38	minimum elong	-2981 Apr 28 j 12:34		0°49'10
minimum elong	-2987 Nov 01 j 10:11	16° ≏ 39'56	0°44'36	max. Earth dist.	-2981 Apr 30 j 04:49		6.16189 AU
morning rise	-2987 Nov 14 j 00:07	19° ≏ 33'51		morning rise	-2981 May 12 j 07:22		
	-2986 Jan 01 j 21:09	0° ™			-2981 Jul 25 j 11:52	0°8	
retrograde	-2986 Mar 20 j 09:43	8°M12'27	000 510 4	retrograde	-2981 Sep 15 j 12:26	4° 8 05'34	
opposition	-2986 May 20 j 10:09	3°M17'48	0°35'04	•,•	-2981 Nov 06 j 22:45		00 421 50
min. Earth dist.	-2986 May 21 j 04:07	3°M12'02 30°R ≏	4.15229 AU	opposition min. Earth dist.	-2981 Nov 13 j 23:41	29° Υ 03'08 29° Υ 09'34	0°-42'-59 4.22162 AU
direct	-2986 Jun 17 j 14:45	28° £ 23'05			-2981 Nov 13 j 04:40 -2980 Jan 12 j 16:43		4.22162 AU
direct	-2986 Jul 20 j 01:36 -2986 Aug 21 j 05:00	0°M		direct	-2980 Jan 12 j 16.45 -2980 Mar 17 j 15:46	0° 8	
	-2986 Nov 12 j 13:30			evening set	-2980 May 19 j 00:02		
evening set	-2986 Nov 21 j 16:17			evening sec	-2980 May 30 j 09:20		
	•						
conjunction	-2986 Dec 04 j 10:28	20° ™ 07'45	0°00'34	conjunction	-2980 Jun 01 j 16:26	15° 8 30'39	0°-7'-5
minimum elong	-2986 Dec 04 j 10:28	20° ™ 07'45	0°00'30	minimum elong	-2980 Jun 01 j 16:27		0°07'02
minimum elong behind sun begin	-2986 Dec 04 j 10:28 -2986 Dec 04 j 02:25	20°M07'45 20°M03'01	0°00'30	minimum elong behind sun begin	-2980 Jun 01 j 08:48	15° 8 26'25	0°07'02
behind sun begin behind sun end	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31	20°M03'01 20°M12'29		behind sun begin behind sun end	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06	15° 8 26'25 15° 8 34'53	
behind sun begin behind sun end max. Earth dist.	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55	20°M03'01 20°M12'29 19°M59'45	0°00'30 6.09592 AU	behind sun begin behind sun end max. Earth dist.	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29	15° 8 26'25 15° 8 34'53 15° 8 39'34	0°07'02 6.27941 AU
behind sun begin behind sun end max. Earth dist. desc. node	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34	20°ML03'01 20°ML12'29 19°ML59'45 21°ML12'48		behind sun begin behind sun end max. Earth dist. morning rise	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19	15°826'25 15°834'53 15°839'34 18°831'51	
behind sun begin behind sun end max. Earth dist.	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24		behind sun begin behind sun end max. Earth dist.	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51	15°\dagger 26'25 15°\dagger 34'53 15°\dagger 39'34 18°\dagger 31'51 28°\dagger 37'26	
behind sun begin behind sun end max. Earth dist. desc. node morning rise	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26	20°M03'01 20°M12'29 19°M59'45 21°M12'48 23°M09'24 0° 🗷		behind sun begin behind sun end max. Earth dist. morning rise asc. node	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55	15°\days26'25 15°\days34'53 15°\days39'34 18°\days'51 28°\days'26 0°\pi	
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18	20°M03'01 20°M12'29 19°M59'45 21°M12'48 23°M09'24 0° 🗷 12° 🗖 47'18	6.09592 AU	behind sun begin behind sun end max. Earth dist. morning rise asc. node	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02	15°\26'25 15°\34'53 15°\39'34 18°\33'51 28°\37'26 0°\II 6°\II15'14	6.27941 AU
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0° × 12° × 47'18 7° × 49'01	6.09592 AU 0°-35'-21	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56	15°826'25 15°834'53 15°839'34 18°831'51 28°837'26 0°Ⅲ 6°Ⅲ15'14 1°Ⅲ16'39	6.27941 AU 0°21'41
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist.	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0°\$\tilde{x}\$ 12°\$\tilde{x}\$47'18 7°\$\tilde{x}\$49'01 7°\$\tilde{x}\$49'29	6.09592 AU	behind sun begin behind sun end max. Earth dist. morning rise asc. node	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 14 j 18:45	15°\26'25 15°\34'53 15°\39'34 18°\31'51 28°\37'26 0°\II 6°\II15'14 1°\II16'39 1°\II17'23	6.27941 AU
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0° x¹ 12° x¹47'18 7° x¹49'01 7° x²49'29 2° x³55'52	6.09592 AU 0°-35'-21	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist.	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 14 j 18:45 -2980 Dec 24 j 13:50	15°826'25 15°834'53 15°839'34 18°831'51 28°837'26 0°用 6°用15'14 1°用16'39 1°用17'23 30°88	6.27941 AU 0°21'41
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist.	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0°\$\tilde{x}\$ 12°\$\tilde{x}\$47'18 7°\$\tilde{x}\$49'01 7°\$\tilde{x}\$49'29 2°\$\tilde{x}\$55'52	6.09592 AU 0°-35'-21	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 14 j 18:45	15°826'25 15°834'53 15°839'34 18°831'51 28°837'26 0°用 6°用15'14 1°用16'39 1°用17'23 30°88	6.27941 AU 0°21'41
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0°\$\stackstackstackstackstackstackstackstack	6.09592 AU 0°-35'-21	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist.	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 14 j 18:45 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36	15°826'25 15°839'34 18°831'51 28°837'26 0°П 6°П15'14 1°П16'39 1°П17'23 30°88 26°813'09 0°П	6.27941 AU 0°21'41
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32 -2985 Dec 26 j 09:41	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0° 🛪 12° 🛪 47'18 7° 🛪 49'01 7° 🛪 49'29 2° 🛪 55'52 22° 🛪 06'17	6.09592 AU 0°-35'-21 4.04747 AU	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 18:45 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13	15°826'25 15°839'34 18°831'51 28°837'26 0°П 6°П15'14 1°П16'39 1°П17'23 30°88 26°813'09 0°П	6.27941 AU 0°21'41
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:34 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0° ×7 12° ×747'18 7° ×749'01 7° ×749'29 2° ×755'52 22° ×706'17 25° ×713'16 25° ×713'14 25° ×722'55	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jun 21 j 13:11	15°826'25 15°834'53 15°839'34 18°831'51 28°837'26 0°Ⅲ 6°Ⅲ15'14 1°Ⅲ16'39 1°Ⅲ17'23 30°88 26°813'09 0°Ⅲ 14°Ⅲ16'29	6.27941 AU 0°21'41 4.32942 AU 0°35'52
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:34 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42 -2984 Jan 21 j 14:16	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0° × 12° × 47'18 7° × 49'01 7° × 49'29 2° × 55'52 22° × 13'16 25° × 13'16 25° × 13'14 25° × 22'55 28° × 22'55	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11 0°45'18	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jun 21 j 13:11 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:35	15°826'25 15°834'53 15°839'34 18°831'51 28°837'26 0°Ⅲ 6°Ⅲ15'14 1°Ⅲ16'39 1°Ⅲ17'23 30°88 26°813'09 0°Ⅲ 14°Ⅲ16'29	6.27941 AU 0°21'41 4.32942 AU 0°35'52 0°35'58
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:34 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42 -2984 Jan 21 j 14:16 -2984 Jan 28 j 12:10	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0° 🗷 12° 🗷 47'18 7° 🗷 49'01 7° 🗷 49'01 7° 🗷 49'29 2° 🗷 55'52 22° 🗷 06'17 25° 🗷 13'16 25° 🗷 13'14 25° 🗷 22'55 28° 🗷 22'55	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11 0°45'18	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 14 j 18:45 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jun 21 j 13:11 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:35 -2979 Jul 04 j 13:45	15°\26'25 15°\34'53 15°\39'34 18°\31'51 28°\37'26 0°\1\6'\115'14 1°\116'39 1°\117'23 30°\8\26°\513'09 0°\1\14°\116'29 17°\112'04 17°\112'04 17°\112'02 17°\107'12	6.27941 AU 0°21'41 4.32942 AU 0°35'52
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:31 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42 -2984 Jan 21 j 14:16 -2984 Jan 28 j 12:10 -2984 Jun 01 j 15:36	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0° 🗷 12° 🗷 47'18 7° 🗷 49'01 7° 🗷 49'01 25° 🗷 13'16 25° 🗷 13'16 25° 🗷 13'14 25° 🗷 22'55 28° 🗷 21'54 0° 📆 18° 📆 41'19	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11 0°45'18 6.01307 AU	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 14 j 18:45 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:35 -2979 Jul 04 j 3:45 -2979 Jul 04 j 3:45 -2979 Jul 18 j 04:55	15°\26'25 15°\34'53 15°\39'34 18°\31'51 28°\37'26 0°\1\6'\115'14 1°\116'39 1°\117'23 30°\8\26'\813'09 0°\1\14'\116'29 17°\112'04 17°\112'02 17°\107'12 20°\106'02	6.27941 AU 0°21'41 4.32942 AU 0°35'52 0°35'58
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:34 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42 -2984 Jan 21 j 14:16 -2984 Jan 28 j 12:10 -2984 Jun 01 j 15:36 -2984 Jul 31 j 20:44	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0° 🛪 12° 🛪 47'18 7° 🛪 49'01 7° 🛪 49'29 2° 🛪 55'52 22° 🛪 06'17 25° 🛪 13'16 25° 🛪 13'14 25° 🛪 22'55 28° 🛪 21'54 0° 🛪 18° 🛪 41'19 13° 🛪 39'07	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11 0°45'18 6.01307 AU	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 14 j 18:45 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:35 -2979 Jul 04 j 3:45 -2979 Jul 04 j 3:45 -2979 Jul 04 j 3:45 -2979 Jul 18 j 04:55 -2979 Sep 05 j 03:24	15°826'25 15°834'53 15°839'34 18°831'51 28°837'26 0°II 6°II15'14 1°II16'39 1°II17'23 30°R8 26°813'09 0°II 14°II16'29 17°II2'04 17°II2'04 17°II2'02 17°II07'12 20°II06'02 0°S	6.27941 AU 0°21'41 4.32942 AU 0°35'52 0°35'58
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:34 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42 -2984 Jan 21 j 14:16 -2984 Jan 28 j 12:10 -2984 Jun 01 j 15:36 -2984 Jul 31 j 20:44 -2984 Jul 31 j 01:17	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0° 🛪 12° 🛪 47'18 7° 🛪 49'01 7° 🛪 49'29 2° 🛪 755'52 22° 🛪 106'17 25° 🛪 13'14 25° 🛪 13'14 25° 🛪 22'55 28° 🛪 21'54 0° 🛪 18° 🛪 41'19 13° 🛪 39'07 13° 🛪 45'37	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11 0°45'18 6.01307 AU	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 14 j 18:45 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:35 -2979 Jul 04 j 3:45 -2979 Jul 04 j 3:45 -2979 Jul 18 j 04:55 -2979 Sep 05 j 03:24 -2979 Nov 15 j 23:01	15°\26'25 15°\39'34 18°\31'51 28°\37'26 0°\\$\16'\\$\15'\\$\4 1°\\$\16'\39\\10'\\$\17'\\$\23 30°\\$\26'\\$\13'\09\\0°\\$\\$\14'\\$\\$\16'\29\\\17'\\$\\$\12'\02\\17'\\$\\$\12'\02\\17'\\$\\$\10'\12\\00'\\$\\$\\$\7'\\$\\$\\$\12'\5\\$\17'\\$\\$\10'\12\\00'\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\	6.27941 AU 0°21'41 4.32942 AU 0°35'52 0°35'58 6.36954 AU
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:34 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42 -2984 Jan 21 j 14:16 -2984 Jan 28 j 12:10 -2984 Jun 01 j 15:36 -2984 Jul 31 j 20:44 -2984 Jul 31 j 01:17 -2984 Sep 28 j 02:13	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0°\$\tilde{x}\$ 12°\$\tilde{x}\$47'18 7°\$\tilde{x}\$49'01 7°\$\tilde{x}\$49'29 2°\$\tilde{x}\$55'52 22°\$\tilde{x}\$13'16 25°\$\tilde{x}\$13'14 25°\$\tilde{x}\$22'55 28°\$\tilde{x}\$21'54 0°\$\tilde{x}\$13'8"\$\tilde{x}\$41'19 13°\$\tilde{x}\$45'37 8°\$\tilde{x}\$45'32	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11 0°45'18 6.01307 AU	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 18:45 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:37 -2979 Jul 04 j 3:45 -2979 Jul 18 j 04:55 -2979 Sep 05 j 03:24 -2979 Nov 15 j 23:01 -2978 Jan 14 j 23:25	15°\26'25 15°\34'53 15°\33'34 18°\33'51 28°\37'26 0°\II 6°\II15'14 1°\II16'39 1°\II17'23 30°\8\26'\8\13'09 0°\II 14°\II16'29 17°\II12'04 17°\II12'04 17°\II12'02 17°\II07'12 20°\II06'02 0°\II 20°\II05'59	6.27941 AU 0°21'41 4.32942 AU 0°35'52 0°35'58 6.36954 AU
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:34 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42 -2984 Jan 21 j 14:16 -2984 Jan 28 j 12:10 -2984 Jun 01 j 15:36 -2984 Jul 31 j 20:44 -2984 Jul 31 j 01:17 -2984 Sep 28 j 02:13 -2983 Jan 30 j 20:25	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0° 🛪 12° 🛪 47'18 7° 🛪 49'01 7° 🛪 49'29 2° 🛪 55'52 22° 🛪 06'17 25° 🛪 13'16 25° 🛪 13'14 25° 🛪 22'55 28° 🛪 21'54 0° 🛪 18° 🛪 41'19 13° 🛪 39'07 13° 🛪 45'37 8° 🛪 45'32 28° 🛪 09'57	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11 0°45'18 6.01307 AU	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 12:56 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:35 -2979 Jul 04 j 13:45 -2979 Jul 04 j 13:45 -2979 Jul 18 j 04:55 -2979 Sep 05 j 03:24 -2979 Nov 15 j 23:01 -2978 Jan 14 j 23:25 -2978 Jan 15 j 12:41	15°\26'25 15°\34'53 15°\33'54 18°\33'51 28°\37'26 0°\II 6°\II15'14 1°\II16'39 1°\II17'23 30°\8\26'\8\13'09 0°\II 14°\II16'29 17°\II12'04 17°\II12'02 17°\II07'12 20°\II06'02 0°\G 7°\GI2'51 2°\GI7'59 2°\GI3'39	6.27941 AU 0°21'41 4.32942 AU 0°35'52 0°35'58 6.36954 AU
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:34 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42 -2984 Jan 21 j 14:16 -2984 Jan 28 j 12:10 -2984 Jun 01 j 15:36 -2984 Jul 31 j 20:44 -2984 Jul 31 j 01:17 -2984 Sep 28 j 02:13	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0°\$\tilde{x}\$ 12°\$\tilde{x}\$47'18 7°\$\tilde{x}\$49'01 7°\$\tilde{x}\$49'29 2°\$\tilde{x}\$55'52 22°\$\tilde{x}\$13'16 25°\$\tilde{x}\$13'14 25°\$\tilde{x}\$22'55 28°\$\tilde{x}\$21'54 0°\$\tilde{x}\$13'8"\$\tilde{x}\$41'19 13°\$\tilde{x}\$45'37 8°\$\tilde{x}\$45'32	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11 0°45'18 6.01307 AU	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:35 -2979 Jul 04 j 13:45 -2979 Jul 04 j 13:45 -2979 Jul 18 j 04:55 -2979 Sep 05 j 03:24 -2979 Nov 15 j 23:01 -2978 Jan 14 j 23:25 -2978 Jan 15 j 12:41 -2978 Feb 02 j 07:22	15°826'25 15°834'53 15°839'34 18°831'51 28°837'26 0°Ⅲ 6°Ⅲ15'14 1°Ⅲ16'39 1°Ⅲ17'23 30°88 26°813'09 0°Ⅲ 14°Ⅲ16'29 17°Ⅲ12'04 17°Ⅲ12'04 17°Ⅲ12'02 17°Ⅲ07'12 20°Ⅲ06'02 0°⑤ 7°⑤12'51 2°⑤17'59 2°⑤13'39 30°8Щ	6.27941 AU 0°21'41 4.32942 AU 0°35'52 0°35'58 6.36954 AU
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:34 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42 -2984 Jan 21 j 14:16 -2984 Jan 28 j 12:10 -2984 Jun 01 j 15:36 -2984 Jul 31 j 01:17 -2984 Sep 28 j 02:13 -2983 Jan 30 j 20:25 -2983 Feb 07 j 13:13	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0° ⊀ 12° ₹47'18 7° ₹49'01 7° ₹49'01 7° ₹49'29 2° ₹55'52 22° ₹06'17 25° ₹13'16 25° ₹13'16 25° ₹22'55 28° ₹21'54 0° ₹ 18° ₹41'19 13° ₹39'07 13° ₹45'32 28° ₹09'57 0° ≈	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11 0°45'18 6.01307 AU	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 12:56 -2980 Dec 24 j 13:50 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:35 -2979 Jul 04 j 3:45 -2979 Jul 04 j 3:45 -2979 Jul 18 j 04:55 -2979 Sep 05 j 03:24 -2979 Nov 15 j 23:01 -2978 Jan 14 j 23:25 -2978 Jan 15 j 12:41 -2978 Feb 02 j 07:22 -2978 Mar 18 j 01:40	15°826'25 15°834'53 15°839'34 18°831'51 28°837'26 0°Ⅲ 6°Ⅲ15'14 1°Ⅲ16'39 1°Ⅲ17'23 30°88 26°813'09 0°Ⅲ 14°Ⅲ16'29 17°Ⅲ12'04 17°Ⅲ12'04 17°Ⅲ12'02 17°Ⅲ07'12 20°Ⅲ06'02 0°⑤ 7°⑤12'51 2°⑤17'59 2°⑤13'39 30°8Щ	6.27941 AU 0°21'41 4.32942 AU 0°35'52 0°35'58 6.36954 AU
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:34 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42 -2984 Jan 21 j 14:16 -2984 Jan 28 j 12:10 -2984 Jun 01 j 15:36 -2984 Jul 31 j 20:44 -2984 Jul 31 j 01:17 -2984 Sep 28 j 02:13 -2983 Jan 30 j 20:25	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0° 🛪 12° 🛪 47'18 7° 🛪 49'01 7° 🛪 49'29 2° 🛪 55'52 22° 🛪 06'17 25° 🛪 13'16 25° 🛪 13'14 25° 🛪 22'55 28° 🛪 21'54 0° 🛪 18° 🛪 41'19 13° 🛪 39'07 13° 🛪 45'37 8° 🛪 45'32 28° 🛪 09'57	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11 0°45'18 6.01307 AU -1°-35'-9 3.99634 AU	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:35 -2979 Jul 04 j 13:45 -2979 Jul 04 j 13:45 -2979 Jul 18 j 04:55 -2979 Sep 05 j 03:24 -2979 Nov 15 j 23:01 -2978 Jan 14 j 23:25 -2978 Jan 15 j 12:41 -2978 Feb 02 j 07:22	15°\26'25 15°\34'53 15°\33'34 18°\33'51 28°\37'26 0°\II 6°\II15'14 1°\II16'39 1°\II17'23 30°\8\26'\8\13'09 0°\II 14°\II16'29 17°\II12'04 17°\II12'04 17°\II12'02 17°\II07'12 20°\II06'02 0°\Gamma 7°\Gamma12'51 2°\Gamma13'39 30°\R\II 27°\II14'33 0°\Gamma	6.27941 AU 0°21'41 4.32942 AU 0°35'52 0°35'58 6.36954 AU
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Jun 25 j 16:54 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:34 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42 -2984 Jan 21 j 14:16 -2984 Jan 28 j 12:10 -2984 Jun 01 j 15:36 -2984 Jul 31 j 01:17 -2984 Sep 28 j 02:13 -2983 Feb 07 j 13:13	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0° ✓ 12° ✓ 47'18 7° ✓ 49'01 7° ✓ 49'29 2° ✓ 55'52 22° ✓ 13'16 25° ✓ 13'16 25° ✓ 13'14 25° ✓ 22'55 28° ✓ 41'19 13° ♂ 39'07 13° ♂ 45'32 28° ♂ 09'57 0° ∞ 1° ≈ 20'49	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11 0°45'18 6.01307 AU -1°-35'-9 3.99634 AU	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 14 j 13:50 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jun 21 j 13:11 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:35 -2979 Jul 04 j 13:45 -2979 Jul 04 j 22:35 -2979 Jul 18 j 04:55 -2979 Sep 05 j 03:24 -2979 Nov 15 j 23:01 -2978 Jan 14 j 23:25 -2978 Jan 15 j 12:41 -2978 Feb 02 j 07:22 -2978 Mar 18 j 01:40 -2978 May 01 j 04:03	15°\26'25 15°\34'53 15°\33'34 18°\33'51 28°\37'26 0°\II 6°\II15'14 1°\II16'39 1°\II17'23 30°\8\26'\8\13'09 0°\II 14°\II16'29 17°\II12'04 17°\II12'04 17°\II12'02 17°\II07'12 20°\II06'02 0°\Gamma 7°\Gamma12'51 2°\Gamma13'39 30°\R\II 27°\II14'33 0°\Gamma	6.27941 AU 0°21'41 4.32942 AU 0°35'52 0°35'58 6.36954 AU
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Jun 25 j 16:54 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:34 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42 -2984 Jan 21 j 14:16 -2984 Jan 28 j 12:10 -2984 Jan 28 j 12:10 -2984 Jun 01 j 15:36 -2984 Jul 31 j 01:17 -2984 Sep 28 j 02:13 -2983 Feb 07 j 13:13 -2983 Feb 13 j 04:35 -2983 Feb 13 j 04:35	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0° 🖈 12° 🖈 47'18 7° 🛪 49'01 7° 🛪 49'01 7° 🛪 49'29 2° 🛪 55'52 22° 🛪 06'17 25° 🛪 13'16 25° 🛪 13'16 25° 🛪 13'14 25° 🛪 22'55 28° 🛪 21'54 0° 🛪 18° 🛪 41'19 13° 🛪 39'07 13° 🛪 45'37 8° 🛪 45'32 28° 🛪 09'57 0° ≈ 1° ≈ 20'49 1° ≈ 20'48	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11 0°45'18 6.01307 AU -1°-35'-9 3.99634 AU -1°-14'-46 1°14'52	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 14 j 13:45 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jun 21 j 13:11 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:35 -2979 Jul 04 j 13:45 -2979 Jul 04 j 3:45 -2979 Jul 18 j 04:55 -2979 Sep 05 j 03:24 -2979 Nov 15 j 23:01 -2978 Jan 14 j 23:25 -2978 Jan 15 j 12:41 -2978 Feb 02 j 07:22 -2978 Mar 18 j 01:40 -2978 May 01 j 04:03 -2978 Jul 23 j 15:07	15°\26'25 15°\34'53 15°\339'34 18°\331'51 28°\337'26 0°\II 6°\II15'14 1°\II16'39 1°\II17'23 30°\8\26'\8\13'09 0°\II 14°\II16'29 17°\II12'04 17°\II12'04 17°\II12'02 17°\II07'12 20°\II06'02 0°\S 7°\S12'51 2°\S17'59 2°\S13'39 30'\R\II 27°\II14'33 0°\S 15°\S04'32	6.27941 AU 0°21'41 4.32942 AU 0°35'52 0°35'58 6.36954 AU 1°17'37 4.39650 AU
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:34 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42 -2984 Jan 21 j 14:16 -2984 Jan 28 j 12:10 -2984 Jun 01 j 15:36 -2984 Jul 31 j 01:17 -2984 Sep 28 j 02:13 -2983 Feb 07 j 13:13 -2983 Feb 13 j 04:35 -2983 Feb 13 j 04:33 -2983 Feb 13 j 04:33 -2983 Feb 13 j 04:33	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0° 🖈 12° 🖈 47'18 7° 🛪 49'01 7° 🛪 49'01 7° 🛪 49'29 2° 🛪 55'52 22° 🛪 06'17 25° 🛪 13'16 25° 🛪 13'14 25° 🛪 22'55 28° 🛪 21'54 0° 🛪 18° 🛪 41'19 13° 🛪 39'07 13° 🛪 45'37 8° 🛪 45'32 28° 🛪 09'57 0° 🖘 1° ≈ 20'49 1° ≈ 20'48 1° ≈ 44'34	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11 0°45'18 6.01307 AU -1°-35'-9 3.99634 AU -1°-14'-46 1°14'52	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 14 j 13:45 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jun 21 j 13:11 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:35 -2979 Jul 04 j 13:45 -2979 Jul 04 j 3:45 -2979 Jul 18 j 04:55 -2979 Sep 05 j 03:24 -2979 Nov 15 j 23:01 -2978 Jan 14 j 23:25 -2978 Jan 15 j 12:41 -2978 Feb 02 j 07:22 -2978 Mar 18 j 01:40 -2978 May 01 j 04:03 -2978 Jul 23 j 15:07	15°\26'25 15°\34'53 15°\339'34 18°\331'51 28°\337'26 0°\1\6'\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	6.27941 AU 0°21'41 4.32942 AU 0°35'52 0°35'58 6.36954 AU 1°17'37 4.39650 AU
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:31 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42 -2984 Jan 21 j 14:16 -2984 Jan 28 j 12:10 -2984 Jun 01 j 15:36 -2984 Jul 31 j 01:17 -2984 Sep 28 j 02:13 -2983 Feb 13 j 04:35 -2983 Feb 13 j 04:35 -2983 Feb 13 j 04:33 -2983 Feb 14 j 20:23 -2983 Feb 26 j 16:12 -2983 Apr 14 j 13:39 -2983 Jul 08 j 16:07	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0°\$\tilde{	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11 0°45'18 6.01307 AU -1°-35'-9 3.99634 AU -1°-14'-46 1°14'52	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 14 j 18:45 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:35 -2979 Jul 04 j 3:45 -2979 Jul 04 j 3:45 -2979 Jul 18 j 04:55 -2979 Sep 05 j 03:24 -2979 Nov 15 j 23:01 -2978 Jan 14 j 23:25 -2978 Jan 15 j 12:41 -2978 Feb 02 j 07:22 -2978 Mar 18 j 01:40 -2978 May 01 j 04:03 -2978 Jul 23 j 15:07 -2978 Aug 04 j 08:19	15°\26'25 15°\34'53 15°\33'34 18°\33'51 28°\33'26 0°\1\6°\15'14 1°\116'39 1°\17'23 30°\8\26'\813'09 0°\1\14'\116'29 17°\112'04 17°\112'04 17°\112'02 17°\107'12 20'\106'02 0°\\$\frac{3}{2}\frac{3}{2}\frac{1}{2}\frac{5}{2}\frac{1}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}1	6.27941 AU 0°21'41 4.32942 AU 0°35'52 0°35'58 6.36954 AU 1°17'37 4.39650 AU 6.40771 AU
behind sun begin behind sun end max. Earth dist. desc. node morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min. Earth dist. direct evening set	-2986 Dec 04 j 02:25 -2986 Dec 04 j 18:31 -2986 Dec 03 j 20:55 -2986 Dec 09 j 00:34 -2986 Dec 17 j 06:36 -2985 Jan 16 j 09:26 -2985 Apr 26 j 00:18 -2985 Jun 25 j 18:21 -2985 Jun 25 j 16:54 -2985 Aug 24 j 00:32 -2985 Dec 26 j 09:41 -2984 Jan 08 j 10:31 -2984 Jan 08 j 10:31 -2984 Jan 09 j 02:42 -2984 Jan 21 j 14:16 -2984 Jan 28 j 12:10 -2984 Jan 28 j 12:10 -2984 Jun 01 j 15:36 -2984 Jul 31 j 01:17 -2984 Sep 28 j 02:13 -2983 Feb 07 j 13:13 -2983 Feb 13 j 04:35 -2983 Feb 13 j 04:33 -2983 Feb 14 j 20:23 -2983 Feb 26 j 16:12 -2983 Apr 14 j 13:39	20°M.03'01 20°M.12'29 19°M.59'45 21°M.12'48 23°M.09'24 0°\$\tilde{	6.09592 AU 0°-35'-21 4.04747 AU 0°-45'-11 0°45'18 6.01307 AU -1°-35'-9 3.99634 AU -1°-14'-46 1°14'52	behind sun begin behind sun end max. Earth dist. morning rise asc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-2980 Jun 01 j 08:48 -2980 Jun 02 j 00:06 -2980 Jun 02 j 08:29 -2980 Jun 15 j 07:19 -2980 Aug 03 j 09:51 -2980 Aug 11 j 05:55 -2980 Oct 16 j 06:02 -2980 Dec 14 j 20:56 -2980 Dec 14 j 18:45 -2980 Dec 24 j 13:50 -2979 Feb 13 j 22:36 -2979 Apr 06 j 10:13 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:37 -2979 Jul 04 j 22:35 -2979 Jul 04 j 3:45 -2979 Jul 04 j 3:45 -2979 Jul 18 j 04:55 -2979 Sep 05 j 03:24 -2979 Nov 15 j 23:01 -2978 Jan 14 j 23:25 -2978 Jan 15 j 12:41 -2978 Feb 02 j 07:22 -2978 Mar 18 j 01:40 -2978 May 01 j 04:03 -2978 Aug 04 j 08:19	15°\26'25 15°\34'53 15°\33'34 18°\33'51 28°\33'26 0°\II 6°\II5'14 1°\II16'39 1°\II17'23 30°\8\26'\8\13'09 0°\II 14°\II16'29 17°\II12'04 17°\II12'02 17°\II07'12 20°\II06'02 0°\S 7°\S12'51 2°\S17'59 2°\S13'39 30'\R\II 27°\II14'33 0°\S 15°\S04'32 17°\S37'47 17°\S54'45 17°\S54'45	6.27941 AU 0°21'41 4.32942 AU 0°35'52 0°35'58 6.36954 AU 1°17'37 4.39650 AU 6.40771 AU 1°07'33

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 38

•	ical year style is used: The		•				
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-2978 Oct 03 j 02:25	0°N		opposition	-2972 Aug 06 j 02:53		
retrograde	-2978 Dec 16 j 17:33	7° Ω 39'47		direct	-2972 Oct 03 j 05:40		
opposition	-2977 Feb 15 j 02:59	2° Ω 47'30	1°51'12		-2971 Jan 21 j 12:48	0° ≈	
min. Earth dist.	-2977 Feb 16 j 06:01	2° Ω 38'49	4.40492 AU	evening set	-2971 Feb 05 j 02:22	3° ≈ 24'46	
	-2977 Mar 10 j 05:02						
direct	-2977 Apr 18 j 19:17	27°5945'21		conjunction	-2971 Feb 18 j 11:34	6° ≈ 35'44	-1°-16'-47
	-2977 May 28 j 10:51	0 $^{\circ}\Omega$		minimum elong	-2971 Feb 18 j 11:33	6° ≈ 35'44	1°16'52
	-2977 Aug 21 j 03:50			max. Earth dist.	-2971 Feb 20 j 06:02	7° ≈ 01'02	6.00399 AU
evening set	-2977 Aug 23 j 18:52	15° Ω 34'28		morning rise	-2971 Mar 03 j 23:58	9° ≈ 48'20	
max. Earth dist.	-2977 Sep 03 j 16:13	17° Ω 58'26	6.38442 AU		-2971 Mar 26 j 11:10		
					-2971 Jul 06 j 15:42	0° ∺	
conjunction	-2977 Sep 05 j 11:42		1°20'17	retrograde	-2971 Jul 13 j 19:06	0° ₩ 05'05	
minimum elong	-2977 Sep 05 j 11:42	18° Ω 22'28	1°20'21	: E 4 E 4	-2971 Jul 20 j 21:47	30°R≈	4.02045 ATT
morning rise	-2977 Sep 18 j 01:58 -2977 Oct 30 j 18:24	21° Ω 09'17 0° m		min. Earth dist.	-2971 Sep 10 j 06:33	25°≈10'20 24°≈59'59	4.03045 AU -1°-58'-4
retrograde	-2976 Jan 17 j 06:45	8°Mp21'41		opposition direct	-2971 Sep 11 j 12:58 -2971 Nov 08 j 13:58	24 ≈39 39 20°≈03'23	-1 -36-4
opposition	-2976 Mar 18 j 01:51	3° M) 30'10	1°54'18	direct	-2970 Jan 31 j 02:46	20 ≈ 03 23 0° ∺	
min. Earth dist.	-2976 Mar 19 j 09:53	3° m) 19'58	4.35223 AU	evening set	-2970 Mar 14 j 06:21	9° ∺ 18'46	
iiiii. Lattii dist.	-2976 Apr 17 j 15:56	30°RΩ	4.33223 AO	evening set	-27/0 Wiai 14 j 00.21) / (10 4 0	
direct	-2976 May 19 j 14:06	28° Ω 30'16		conjunction	-2970 Mar 27 j 22:10	12° ¥ 29'38	-1°-13'-30
4.1.001	-2976 Jun 20 j 12:36	0° m)		minimum elong	-2970 Mar 27 j 22:13		1°13'33
evening set	-2976 Sep 22 j 18:37	16° m 30'45		max. Earth dist.	-2970 Mar 29 j 23:49		6.06990 AU
max. Earth dist.	-2976 Oct 03 j 13:07	18° m 56'07	6.30599 AU	morning rise	-2970 Apr 10 j 15:58		-
	J	•		C	-2970 Jun 19 j 12:37	0° Υ	
conjunction	-2976 Oct 05 j 07:59	19° m 20'20	1°10'24	retrograde	-2970 Aug 17 j 22:17	5° Ƴ 14'02	
minimum elong	-2976 Oct 05 j 08:02	19° m 20'21	1°10'25	min. Earth dist.	-2970 Oct 15 j 05:32	0° Υ 18'58	4.12225 AU
morning rise	-2976 Oct 17 j 19:57	22°M 09'27		opposition	-2970 Oct 16 j 09:50	0° Υ 09'19	-1°-30'-52
	-2976 Nov 23 j 09:22	0∘ ⊽			-2970 Oct 17 j 13:08		
retrograde	-2975 Feb 18 j 10:40	10° ≏ 01'20		direct	-2970 Dec 14 j 02:27		
opposition	-2975 Apr 20 j 11:02	5° ≏ 08'52			-2969 Feb 08 j 19:19	0° Υ	
min. Earth dist.	-2975 Apr 21 j 15:53	4° ≏ 59'41	4.25243 AU	evening set	-2969 Apr 19 j 18:16	14° Ƴ 01'02	
direct	-2975 Jun 21 j 04:43	0° ≙ 11'51				••	
evening set	-2975 Oct 24 j 10:23	18° ≏ 33'30		conjunction	-2969 May 03 j 12:45		0°-43'-52
max. Earth dist.	-2975 Nov 04 j 16:38	21° £ 09'33	6.19360 AU	minimum elong	-2969 May 03 j 12:49	17° Y 08′21	0°43'51
	2075 N 06:00 44	210 0 20100	0020101	max. Earth dist.	-2969 May 05 j 00:42		6.17990 AU
conjunction	-2975 Nov 06 j 00:44 -2975 Nov 06 j 00:47		0°39'01 0°38'58	morning rise	-2969 May 17 j 07:30 -2969 Jul 02 j 08:33	20° Y 15'26 0° と	
minimum elong morning rise	-2975 Nov 06 j 00.47 -2975 Nov 18 j 15:36		0 38 38	retrograde	-2969 Sep 20 j 00:56	8° 8 46'46	
morning rise	-2975 Dec 13 j 15:36	0°M		opposition	-2969 Nov 18 j 12:19	3° 8 44'48	0°-34'-5
retrograde	-2974 Mar 25 j 12:30	13°ML10'59		min. Earth dist.	-2969 Nov 17 j 20:17	3° 8 50'13	4.23858 AU
opposition	-2974 May 25 j 12:54	8°ML15'49	0°25'23	mm. Barur dige.	-2969 Dec 20 j 00:36		25050110
min. Earth dist.	-2974 May 26 j 03:27	8°M11'08	4.13454 AU	direct	-2968 Jan 17 j 10:31		
direct	-2974 Jul 24 j 23:25	3°M21'23			-2968 Feb 15 j 05:23	0°8	
desc. node	-2974 Oct 17 j 12:06	13°ML14'33			-2968 May 14 j 04:18	15° 8	
	-2974 Oct 25 j 21:46	15° M ₊		evening set	-2968 May 23 j 18:28	17° 8 05'51	
evening set	-2974 Nov 26 j 12:46	22°M09'47					
				conjunction	-2968 Jun 06 j 10:20		0°00'-47
conjunction	-2974 Dec 09 j 07:57			minimum elong	-2968 Jun 06 j 10:20		0°00'44
minimum elong	-2974 Dec 09 j 07:56		0°06'27	behind sun begin	-2968 Jun 06 j 02:02		
behind sun begin	-2974 Dec 09 j 00:21			behind sun end	-2968 Jun 06 j 18:37		6 0 0 100 100
behind sun end	-2974 Dec 09 j 15:32		(00120 133	max. Earth dist.	-2968 Jun 06 j 23:54		6.29423 AU
max. Earth dist.	-2974 Dec 09 j 00:16		6.08139 AU	asc. node	-2968 Jun 13 j 09:38		
morning rise	-2974 Dec 22 j 04:57	28°M13'58		morning rise	-2968 Jun 20 j 00:04		
ratra ara da	-2974 Dec 29 j 18:13	0°⊀ 17°. 7 50'02		ratra ara da	-2968 Jul 22 j 10:37	0°Ⅱ 10°Ⅲ44/20	
retrograde opposition	-2973 May 01 j 09:40 -2973 Jul 01 j 01:18	17° х 59'02 13° х 00'09	0°-45'-14	retrograde opposition	-2968 Oct 20 j 12:55 -2968 Dec 19 j 05:40	10° Ⅱ 44'20 5° Ⅱ 46'20	0°30'24
min. Earth dist.	-2973 Jun 30 j 21:21	13° × 00'09	4.03764 AU	min. Earth dist.	-2968 Dec 19 j 05:11	5° I I46′29	4.34110 AU
direct	-2973 Juli 30 j 21.21 -2973 Aug 29 j 03:48	8° × ⁷ 07'04	1.03/07 AU	direct	-2967 Feb 18 j 10:24	0° ∏ 42'48	1.57110 AU
evening set	-2973 Dec 31 j 12:19	27°×719'36		evening set	-2967 Jun 26 j 02:37		
,	-2972 Jan 11 j 16:40	0°ਰ ਹਾਤ			_, J. Jan. 20 J 02.37	- .55 T	
				conjunction	-2967 Jul 09 j 10:42	21° ∏ 38'38	0°41'11
conjunction	-2972 Jan 13 j 14:01	0°る27'09	0°-50'-48	minimum elong	-2967 Jul 09 j 10:39		0°41'16
minimum elong	-2972 Jan 13 j 13:58	0° ප 27'07	0°50'54	max. Earth dist.	-2967 Jul 08 j 20:56		6.37714 AU
max. Earth dist.	-2972 Jan 14 j 09:18	0° る 38'42	6.00848 AU	morning rise	-2967 Jul 22 j 15:51	24° Ⅱ 31'49	
morning rise	-2972 Jan 26 j 18:59	3°₹36′29			-2967 Aug 17 j 12:11	0ංම	
retrograde	-2972 Jun 06 j 21:26	23° る 57'44		retrograde	-2967 Nov 20 j 07:09	11°936'05	
min. Earth dist.	-2972 Aug 05 j 04:12	19° る 02'34	3.99772 AU	opposition	-2966 Jan 19 j 07:42	6°5541'41	1°23'54

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -2966 in astronomical counting style is the year 2967 BCE in historical counting style. -2966 Jan 20 i 00:08 6°536'20 4.39974 AU conjunction -2960 Jan 18 j 15:23 5°る34'19 0°-55'-51 min. Earth dist. -2966 Mar 22 j 13:26 minimum elong -2960 Jan 18 j 15:20 5°る34'17 0°55'57 direct 1°938'22 -2966 Jul 28 j 00:49 19°528'04 -2960 Jan 19 j 14:53 5°る48'23 max. Earth dist. 6 00700 AU evening set max. Earth dist. -2966 Aug 08 j 15:11 21°559'55 6.40618 AU -2960 Jan 31 j 21:12 8°₹44'06 morning rise -2960 Jun 12 j 01:42 29°**⋜**05'59 retrograde conjunction -2966 Aug 10 j 00:02 22°517'54 1°10'36 min. Earth dist. -2960 Aug 10 j 05:51 24°중10'40 4.00103 AU -2966 Aug 09 j 23:59 22°517'52 -1°-46'-4 minimum elong 1°10'42 opposition -2960 Aug 11 j 05:19 24°る02'47 morning rise -2966 Aug 22 j 19:53 25°506'09 direct -2960 Oct 08 j 08:01 19°**る**08'37 -2966 Sep 14 j 20:36 $0^{\circ}\Omega$ -2959 Jan 03 j 14:28 0°≈ retrograde -2966 Dec 21 j 01:54 $12^{\circ}\Omega$ 03'59 evening set -2959 Feb 10 j 05:04 8°**≈**31'12 opposition -2965 Feb 19 j 13:24 7°**Ω**11'54 1°53'36 -2959 Feb 23 j 15:14 11°≈42'15 -1°-18'-7 min. Earth dist. -2965 Feb 20 j 16:43 7°**Ω**03'09 4.39905 AU conjunction -2959 Feb 23 j 15:13 11°≈42'14 direct -2965 Apr 23 j 04:55 2°**Ω**10′05 minimum elong 1°18'12 -2965 Aug 04 j 18:05 15°**Ω** max. Earth dist. -2959 Feb 25 j 11:49 12°≈08'43 6.01155 AU evening set -2965 Aug 28 j 03:46 20°**Ω**00'52 morning rise -2959 Mar 09 j 04:30 14°≈54'50 max. Earth dist. -2965 Sep $08 \text{ j } 00:10 \quad 22^{\circ} \Omega 24'42$ 6.37468 AU -2959 Mar 09 j 13:17 -2959 May 21 j 00:32 0°**)**€ conjunction -2965 Sep 09 j 19:50 22°**Ω**48'55 1°20'17 retrograde -2959 Jul 18 j 17:59 5°**)**€06'45 minimum elong -2965 Sep 09 j 19:50 $22^{\circ}\Omega 48'55$ 1°20'19 min. Earth dist. -2959 Sep 15 j 03:31 0°**升**12'07 4.04160 AU morning rise -2965 Sep 22 j 09:29 $25^{\circ}\Omega 35'54$ opposition -2959 Sep 16 j 10:24 0°**升**01'36 -1°-56'-44 -2965 Oct 12 j 17:56 0° m -2959 Sep 16 j 15:06 30°R≈ retrograde -2964 Jan 21 j 21:33 12° m 53'07 direct -2959 Nov 13 j 11:50 25°≈04'35 opposition -2964 Mar 22 i 16:56 8° m 01'40 1°52'00 -2958 Jan 08 i 20:00 0°**∀** min. Earth dist. -2964 Mar 24 i 01:39 7° m 51'15 4.33929 AU -2958 Mar 19 j 08:02 14° **€** 17'05 evening set direct -2964 May 24 j 04:08 3°m 02'14 -2964 Sep 27 j 05:03 21° mp 05'36 -2958 Apr 02 j 00:20 17° **★** 27'36 -1°-10'-45 evening set conjunction -2964 Oct 07 j 23:44 23° m 31'39 -2958 Apr 02 j 00:23 17° **X** 27'38 1°10'47 max. Earth dist. 6.29107 AU minimum elong -2958 Apr 03 j 23:09 17° **€** 54'48 max. Earth dist. 6.08347 AU -2964 Oct 09 j 18:18 23° m 55'46 1°07'09 morning rise -2958 Apr 15 j 18:39 20° **∺**38'53 conjunction -2964 Oct 09 j 18:20 23° m 55'48 1°07'09 -2958 May 28 j 14:42 $0^{\circ}\Upsilon$ minimum elong -2964 Oct 22 j 06:30 26° m 45'36 -2958 Aug 22 j 13:39 10°**Y**03'48 retrograde morning rise -2964 Nov 05 j 19:48 0°**♀** -2958 Oct 19 j 22:48 5°**Υ**08'22 4.13675 AU min. Earth dist. -2963 Feb 23 j 06:25 14°**2**44'41 4°**Υ**59'20 -1°-24'-21 -2958 Oct 21 j 01:16 retrograde opposition -2963 Apr 25 j 07:53 9°**£**51'56 1°17'12 -2958 Dec 15 j 21:10 30°R ₩ opposition -2963 Apr 26 j 10:07 9°**•**43'34 4.23662 AU -2958 Dec 18 j 21:39 29° ¥ 59'04 min. Earth dist. direct direct -2963 Jun 25 j 21:09 4°**£**55'22 -2958 Dec 21 j 22:19 0°**Υ** -2957 Apr 24 j 16:05 18°**Y**47'19 evening set -2963 Oct 29 j 00:29 23°**£**20'20 evening set max. Earth dist. -2963 Nov 09 j 11:54 25°**2**59'50 6.17854 AU conjunction -2957 May 08 j 10:46 21°**Y**54'01 0°-38'-24 conjunction -2963 Nov 10 j 15:24 26°**£**15'49 0°33'11 minimum elong -2957 May 08 j 10:49 21°**Υ**54'03 0°38'23 -2963 Nov 10 j 15:26 26°**£**15'51 max. Earth dist. -2957 May 09 j 20:54 22°**Υ**13'20 6.19447 AU minimum elong 0°33'08 -2963 Nov 23 j 06:48 29°**£**11'50 -2957 May 22 j 05:01 25°**Y**00′20 morning rise morning rise -2963 Nov 26 j 18:26 -2957 Jun 13 j 23:07 0°8 -2962 Feb 12 j 18:46 15°M -2957 Sep 24 j 11:29 13°**8**24'09 retrograde -2962 Mar 30 j 16:09 18° ML07'17 -2957 Nov 22 j 23:01 8°\u22'45 0°-25'-11 retrograde opposition -2962 May 16 i 06:31 15°RML min. Earth dist. -2957 Nov 22 j 08:52 8°827'31 4.25190 AU opposition -2962 May 30 j 15:00 13°ML11'42 0°15'37 direct -2956 Jan 22 i 00:56 3°**8**20'10 min. Earth dist. -2962 May 31 i 03:35 13° ML07'38 4.12131 AU asc. node -2956 Apr 23 j 23:40 14°**8**23'10 direct -2962 Jul 29 i 21:56 8°M17'37 -2956 Apr 27 j 01:03 15°8 -2962 Aug 27 j 03:10 9°MJ33'50 -2956 May 28 j 11:44 21°841'00 desc. node evening set -2962 Oct 05 j 16:25 15°M -2962 Dec 01 j 08:14 27° ML08'41 -2956 Jun 11 j 02:41 24°841'32 0°05'26 evening set conjunction -2962 Dec 13 j 09:37 -2956 Jun 11 j 02:39 24°**8**41'31 0°05'31 0°×7 minimum elong behind sun begin -2956 Jun 10 j 18:42 24°837'08 conjunction -2962 Dec 14 j 04:04 0°**∡**10'56 0°-13'-1 behind sun end -2956 Jun 11 j 10:37 24°**8**45'53 0°**∡**10′56 minimum elong -2962 Dec 14 j 04:02 0°13'08 max. Earth dist. -2956 Jun 11 j 11:04 24°**8**46'09 6.30532 AU -2962 Dec 13 j 23:08 0°**₺**08'02 morning rise -2956 Jun 24 j 15:37 27°**8**40'51 behind sun begin -2962 Dec 14 j 08:57 0°**х** 13′50 -2956 Jul 05 j 07:08 0°**Ⅱ** behind sun end 0°**∡**08'07 6.07118 AU -2956 Oct 24 j 20:52 15°**I**I12'55 max. Earth dist. -2962 Dec 13 j 23:18 retrograde -2956 Dec 23 j 14:12 10°**I**I15'26 morning rise -2962 Dec 27 j 02:11 3°**∡**14'33 opposition 0°38'49 -2956 Dec 23 j 16:31 10°**I**I14'39 retrograde -2961 May 06 j 13:39 23°**尽** 05'04 min. Earth dist. 4.34939 AU -2961 Jul 06 j 05:21 18° ₹ 05'36 0°-54'-33 direct -2955 Feb 22 j 23:16 5°**Ⅲ**11'48 opposition min. Earth dist. -2961 Jul 05 j 21:33 18°**尽** 08'10 4.03160 AU evening set -2955 Jun 30 j 15:27 23°**Ⅲ**11'36 direct -2961 Sep 03 j 02:59 13°**尽** 12'34 -2961 Dec 26 j 04:52 0°ಕ conjunction -2955 Jul 13 j 22:30 26°**Ⅱ**05'40 0°46'13 -2960 Jan 05 j 12:42 2°**る**26'17 -2955 Jul 13 j 22:27 26°**耳**05'38 0°46'19 evening set minimum elong

max. Earth dist.

-2955 Jul 13 j 07:11 25°**Д**57'17 6.38207 AU

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, Attention, astronomical year style is used: The year -2955 in astronomical counting style is the year 2956 BCE in historical counting style. -2955 Jul 27 j 02:12 28°**Ⅲ**58'05 direct -2949 Sep 08 i 03:53 18° ₹ 16'04 morning rise -2955 Jul 31 j 20:33 -2949 Dec 08 j 17:23 0°궁 000 -2955 Nov 24 j 13:29 16°500'36 -2948 Jan 10 j 13:13 7°る32'11 retrograde evening set -2954 Jan 23 j 16:15 11°506'36 1°29'41 opposition -2954 Jan 24 j 09:31 11°501'00 conjunction -2948 Jan 23 j 16:57 10°₹40'51 min. Earth dist. 4.40134 AU -1°00'-31 -2948 Jan 23 j 16:53 10°**⋜**40'49 direct -2954 Mar 26 j 23:32 6°∽03'27 minimum elong 1°00'37 -2948 Jan 24 j 19:54 10°**3**57'00 evening set -2954 Aug 01 j 10:59 23°553'07 max. Earth dist. 6.00241 AU -2948 Feb 05 j 23:54 max. Earth dist. -2954 Aug 12 j 21:14 26°522'58 6.40417 AU morning rise 13°**る**51'18 -2948 Apr 24 j 22:44 0°≈ 4°≈14'50 conjunction -2954 Aug 14 j 08:52 26°542'30 1°13'14 retrograde -2948 Jun 17 j 06:19 minimum elong -2954 Aug 14 j 08:49 26°5942'29 1°13'18 -2948 Aug 10 j 06:41 30°Ŗる -2954 Aug 27 j 03:46 29°530'24 -2948 Aug 15 j 06:37 morning rise min. Earth dist. 29°る19'49 4.00111 AU -2954 Aug 29 j 10:11 0 $^{\circ}\Omega$ opposition -2948 Aug 16 j 07:57 29°**궁**11'17 -1°-50'-17 -2954 Nov 24 j 08:29 15°**Ω** direct -2948 Oct 13 j 08:27 24°る16'49 retrograde -2954 Dec 25 j 12:27 16°**Ω**29'36 -2948 Dec 13 j 01:29 0°≈ -2953 Jan 25 j 18:39 15°R**Ω** evening set -2947 Feb 15 j 09:27 13°≈39'48 opposition -2953 Feb 24 j 00:26 $11^{\circ}\Omega$ 37'40 $1^{\circ}55'19$ -2947 Feb 21 j 01:11 15°≈ min. Earth dist. -2953 Feb 25 j 05:33 11° Ω 28'20 4.39371 AU direct -2953 Apr 27 j 17:30 6°**Ω**36′04 conjunction -2947 Feb 28 j 20:31 16°≈51'04 -1°-18'-53 -2953 Jul 17 j 12:00 15° Ω minimum elong -2947 Feb 28 j 20:31 16°≈51'03 1°18'57 evening set -2953 Sep 01 j 12:26 $24^{\circ}\Omega$ 27'51 max. Earth dist. -2947 Mar 02 j 17:06 17°≈17'29 6.01597 AU -2953 Sep 12 j 08:19 26°**Ω**51'44 max. Earth dist. 6.36622 AU morning rise -2947 Mar 14 j 10:47 20°≈03'50 -2947 Apr 28 i 04:43 0°**)**€ conjunction -2953 Sep 14 i 03:57 $27^{\circ}\Omega$ 15'58 1°19'47 retrograde -2947 Jul 23 j 17:16 10° ¥ 11'59 minimum elong -2953 Sep 14 j 03:58 $27^{\circ}\Omega$ 15'58 1°19'50 min. Earth dist. -2947 Sep 20 j 02:24 5°**)** 17'16 4.04980 AU -2953 Sep 26 j 17:04 0° m 03'04 -2947 Sep 21 j 09:11 5°\colon 06'45 -1°-54'-33 morning rise opposition -2953 Sep 26 j 11:30 0° m -2947 Nov 18 j 12:14 0°\09'15 direct -2952 Jan 26 j 10:08 17° m 24'29 evening set -2946 Mar 24 j 12:06 19° ¥ 20'03 retrograde -2952 Mar 27 j 07:57 12° m/32'52 1°49'01 opposition -2952 Mar 28 j 15:19 12° m 22'53 4.32817 AU -2946 Apr 07 j 05:16 22° ¥ 30'24 -1°-7'-26 min. Earth dist. conjunction -2952 May 28 j 16:19 7° m 33'46 -2946 Apr 07 j 05:20 22° ¥ 30'26 1°07'27 direct minimum elong -2952 Oct 01 j 14:43 25° m 39'06 -2946 Apr 09 j 04:28 22° **€** 57'45 max. Earth dist. 6.09493 AU evening set max. Earth dist. -2952 Oct 12 j 11:22 28° M 06'43 6.27805 AU -2946 Apr 20 j 23:50 25° **★**41'20 morning rise -2946 May 10 j 02:12 0°**Υ** -2952 Oct 14 j 03:52 28° m 29'45 1°03'29 -2946 Aug 27 j 08:57 14°**Υ**58'59 conjunction retrograde -2952 Oct 14 j 03:55 28° m 29'46 1°03'29 -2946 Oct 25 j 19:13 9°**Υ**54'55 -1°-17'-5 minimum elong opposition -2952 Oct 20 j 18:39 0°**♀** -2946 Oct 24 j 18:09 10°**Y**'03'27 4.15013 AU min. Earth dist. morning rise -2952 Oct 26 j 16:11 1°**≏**20′10 direct -2946 Dec 23 j 18:44 4°**Υ**54'21 retrograde -2951 Feb 28 j 03:02 19°**£**25'46 evening set -2945 Apr 29 j 16:47 23°**Y**39'36 opposition -2951 Apr 30 j 03:57 14°**♀**32'42 1°09'52 min. Earth dist. -2951 May 01 j 05:46 14°**2**24'28 4.22217 AU conjunction -2945 May 13 j 11:12 26°**Y**45'38 0°-32'-31 -2951 Jun 30 j 14:48 9°**೨**36'27 -2945 May 13 j 11:15 26°**Y**45'40 0°32'30 direct minimum elong -2951 Nov 02 j 13:42 28°**♀**04'16 max. Earth dist. -2945 May 14 j 17:44 27°**Y**02'51 evening set -2951 Nov 10 j 21:05 -2945 May 27 j 05:15 29°**Y**51'13 morning rise max. Earth dist. -2951 Nov 14 j 03:18 -2945 May 27 j 20:58 0°**႘** 0°**IL**45'34 6.16386 AU -2945 Aug 14 j 22:39 15°8 -2951 Nov 15 i 05:05 -2945 Sep 28 j 23:56 18°807'34 conjunction 1°ML00'35 0°27'09 retrograde minimum elong -2951 Nov 15 i 05:07 1°ML00'36 0°27'07 -2945 Nov 13 i 03:05 15°R& -2945 Nov 27 j 12:34 13°**8**06'43 0°-15'-54 morning rise -2951 Nov 27 j 21:19 3°M57'34 opposition -2950 Jan 18 j 08:24 15°M min. Earth dist. -2945 Nov 27 j 00:00 13°**8**10'57 4.26620 AU -2950 Apr 04 j 16:10 23°ML00'31 direct -2944 Jan 26 j 18:48 8°**8**03'58 retrograde -2950 Jun 04 j 15:27 18°ML04'25 0°05'47 asc. node -2944 Mar 02 j 23:26 10°**8**03'12 opposition -2944 Apr 06 j 21:58 15°**8** min. Earth dist. -2950 Jun 05 j 00:44 18°M 01'24 4.10754 AU -2950 Jun 30 j 09:13 15°RML evening set -2944 Jun 02 j 07:16 26°**8**21'40 desc. node -2950 Jul 07 j 04:26 14° ML22'24 -2950 Aug 03 j 16:43 13°ML10'31 direct conjunction -2944 Jun 15 j 21:22 29°**8**21'16 0°11'41 -2950 Sep 06 j 15:20 15°ML minimum elong -2944 Jun 15 j 21:22 29°**8**21'16 0°11'46 -2950 Nov 27 j 05:53 -2944 Jun 15 j 15:40 29°**8**18'08 0°**√** behind sun begin -2950 Dec 06 j 02:59 -2944 Jun 16 j 03:03 29°**8**24'24 evening set 2°**х**¹04'53 behind sun end -2944 Jun 16 j 04:01 29°**8**24'55 6.31897 AU max. Earth dist. -2950 Dec 18 j 23:42 5°**⋌**¹08'00 0°-19'-36 -2944 Jun 18 j 19:30 conjunction Π $^{\circ}0$ minimum elong -2950 Dec 18 j 23:41 5°**х** 07'59 0°19'42 morning rise -2944 Jun 29 j 09:02 2°**Ⅱ**19'33 max. Earth dist. -2950 Dec 18 j 23:05 5°**х** 07′38 6.05952 AU retrograde -2944 Oct 29 j 06:14 19°**II**45'47 morning rise -2950 Dec 31 j 22:45 8°**҂**12'33 opposition -2944 Dec 28 j 00:44 14°**II**48'54 0°47'09 retrograde -2949 May 11 j 19:11 28° ₹09'13 min. Earth dist. -2944 Dec 28 j 04:36 14°**Ⅱ**47'38 4.36161 AU -2949 Jul 11 j 08:45 23°**х** 09'11 -1°-3'-28 -2943 Feb 27 j 13:50 9°**П**45'24 opposition direct

evening set

-2943 Jul 05 j 05:33 27°**Ⅱ**42'17

-2949 Jul 10 j 23:27 23°**√**12'15 4.02315 AU

min. Earth dist.

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 41 Attention, astronomical year style is used: The year -2943 in astronomical counting style is the year 2944 BCE in historical counting style.

Attention, astronomic	cal year style is used: Th	ne year -2943	in astronomical cou	nting style is the year	2944 BCE in historical c	counting style.	
	-2943 Jul 15 j 18:22	0 \circ \odot		retrograde	-2937 May 16 j 21:10	3° る 07'09	
					-2937 Jul 01 j 17:31	30°R. ✓	
conjunction	-2943 Jul 18 j 11:07	0°\$35'23	0°51'03	opposition	-2937 Jul 16 j 08:52	28° ₹ 06'40	-1°-11'-39
minimum elong	-2943 Jul 18 j 11:04	0°935'21	0°51'08	min. Earth dist.	-2937 Jul 15 j 21:13		4.01154 AU
max. Earth dist.	-2943 Jul 17 j 16:06	0°\$24'59	6.39198 AU	direct	-2937 Sep 12 j 23:23		
morning rise	-2943 Jul 31 j 13:35	3°926'52			-2937 Nov 18 j 19:17	0°ਰ	
retrograde	-2943 Nov 28 j 21:28	20°\$26'07		evening set	-2936 Jan 15 j 12:12		
opposition	-2942 Jan 28 j 01:42	15°532'30	1°34'55	evening set	2,50 Jun 15 j 12.12	12 03337	
min. Earth dist.	-2942 Jan 28 j 20:55	15°526'17	4.40857 AU	conjunction	-2936 Jan 28 j 16:56	150至43100	-1°-4'-34
direct	-2942 Mar 31 j 12:16	10°S29'31	4.40037 AO	minimum elong	-2936 Jan 28 j 16:53		1°04'41
	·			_	3		
evening set	-2942 Aug 05 j 19:58	28°9517'00		max. Earth dist.	-2936 Jan 29 j 21:41		5.99428 AU
79 J. P.	-2942 Aug 13 j 16:47	0°N	C 10011 177	morning rise	-2936 Feb 11 j 01:07		
max. Earth dist.	-2942 Aug 17 j 05:11	0°8746'13	6.40811 AU		-2936 Mar 31 j 23:31	0° ≈	
		_		retrograde	-2936 Jun 22 j 09:11	9° ≈ 21′03	
conjunction	-2942 Aug 18 j 16:49	1° Ω 05'46		min. Earth dist.	-2936 Aug 20 j 06:01	4° ≈ 26′09	3.99752 AU
minimum elong	-2942 Aug 18 j 16:47	1° Ω 05'45	1°15'29	opposition	-2936 Aug 21 j 08:48	4° ≈ 17'05	-1°-53'-32
morning rise	-2942 Aug 31 j 10:26	3° £ 53′02			-2936 Sep 29 j 04:55	30°Ŗ₹	
	-2942 Oct 26 j 11:30	15° Ω		direct	-2936 Oct 18 j 07:55	29° る 22'14	
retrograde	-2942 Dec 29 j 19:05	20° Ω 51'56			-2936 Nov 06 j 11:37	0° ≈	
opposition	-2941 Feb 28 j 10:20	16° Ω 00′10	1°56'17		-2935 Feb 04 j 06:48	15° ≈	
min. Earth dist.	-2941 Mar 01 j 15:29	15° Ω 50'51	4.39412 AU	evening set	-2935 Feb 20 j 13:11	18° ≈ 47'07	
	-2941 Mar 08 j 07:58	15°RΩ		S	3		
direct	-2941 May 02 j 03:18	10° Ω 58'55		conjunction	-2935 Mar 06 j 01:34	21°aa58'51	-1°-18'-58
direct	-2941 Jun 25 j 00:12			minimum elong	-2935 Mar 06 j 01:34		1°19'03
evening set	-2941 Sep 05 j 18:44	28° Ω 49'45		max. Earth dist.	-2935 Mar 08 j 01:15		6.01737 AU
evening set							0.01/3/ AU
E d E d	-2941 Sep 11 j 01:42	0°M)	(2(202 ATT	morning rise	-2935 Mar 19 j 16:39		
max. Earth dist.	-2941 Sep 16 j 12:40	1° 110/12'4/	6.36293 AU		-2935 Apr 09 j 13:00	0°) (
				retrograde	-2935 Jul 28 j 18:18		
conjunction	-2941 Sep 18 j 09:24	1°Mp37'41	1°18'49	min. Earth dist.	-2935 Sep 25 j 01:07		4.05603 AU
minimum elong	-2941 Sep 18 j 09:25	1° m 37'41	1°18'52	opposition	-2935 Sep 26 j 07:44	10° ∺ 11'49	-1°-51'-26
morning rise	-2941 Sep 30 j 22:06	4° Mp 24'44		direct	-2935 Nov 23 j 11:58	5°) 13′54	
retrograde	-2940 Jan 30 j 21:55	21° m 49'01		evening set	-2934 Mar 29 j 16:28	24°) €23'24	
opposition	-2940 Mar 31 j 20:16	16° m 57'19	1°45'24				
min. Earth dist.	-2940 Apr 02 j 04:40	16° Mp 47'01	4.32109 AU	conjunction	-2934 Apr 12 j 10:06	27°) €33'33	-1°-3'-34
direct	-2940 Jun 02 j 04:19	11° m 58'32		minimum elong	-2934 Apr 12 j 10:09	27° ₩ 33'35	1°03'34
evening set	-2940 Oct 05 j 20:51	0° ഫ 04'42		max. Earth dist.	-2934 Apr 14 j 08:00		6.10536 AU
5 · • · · · · · · · · · · · · · · · · ·	-2940 Oct 05 j 12:32	0∘ ರ			-2934 Apr 23 j 00:10	0° Υ	
max. Earth dist.	-2940 Oct 16 j 18:08		6.26781 AU	morning rise	-2934 Apr 26 j 05:10	0° Υ 44'10	
max. Lartii dist.	-2740 Oct 10 j 10.00	2 = 33 01	0.20701 AC	retrograde	-2934 Sep 01 j 01:55		
agniumation	2040 Oat 19:10:05	20 0 55146	0950122				10 0! 15
conjunction	-2940 Oct 18 j 10:05	2° Ω 55'46	0°59'33	opposition		14° Y 50'39	-1°-9'-15
minimum elong	-2940 Oct 18 j 10:08	2° £ 55'48	0°59'32	min. Earth dist.	-2934 Oct 29 j 12:04	14° Y 59'08	4.16354 AU
morning rise	-2940 Oct 30 j 22:34	5° Ω 46'43		direct	-2934 Dec 28 j 15:57	9° Ƴ 49'38	
retrograde	-2939 Mar 04 j 17:47			evening set	-2933 May 04 j 17:21		
opposition	-2939 May 04 j 20:00	19° ≏ 04'46	1°02'19		-2933 May 11 j 07:26	0°8	
min. Earth dist.	-2939 May 05 j 19:57	18° ≙ 57'07	4.20926 AU				
direct	-2939 Jul 05 j 02:04	14° ≏ 08'51		conjunction	-2933 May 18 j 11:35	1° 8 36'45	0°-26'-24
	-2939 Oct 26 j 09:16	0° M		minimum elong	-2933 May 18 j 11:37	1° 8 36'47	0°26'22
evening set	-2939 Nov 06 j 23:06	2°M39'25		max. Earth dist.	-2933 May 19 j 16:06	1° 8 52'47	6.22423 AU
				morning rise	-2933 Jun 01 j 04:57	4° 8 41'23	
conjunction	-2939 Nov 19 j 14:58	5°M36'33	0°21'11		-2933 Jul 20 j 20:04	15° ∀	
minimum elong	-2939 Nov 19 j 15:00	5° ™ 36'34	0°21'08	retrograde	-2933 Oct 03 j 13:18	22° 8 49'37	
max. Earth dist.	-2939 Nov 18 j 15:14	5° ™ 22'41	6.14945 AU	opposition	-2933 Dec 02 j 01:37		0°-6'-32
morning rise	-2939 Dec 02 j 07:57	8°M34'30	0.11712710	min. Earth dist.	-2933 Dec 01 j 15:21		4.28170 AU
morning rise	-2939 Dec 30 j 20:08	15°M		mm. Larm dist.	-2933 Dec 24 j 10:46		4.20170710
	·			1			
retrograde	-2938 Apr 09 j 15:04	27°M45'22		asc. node	3	13° 8 27'29	
desc. node	-2938 May 19 j 07:44	25°M24'47		direct	-2932 Jan 31 j 13:09	12° 8 46'12	
opposition	-2938 Jun 09 j 12:16	22°M48'46	0°-3'-45		3	15° 8	
min. Earth dist.	-2938 Jun 09 j 20:41	22°M46'02	4.09251 AU		-2932 Jun 02 j 11:43	$\Pi^{\circ}0$	
direct	-2938 Aug 08 j 09:53	17° M 55′02		evening set	-2932 Jun 07 j 01:49	1° Ⅱ 00′00	
	-2938 Nov 10 j 15:39	0° ∡ ¹					
evening set	-2938 Dec 10 j 18:35	6° х 53′32		conjunction	-2932 Jun 20 j 14:51	3° Ⅱ 58'34	0°17'52
				minimum elong	-2932 Jun 20 j 14:50	3° Ⅱ 58'33	0°17'57
conjunction	-2938 Dec 23 j 16:15	9° ∡ 757'41	0°-25'-48	max. Earth dist.	-2932 Jun 20 j 17:48	4° Ⅱ 00'11	6.33297 AU
minimum elong	-2938 Dec 23 j 16:13	9° ∡ ¹57'40	0°25'54	morning rise	-2932 Jul 04 j 01:23	6° Ⅱ 55'45	
max. Earth dist.	-2938 Dec 23 j 18:24	9° ∡ 58'58	6.04536 AU	retrograde	-2932 Nov 02 j 14:07		
morning rise	-2937 Jan 05 j 16:24	13° ₹ '03'20		opposition		19° Ⅱ 19'39	0°55'11
	-2937 Apr 01 j 09:25	13 × 03 20		min. Earth dist.	-2931 Jan 01 j 16:20		4.37298 AU
	275, 11p1 01 j 07.23	· •		Darm dist.	2,51,0011 01 j 10.20	-> 1/70	, 270 110

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 42 Attention, astronomical year style is used: The year -2931 in astronomical counting style is the year 2932 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	ne year -2931	in astronomical cou	inting style is the year	2932 BCE in historical of	counting style.	
direct	-2931 Mar 04 j 03:07	14° Ⅱ 16′03		minimum elong	-2926 Dec 28 j 15:58		0°32'19
	-2931 Jun 29 j 15:49	0 \circ \odot		max. Earth dist.	-2926 Dec 28 j 21:28	15° ∡ 07'40	6.03292 AU
evening set	-2931 Jul 09 j 18:17	2° © 10'13		morning rise	-2925 Jan 10 j 17:24	18° ∡ 11'08	
					-2925 Mar 05 j 14:50	0°ප	
conjunction	-2931 Jul 22 j 22:35	5° © 02'28	0°55'35	retrograde	-2925 May 22 j 05:20	8° る 21'09	
minimum elong	-2931 Jul 22 j 22:32	5° 5 02'26	0°55'41	opposition	-2925 Jul 21 j 15:24		-1°-19'-47
max. Earth dist.	-2931 Jul 22 j 01:37	4° 9 51'01	6.39957 AU	min. Earth dist.	-2925 Jul 21 j 00:47	3° る 24'59	4.00424 AU
morning rise	-2931 Aug 04 j 23:33	7° © 53'03			-2925 Aug 18 j 09:03		
retrograde	-2931 Dec 03 j 04:56	24°950'04		direct	-2925 Sep 18 j 02:55		
opposition	-2930 Feb 01 j 10:54	19° © 56'48	1°39'42		-2925 Oct 18 j 15:20	0°₹	
min. Earth dist.	-2930 Feb 02 j 07:56	19° © 50'01	4.41188 AU	evening set	-2924 Jan 20 j 17:02	17° 6 49'13	
direct	-2930 Apr 04 j 23:36	14°954'00				_	
	-2930 Jul 28 j 18:25	0 \circ Ω		conjunction	-2924 Feb 02 j 23:00		
evening set	-2930 Aug 10 j 05:08	2° Ω 40'41		minimum elong	-2924 Feb 02 j 22:58		1°08'27
max. Earth dist.	-2930 Aug 21 j 09:44	5° & 2 07'35	6.40655 AU	max. Earth dist.	-2924 Feb 04 j 09:11		5.99297 AU
	2020 1 22:00 16	50 0 00100	1015114	morning rise	-2924 Feb 16 j 08:08		
conjunction	-2930 Aug 23 j 00:46	5° Ω 29'00			-2924 Mar 12 j 10:06	0°≈	
minimum elong	-2930 Aug 23 j 00:44	5° Ω 28'59	1°1/'18	retrograde	-2924 Jun 27 j 16:14		4.00270 ATT
morning rise	-2930 Sep 04 j 17:33	8° Ω 15'58		min. Earth dist.	-2924 Aug 25 j 09:41	9°≈42'26	4.00278 AU
	-2930 Oct 06 j 18:31	15° Ω		opposition	-2924 Aug 26 j 13:33	9°≈33'00	-1°-56'-2
retrograde	-2929 Jan 03 j 05:49 -2929 Mar 04 j 21:41	25° Ω 16'34	1056145	direct	-2924 Oct 23 j 12:12	4°≈37'51	
opposition min. Earth dist.	-2929 Mar 04 j 21:41 -2929 Mar 06 j 04:25	20° Ω 24'54	4.38788 AU	avanina aat	-2923 Jan 16 j 15:05 -2923 Feb 25 j 20:09		
	-2929 Mar 06 j 04:25 -2929 May 06 j 14:45	15°Ω23'53	4.38/88 AU	evening set	-2923 Feb 25 J 20:09	24°≈01'04	
direct	-2929 May 00 j 14.43 -2929 Aug 26 j 03:09	0°m)		conjunction	-2923 Mar 11 j 09:16	27°~~12'40	10 18! 31
evening set	-2929 Sep 10 j 02:45	3°Mp16'04		minimum elong	-2923 Mar 11 j 09:17		1°18'35
max. Earth dist.	-2929 Sep 20 j 21:03	-•	6.35243 AU	max. Earth dist.	-2923 Mar 11 j 09:17 -2923 Mar 13 j 09:37		6.02847 AU
max. Earth dist.	-2929 Sep 20 j 21.03	3 IIJ 37 37	0.33243 AU	max. Earth dist.	-2923 Mar 13 j 05:37 -2923 Mar 23 j 05:37	0°) €	0.02847 AU
conjunction	-2929 Sep 22 j 17:06	6° Mp 04'14	1°17'27	morning rise	-2923 Mar 25 j 03:37	0°) 25'34	
minimum elong	-2929 Sep 22 j 17:08	6° Mp 04'15		retrograde	-2923 Aug 02 j 16:06		
morning rise	-2929 Oct 05 j 05:20	8° mp 51'34	1 1/2)	min. Earth dist.	-2923 Sep 29 j 22:52		4.07180 AU
retrograde	-2928 Feb 04 j 12:17	26° m/21'15		opposition	-2923 Oct 01 j 06:13		-1°-47'-30
opposition	-2928 Apr 05 j 12:10	21° m/29'27	1°41'11	direct	-2923 Nov 28 j 12:34		1 1, 50
min. Earth dist.	-2928 Apr 06 j 19:40		4.30693 AU	evening set	-2922 Apr 03 j 20:01		
direct	-2928 Jun 06 j 16:35	16° mp 31'06			-2922 Apr 06 j 09:43	0°Υ	
	-2928 Sep 19 j 05:15	0∘ <u>⊽</u>			r,		
evening set	-2928 Oct 10 j 07:11	4° ≏ 40'26		conjunction	-2922 Apr 17 j 14:04	2° Y '34'10	0°-59'-19
max. Earth dist.	-2928 Oct 21 j 05:11	7° ≏ 09'46	6.25115 AU	minimum elong	-2922 Apr 17 j 14:08	2° Y '34'12	0°59'20
	J			max. Earth dist.	-2922 Apr 19 j 10:27	2° Y ′59'41	6.12446 AU
conjunction	-2928 Oct 22 j 20:26	7° ≏ 32'14	0°55'07	morning rise	-2922 May 01 j 09:07	5° Ƴ 43'55	
minimum elong	-2928 Oct 22 j 20:29	7° ≏ 32'15	0°55'07	retrograde	-2922 Sep 05 j 18:18	24° Y '44'09	
morning rise	-2928 Nov 04 j 09:25	10° ≏ 24'04		min. Earth dist.	-2922 Nov 03 j 06:05	19° Ƴ 48'17	4.18368 AU
retrograde	-2927 Mar 09 j 17:12	28° ≏ 43'51		opposition	-2922 Nov 04 j 04:25	19° Ƴ 40'41	-1°-1'-9
opposition	-2927 May 09 j 18:06	23° ჲ 50'06	0°54'02	direct	-2921 Jan 02 j 13:00	14° Y ′39'18	
min. Earth dist.	-2927 May 10 j 17:01	23° ≏ 42'46	4.19103 AU		-2921 Apr 24 j 18:25	9° 8	
direct	-2927 Jul 09 j 20:16	18° ≏ 54'32		evening set	-2921 May 09 j 14:19	3° 8 15'41	
	-2927 Oct 09 j 00:57	0°M₊					
evening set	-2927 Nov 11 j 14:43	7° ™ 29'37		conjunction	-2921 May 23 j 08:08	6° 8 19'57	0°-20'-19
max. Earth dist.	-2927 Nov 23 j 11:01	10° ™ 15′54	6.13149 AU	minimum elong	-2921 May 23 j 08:10	6° 8 19'58	0°20'17
				max. Earth dist.	-2921 May 24 j 09:32	6° 8 34'10	6.24376 AU
conjunction	-2927 Nov 24 j 07:24	10°M27'52	0°14'44	morning rise	-2921 Jun 06 j 00:48	9° 8 23'26	
minimum elong	-2927 Nov 24 j 07:25	10° ™ 27'52	0°14'40		-2921 Jul 01 j 23:17	15° 8	
behind sun begin	-2927 Nov 24 j 03:49	10° ™ 25'46		retrograde	-2921 Oct 07 j 20:50	27° 8 22'55	
behind sun end	-2927 Nov 24 j 11:01	10° ™ 29'58		asc. node	-2921 Nov 21 j 03:37	24° 8 22'35	
morning rise	-2927 Dec 07 j 01:15	13°M26'59		opposition	-2921 Dec 06 j 11:08	22° 8 23'03	0°02'31
	-2927 Dec 13 j 17:34	15° ™		min. Earth dist.	-2921 Dec 06 j 02:35	22° 8 25'55	4.29896 AU
1 1	-2926 Mar 02 j 17:45	0° ⊀ ⁷		direct	-2920 Feb 05 j 02:15	17° 8 19'51	
desc. node	-2926 Mar 28 j 18:12	2°×19'31			-2920 May 16 j 20:00	0°П	
retrograde	-2926 Apr 14 j 19:21	2° x ⁷ 46'49		evening set	-2920 Jun 11 j 16:14	5° Ⅱ 29'35	
***	-2926 May 28 j 08:21	30°RM 27°M 40148	00 121 54		2020 1 27:24:22	00 TAT	0022144
opposition	-2926 Jun 14 j 15:49	27°M49'48	0°-13'-54	conjunction	-2920 Jun 25 j 04:08	8° I I27'08	0°23'44
min. Earth dist.	-2926 Jun 14 j 21:09	27°M48'04	4.07657 AU	minimum elong	-2920 Jun 25 j 04:07	8° ∏ 27'07	0°23'49
direct	-2926 Aug 13 j 07:47	22°M56'21 0°⊀		max. Earth dist.	-2920 Jun 25 j 02:36	8° ∏ 26'17	6.34663 AU
avanina sat	-2926 Oct 21 j 12:45			morning rise	-2920 Jul 08 j 13:25	11° П 23'14 28° П 38'32	
evening set	-2926 Dec 15 j 17:29	11° ₹ 759'18		retrograde	-2920 Nov 06 j 20:51 -2919 Jan 05 j 17:19		1°02'38
conjunction	-2926 Dec 28 j 16:01	15° 7 04125	0°-32'-14	opposition min. Earth dist.	-2919 Jan 05 j 17:19 -2919 Jan 06 j 02:27		4.38213 AU
conjunction	-2320 DCC 26 J 10.01	13 8:04 23	0 -32-14	mm. Barui dist.	-2717 Jan 00 J 02.2/	23 H 393/	7.30213 AU

Planetary Phenomena of Jupiter from -3400 through -2900 (UT), Astrodienst AG 7-Dez-2017 14:39, page 43 Attention, astronomical year style is used: The year -2919 in astronomical counting style is the year 2920 BCE in historical counting style.

Attention, astronom	nical year style is used: The	he year -2919	in astronomical co	unting style is the year	2920 BCE in historical of	counting style	
direct	-2919 Mar 08 j 14:01	18° 耳 39′01			-2914 Sep 22 j 04:15	0°⊀	
	-2919 Jun 12 j 22:27	0 \circ \odot		evening set	-2914 Dec 20 j 18:14	17° ∡ ¹09'18	
evening set	-2919 Jul 14 j 03:44	6°531'28					
max. Earth dist.	-2919 Jul 26 j 05:49	9° © 09'23	6.40327 AU	conjunction	-2913 Jan 02 j 17:53		0°-38'-29
				minimum elong	-2913 Jan 02 j 17:50		0°38'35
conjunction	-2919 Jul 27 j 06:49	9°523'02	0°59'41	max. Earth dist.	-2913 Jan 03 j 05:23		6.02411 AU
minimum elong	-2919 Jul 27 j 06:46	9°523'00	0°59'46	morning rise	-2913 Jan 15 j 20:11		
morning rise	-2919 Aug 09 j 06:37				-2913 Feb 13 j 13:44	0°る	
retrograde	-2919 Dec 07 j 10:53	29°509'23	1042151	retrograde	-2913 May 27 j 14:53		10 271 10
opposition min. Earth dist.	-2918 Feb 05 j 18:09		1°43'51	opposition min. Earth dist.	-2913 Jul 26 j 22:23 -2913 Jul 26 j 05:40	8°る35'14 8°る40'48	-1°-27'-19 4.00150 AU
direct	-2918 Feb 06 j 16:59 -2918 Apr 09 j 07:25	19°©13'43	4.41025 AU	direct	-2913 Jul 26 j 03:40 -2913 Sep 23 j 07:23	。3°る4048 3°る41'51	4.00130 AU
direct	-2918 Apr 09 J 07.23	19 3 13 43 0° Ω		evening set	-2913 Sep 23 j 07.23 -2912 Jan 25 j 22:39		
evening set	-2918 Aug 14 j 12:13	7° Ω 01'15		evening set	-2912 Jan 23 j 22.39	23 00433	
max. Earth dist.	-2918 Aug 14 j 12:13		6.39959 AU	conjunction	-2912 Feb 08 j 05:27	26°₹14'52	-1°-11'-37
max. Latin dist.	-2710 Aug 23 j 13.10	7 062130	0.37737 AO	minimum elong	-2912 Feb 08 j 05:24		1°11'43
conjunction	-2918 Aug 27 j 07:01	9° Ω 49'29	1°18'35	max. Earth dist.	-2912 Feb 09 j 17:40		
minimum elong	-2918 Aug 27 j 07:00	9° Ω 49'28	1°18'40	morning rise	-2912 Feb 21 j 15:44		0.55005110
morning rise	-2918 Sep 08 j 22:52		1 10 10		-2912 Feb 23 j 23:33	0°≈	
	-2918 Sep 19 j 23:55				-2912 May 06 j 18:26		
retrograde	-2917 Jan 07 j 16:02			retrograde	-2912 Jul 02 j 19:12		
opposition	-2917 Mar 09 j 08:47		1°56'34	· ·	-2912 Aug 29 j 22:58		
min. Earth dist.	-2917 Mar 10 j 16:25	24° Ω 38'58	4.37611 AU	min. Earth dist.	-2912 Aug 30 j 10:50		4.01147 AU
direct	-2917 May 11 j 00:33	19° Ω 48'23		opposition	-2912 Aug 31 j 16:42	14° ≈ 45'51	-1°-57'-34
	-2917 Aug 08 j 22:10	0° m)		direct	-2912 Oct 28 j 14:49	9° ≈ 50'16	
evening set	-2917 Sep 14 j 10:49	7° m 43'34			-2912 Dec 25 j 03:34	15° ≈	
max. Earth dist.	-2917 Sep 25 j 03:08	10°M)06'40	6.33667 AU	evening set	-2911 Mar 03 j 01:58	29° ≈ 10′50	
					-2911 Mar 06 j 13:58	0° ∀	
conjunction	1 7	10°M/32'11	1°15'36				
minimum elong	-2917 Sep 27 j 00:43	10° My $32'12$	1°15'37	conjunction	-2911 Mar 16 j 15:58	2°) 22′12	-1°-17'-28
morning rise	-2917 Oct 09 j 12:57	13° m 20'08		minimum elong	-2911 Mar 16 j 16:00		1°17'31
	-2916 Jan 15 j 09:07	0∘ ⊽		max. Earth dist.	-2911 Mar 18 j 16:56	2° ∺ 50'59	6.04181 AU
retrograde	-2916 Feb 09 j 06:15	0° £ 57'03		morning rise	-2911 Mar 30 j 08:30	5°) 34'43	
	-2916 Mar 05 j 04:36			retrograde	-2911 Aug 07 j 14:33		
opposition	-2916 Apr 10 j 05:30			min. Earth dist.	-2911 Oct 04 j 21:25		4.08816 AU
min. Earth dist.	-2916 Apr 11 j 12:26		4.28819 AU	opposition	-2911 Oct 06 j 03:06		-1°-42'-51
direct	-2916 Jun 11 j 06:39	-		direct	-2911 Dec 03 j 13:44		
	-2916 Sep 01 j 00:21	0∘ ʊ			-2910 Mar 20 j 12:04	0°Υ 4°Ω21107	
evening set	-2916 Oct 14 j 19:02		C 22124 ATT	evening set	-2910 Apr 08 j 22:02	4°'Y'21'0/	
max. Earth dist.	-2916 Oct 25 j 20:42	11°4452′59	6.23124 AU	agniumation	2010 Apr. 22: 16:22	7° Ƴ 29'55	0°-54'-43
conjunction	2016 Oat 27:00:46	120 0 12142	0°50'17	conjunction	-2910 Apr 22 j 16:23	7 γ 29 33 7° γ 29'57	0°54'43
minimum elong	-2916 Oct 27 j 08:46 -2916 Oct 27 j 08:49		0°50'16	minimum elong max. Earth dist.	-2910 Apr 22 j 16:27 -2910 Apr 24 j 11:22	7° Υ 54'31	6.14256 AU
morning rise	-2916 Nov 08 j 22:09		0 30 10	morning rise	-2910 Apr 24 j 11:22 -2910 May 06 j 11:22	10° Υ 38'50	0.14230 AU
morning 1130	-2915 Jan 24 j 06:34			retrograde	-2910 Sep 10 j 07:21	29° Y 29'39	
retrograde	-2915 Mar 14 j 17:41	3°M25'34		opposition	-2910 Nov 08 j 18:27		0°-52'-46
renograde	-2915 May 04 j 09:58			min. Earth dist.	-2910 Nov 07 j 21:11	24° Y 33'53	4.20181 AU
opposition	-2915 May 14 j 18:26	28° ≏ 41'26	0°45'12	direct	-2909 Jan 07 j 06:16	19° Ƴ 24'59	
min. Earth dist.	-2915 May 15 j 14:48	28° ≙ 34'55	4.17146 AU		-2909 Apr 07 j 00:52	0°8	
direct	-2915 Jul 14 j 15:18	23° ≏ 46'18		evening set	-2909 May 14 j 10:46	7° 8 57'02	
	-2915 Sep 18 j 08:30	0° M ₊		-			
evening set	-2915 Nov 16 j 08:52	12°M26'04		conjunction	-2909 May 28 j 03:55	11° 8 00'21	0°-14'-9
	-2915 Nov 27 j 07:05	15°M		minimum elong	-2909 May 28 j 03:56	11° 8 00'21	0°14'07
max. Earth dist.	-2915 Nov 28 j 08:44	15°ML15'07	6.11404 AU	behind sun begin	-2909 May 28 j 00:07		
				behind sun end	-2909 May 28 j 07:44	11° 8 02'28	
conjunction	-2915 Nov 29 j 02:09	15°M25'22	0°08'04	max. Earth dist.	-2909 May 29 j 00:19		6.26062 AU
minimum elong	-2915 Nov 29 j 02:09	15°M25'22	0°08'00	morning rise	-2909 Jun 10 j 19:51		
behind sun begin	-2915 Nov 28 j 18:57	15°M21'09			-2909 Jun 15 j 03:33		
behind sun end	-2915 Nov 29 j 09:20	15°M29'35			-2909 Sep 07 j 08:37	$\Pi^{\circ}0$	
morning rise	-2915 Dec 11 j 21:06	18°M25'41		asc. node	-2909 Oct 01 j 08:47	1° Ⅱ 43'06	
	-2914 Feb 03 j 12:09	0° ∡ ¹		retrograde	-2909 Oct 12 j 06:47	1° Ⅱ 54'47	
desc. node	-2914 Feb 04 j 14:13	0° ∡ 12'06			-2909 Nov 15 j 23:17		
retrograde	-2914 Apr 20 j 01:56	7° ∡ 754'04	00.24:-	opposition	-2909 Dec 10 j 20:36		0°11'32
opposition	-2914 Jun 19 j 21:39	2° 🖈 56'24	0°-24'-7	min. Earth dist.	-2909 Dec 10 j 15:35		4.31320 AU
min. Earth dist.	-2914 Jun 19 j 23:24	2° х 55′50	4.06280 AU	direct	-2908 Feb 09 j 16:58		
direct	-2914 Jul 14 j 03:27			avanist	-2908 Apr 28 j 04:23	0°Ⅱ 9°Ⅱ59'01	
direct	-2914 Aug 18 j 09:19	28°M03'05		evening set	-2908 Jun 16 j 06:46	э ц э901	

•			•	UT), Astrodienst			ige 44
	nical year style is used: Th						
conjunction	-2908 Jun 29 j 17:41			conjunction	-2903 Dec 03 j 20:33		
minimum elong	-2908 Jun 29 j 17:39			minimum elong	-2903 Dec 03 j 20:34		0°01'21
max. Earth dist.	-2908 Jun 29 j 13:07		6.35716 AU	behind sun begin	-2903 Dec 03 j 12:31	20°M17'00	
morning rise	-2908 Jul 13 j 01:38			behind sun end	-2903 Dec 04 j 04:38	20°M26'27	6 10120 ATT
	-2908 Sep 27 j 08:25	0.00		max. Earth dist.	-2903 Dec 03 j 08:35	20°M14'40	6.10138 AU
retrograde	-2908 Nov 11 j 02:19	3°502'18		desc. node	-2903 Dec 15 j 08:41	23°M04'27	
•,,•	-2908 Dec 26 j 06:06	30°RⅡ 200Ⅲ0€152	1000147	morning rise	-2903 Dec 16 j 16:16	23°M22'59	
opposition	-2907 Jan 10 j 00:58	28° I 106'53	1°09'47		-2902 Jan 14 j 18:56	0° ⊀ 7	
min. Earth dist.	-2907 Jan 10 j 11:36	28° I I03'24	4.38856 AU	retrograde	-2902 Apr 25 j 07:42		00 221 57
direct	-2907 Mar 12 j 23:25			opposition	-2902 Jun 25 j 01:26	7° ₹ 59'43	0°-33'-57
	-2907 May 24 j 15:53	0.00 100		min. Earth dist.	-2902 Jun 25 j 00:53	7° ₹ 59'53	4.05385 AU
evening set	-2907 Jul 18 j 14:08	10°954'56	C 40500 ATT	direct	-2902 Aug 23 j 09:37	3° ₹ 06'32	
max. Earth dist.	-2907 Jul 30 j 11:55	13°2030'37	6.40500 AU	evening set	-2902 Dec 25 j 17:17	22° × 14'33	
conjunction	-2907 Jul 31 j 15:53	13°6045'55	1°03'30	conjunction	-2901 Jan 07 j 17:40	25° √ 21'03	0°-44'-17
minimum elong	-2907 Jul 31 j 15:50	13°945'53	1°03'34	minimum elong	-2901 Jan 07 j 17:37		0°44'23
morning rise	-2907 Aug 13 j 14:28	16° © 35'18	1 03 34	max. Earth dist.	-2901 Jan 08 j 07:48		6.01946 AU
morning risc	-2907 Oct 24 j 00:58	0°Ω			-2901 Jan 20 j 21:10		0.01940 AU
ratrograda	-2907 Oct 24 j 00:58 -2907 Dec 11 j 19:37	0°87 3° Ω 31'49		morning rise	-2901 Jan 20 j 21:10 -2901 Jan 27 j 06:42	28° メ ・29°16	
retrograde	,			retrograda	-2901 Jan 27 j 06:42 -2901 Jun 01 j 17:52		
onnosition	-2906 Jan 30 j 12:34	30°Rூ 28°€30'14	1947'20	retrograde		18° 5 45'35	4 00100 ATT
opposition	-2906 Feb 10 j 03:10	28°539'14	1°47'30	min. Earth dist.	,		4.00188 AU
min. Earth dist.	-2906 Feb 11 j 04:24	28°931'07 23°936'50	4.40739 AU	opposition	\mathcal{E} 3	13°る43'27	-1°-33'-54
direct	-2906 Apr 13 j 18:08			direct	-2901 Sep 28 j 07:36	8° る 49'52	
	-2906 Jun 22 j 05:33	0°N		evening set	-2900 Jan 31 j 00:52	28° る 12'06	
evening set	-2906 Aug 18 j 20:47		C 20215 1 1 1 1		-2900 Feb 07 j 14:16	0° ≈	
max. Earth dist.	-2906 Aug 29 j 20:37	13° 6 (50'25	6.39217 AU		2000 F.1. 12:00 12	10 22127	10.141.10
		0		conjunction	-2900 Feb 13 j 08:43	1°≈22'37	-1°-14'-12
conjunction	-2906 Aug 31 j 14:41	14°Ω13'37		minimum elong	-2900 Feb 13 j 08:41	1°≈22'36	1°14'18
minimum elong	-2906 Aug 31 j 14:40	14°Ω13'36	1°19'36	max. Earth dist.	-2900 Feb 14 j 23:51	1° ≈ 45′59	6.00116 AU
	-2906 Sep 04 j 02:49	15° Ω		morning rise	-2900 Feb 26 j 19:47	4° ≈ 34'48	
morning rise	-2906 Sep 13 j 05:51	17° Ω 00'30			-2900 Apr 13 j 15:22	15° ≈	
	-2906 Nov 19 j 20:45	0° m)		retrograde	-2900 Jul 07 j 20:19	24°≈54'57	
retrograde	-2905 Jan 12 j 04:09	4° mp 08'35		min. Earth dist.	1 3	20° ≈ 00′06	4.02076 AU
	-2905 Mar 08 j 06:30	30°R Ω		opposition	-2900 Sep 05 j 15:58	19° ≈ 50′07	-1°-58'-8
opposition	-2905 Mar 13 j 21:37	29° Ω 17'06	1°55'44		J	15° R ≈	
min. Earth dist.	-2905 Mar 15 j 05:11		4.36487 AU	direct	-2900 Nov 02 j 16:07		
direct	-2905 May 15 j 11:23				-2900 Nov 10 j 04:54	15° ≈	
	-2905 Jul 19 j 09:17	0° ™					
evening set	-2905 Sep 18 j 20:05						
max. Earth dist.	-2905 Sep 29 j 14:16	14°M 39'22	6.32269 AU				
conjunction	2005 0 4 01 : 00 47	1.50 m. 02151	1012110				
	-2905 Oct 01 j 09:47	-	1°13'19				
minimum elong	-2905 Oct 01 j 09:49	15°M 03'52	1°13'19 1°13'20				
minimum elong morning rise	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49	15° M 03'52 17° M 52'18					
morning rise	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33	15° m 03'52 17° m 52'18 0° <u>മ</u>					
morning rise	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29	15° m 03'52 17° m 52'18 0° <u>a</u> 5° <u>a</u> 35'55	1°13'20				
retrograde opposition	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09	15° മ്മ 03'52 17° മ്മ 52'18 0° മ 5° മ35'55 0° മ43'47	1°13'20 1°30'45				
morning rise	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 16 j 06:11	15° № 03'52 17° № 52'18 0° Ω 5° Ω 35'55 0° Ω 43'47 0° Ω 34'14	1°13'20				
retrograde opposition min. Earth dist.	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 16 j 06:11 -2904 Apr 20 j 18:17	15° № 03'52 17° № 52'18 0° Ω 5° Ω 35'55 0° Ω 43'47 0° Ω 34'14 30° R №	1°13'20 1°30'45				
retrograde opposition	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 20 j 18:17 -2904 Jun 15 j 22:01	15° M 03'52 17° M 52'18 0° A 5° A 35'55 0° A 43'47 0° A 34'14 30° R M 25° M 46'19	1°13'20 1°30'45				
morning rise retrograde opposition min. Earth dist. direct	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 16 j 06:11 -2904 Apr 20 j 18:17 -2904 Jun 15 j 22:01 -2904 Aug 09 j 04:04	15° № 03'52 17° № 52'18 0° Ω 5° Ω 35'55 0° Ω 43'47 0° Ω 34'14 30° R № 25° № 46'19 0° Ω	1°13'20 1°30'45				
retrograde opposition min. Earth dist. direct evening set	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 20 j 18:17 -2904 Apr 20 j 18:17 -2904 Aug 09 j 04:04 -2904 Oct 19 j 07:35	15° № 03'52 17° № 52'18 0° № 5° № 35'55 0° № 43'47 0° № 34'14 30° № № 25° № 46'19 0° № 14° № 03'36	1°13'20 1°30'45 4.27242 AU				
morning rise retrograde opposition min. Earth dist. direct	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 16 j 06:11 -2904 Apr 20 j 18:17 -2904 Jun 15 j 22:01 -2904 Aug 09 j 04:04	15° № 03'52 17° № 52'18 0° № 5° № 35'55 0° № 43'47 0° № 34'14 30° № № 25° № 46'19 0° № 14° № 03'36	1°13'20 1°30'45				
retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 20 j 18:17 -2904 Jun 15 j 22:01 -2904 Oct 19 j 07:35 -2904 Oct 30 j 10:45	15° M 03'52 17° M 52'18 0° Ω 5° Ω 35'55 0° Ω 43'47 0° Ω 34'14 30° R M 25° M 46'19 0° Ω 14° Ω 03'36 16° Ω 37'08	1°13'20 1°30'45 4.27242 AU 6.21520 AU				
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 20 j 18:17 -2904 Aug 09 j 04:04 -2904 Oct 19 j 07:35 -2904 Oct 30 j 10:45	15° M 03'52 17° M 52'18 0° A 5° A 35'55 0° A 43'47 0° A 34'14 30° R M 25° M 46'19 0° A 14° A 03'36 16° A 37'08	1°13'20 1°30'45 4.27242 AU 6.21520 AU 0°45'07				
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 20 j 18:17 -2904 Jun 15 j 22:01 -2904 Oct 19 j 07:35 -2904 Oct 30 j 10:45 -2904 Oct 31 j 21:28 -2904 Oct 31 j 21:30	15° M 03'52 17° M 52'18 0° \(\Omega\) 5° \(\Omega\) 35'55 0° \(\Omega\) 43'47 0° \(\Omega\) 34'14 30° R M 25° M 46'19 0° \(\Omega\) 14° \(\Omega\) 03'36 16° \(\Omega\) 37'08 16° \(\Omega\) 57'09 16° \(\Omega\) 57'11	1°13'20 1°30'45 4.27242 AU 6.21520 AU				
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 20 j 18:17 -2904 Aug 09 j 04:04 -2904 Oct 19 j 07:35 -2904 Oct 31 j 21:28 -2904 Oct 31 j 21:28 -2904 Oct 31 j 21:30 -2904 Nov 13 j 11:34	15° M 03'52 17° M 52'18 0° \(\Omega\) 5° \(\Omega\) 35'55 0° \(\Omega\) 43'47 0° \(\Omega\) 34'14 30° R M 25° M 46'19 0° \(\Omega\) 14° \(\Omega\) 03'36 16° \(\Omega\) 37'08 16° \(\Omega\) 57'09 16° \(\Omega\) 57'11 19° \(\Omega\) 51'00	1°13'20 1°30'45 4.27242 AU 6.21520 AU 0°45'07				
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 20 j 18:17 -2904 Apr 20 j 18:17 -2904 Jun 15 j 22:01 -2904 Oct 19 j 07:35 -2904 Oct 30 j 10:45 -2904 Oct 31 j 21:28 -2904 Oct 31 j 21:30 -2904 Nov 13 j 11:34 -2904 Dec 30 j 21:04	15° M 03'52 17° M 52'18 0° A 5° A 35'55 0° A 43'47 0° A 34'14 30° M 25° M 46'19 0° A 14° A 03'36 16° A 37'08 16° A 57'09 16° A 57'11 19° A 51'00 0° M	1°13'20 1°30'45 4.27242 AU 6.21520 AU 0°45'07				
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 20 j 18:17 -2904 Apr 20 j 18:17 -2904 Jun 15 j 22:01 -2904 Oct 19 j 07:35 -2904 Oct 30 j 10:45 -2904 Oct 31 j 21:28 -2904 Oct 31 j 21:30 -2904 Nov 13 j 11:34 -2904 Dec 30 j 21:04 -2903 Mar 19 j 17:40	15° M 03'52 17° M 52'18 0° A 5° A 35'55 0° A 43'47 0° A 34'14 30° M 25° M 46'19 0° A 14° A 03'36 16° A 37'08 16° A 57'09 16° A 51'00 0° M 8° M 27'57	1°13'20 1°30'45 4.27242 AU 6.21520 AU 0°45'07 0°45'05				
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 20 j 18:17 -2904 Apr 20 j 18:17 -2904 Jun 15 j 22:01 -2904 Oct 19 j 07:35 -2904 Oct 30 j 10:45 -2904 Oct 31 j 21:28 -2904 Oct 31 j 21:30 -2904 Nov 13 j 11:34 -2904 Dec 30 j 21:04 -2903 Mar 19 j 17:40 -2903 May 19 j 18:47	15° M03'52 17° M52'18 0° \(\Omega\) 5° \(\Omega\) 35'55 0° \(\Omega\) 43'47 0° \(\Omega\) 34'14 30° \(\Omega\) 14° \(\Omega\) 3'36 16° \(\Omega\) 37'08 16° \(\Omega\) 57'09 16° \(\Omega\) 57'00 0° \(\Omega\) 8° \(\Omega\) 27'57 3° \(\Omega\) 33'22	1°13'20 1°30'45 4.27242 AU 6.21520 AU 0°45'07 0°45'05				
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 20 j 18:17 -2904 Apr 20 j 18:17 -2904 Jun 15 j 22:01 -2904 Oct 19 j 07:35 -2904 Oct 30 j 10:45 -2904 Oct 31 j 21:28 -2904 Oct 31 j 21:30 -2904 Nov 13 j 11:34 -2904 Dec 30 j 21:04 -2903 Mar 19 j 17:40 -2903 May 19 j 18:47 -2903 May 20 j 12:04	15° M03'52 17° M52'18 0° \(\Omega\) 5° \(\Omega\) 35'55 0° \(\Omega\) 43'47 0° \(\Omega\) 34'14 30° R M 25° M 46'19 0° \(\Omega\) 14° \(\Omega\) 37'08 16° \(\Omega\) 37'08 16° \(\Omega\) 57'09 16° \(\Omega\) 57'11 19° \(\Omega\) 51'00 0° \(\Omega\) 8° M27'57 3° M33'22 3° M27'49	1°13'20 1°30'45 4.27242 AU 6.21520 AU 0°45'07 0°45'05				
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 20 j 18:17 -2904 Apr 20 j 18:17 -2904 Aug 09 j 04:04 -2904 Oct 19 j 07:35 -2904 Oct 30 j 10:45 -2904 Oct 31 j 21:28 -2904 Oct 31 j 21:30 -2904 Nov 13 j 11:34 -2904 Dec 30 j 21:04 -2903 Mar 19 j 17:40 -2903 May 20 j 12:04 -2903 Jun 19 j 20:00	15° M03'52 17° M52'18 0° \(\Omega\) 5° \(\Omega\) 35'55 0° \(\Omega\) 43'47 0° \(\Omega\) 34'14 30° R M 25° M 46'19 0° \(\Omega\) 14° \(\Omega\) 37'08 16° \(\Omega\) 37'08 16° \(\Omega\) 57'11 19° \(\Omega\) 51'00 0° M 8° M27'57 3° M33'22 3° M27'49 30° R \(\Omega\)	1°13'20 1°30'45 4.27242 AU 6.21520 AU 0°45'07 0°45'05				
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 20 j 18:17 -2904 Apr 20 j 18:17 -2904 Aug 09 j 04:04 -2904 Oct 19 j 07:35 -2904 Oct 30 j 10:45 -2904 Oct 31 j 21:28 -2904 Oct 31 j 21:30 -2904 Nov 13 j 11:34 -2904 Dec 30 j 21:04 -2903 Mar 19 j 17:40 -2903 May 20 j 12:04 -2903 Jun 19 j 20:00 -2903 Jul 19 j 11:20	15° M 03'52 17° M 52'18 0° \(\Omega\) 5° \(\Omega\) 35'55 0° \(\Omega\) 43'47 0° \(\Omega\) 34'14 30° R M 25° M 46'19 0° \(\Omega\) 14° \(\Omega\) 37'08 16° \(\Omega\) 37'08 16° \(\Omega\) 57'09 16° \(\Omega\) 57'00 0° M 8° M 27'57 3° M 33'22 3° M 27'49 30° R \(\Omega\) 28° \(\Omega\) 38'35	1°13'20 1°30'45 4.27242 AU 6.21520 AU 0°45'07 0°45'05				
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 20 j 18:17 -2904 Apr 20 j 18:17 -2904 Aug 09 j 04:04 -2904 Oct 19 j 07:35 -2904 Oct 30 j 10:45 -2904 Oct 31 j 21:28 -2904 Oct 31 j 21:28 -2904 Oct 31 j 21:30 -2904 Nov 13 j 11:34 -2904 Dec 30 j 21:04 -2903 Mar 19 j 17:40 -2903 May 20 j 12:04 -2903 Jun 19 j 20:00 -2903 Jul 19 j 11:20 -2903 Aug 17 j 21:20	15° M 03'52 17° M 52'18 0° A 5° A 35'55 0° A 43'47 0° A 34'14 30° R M 25° M 46'19 0° A 14° A 03'36 16° A 57'09 16° A 57'09 16° A 57'11 19° A 51'00 0° M 8° M 27'57 3° M 33'22 3° M 27'49 30° R A 28° A 38'35 0° M	1°13'20 1°30'45 4.27242 AU 6.21520 AU 0°45'07 0°45'05				
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-2905 Oct 01 j 09:49 -2905 Oct 13 j 21:49 -2905 Dec 13 j 04:33 -2904 Feb 14 j 00:29 -2904 Apr 15 j 00:09 -2904 Apr 20 j 18:17 -2904 Apr 20 j 18:17 -2904 Aug 09 j 04:04 -2904 Oct 19 j 07:35 -2904 Oct 30 j 10:45 -2904 Oct 31 j 21:28 -2904 Oct 31 j 21:30 -2904 Nov 13 j 11:34 -2904 Dec 30 j 21:04 -2903 Mar 19 j 17:40 -2903 May 20 j 12:04 -2903 Jun 19 j 20:00 -2903 Jul 19 j 11:20	15° M 03'52 17° M 52'18 0° A 5° A 35'55 0° A 43'47 0° A 34'14 30° R M 25° M 46'19 0° A 14° A 03'36 16° A 57'09 16° A 57'09 16° A 57'11 19° A 51'00 0° M 8° M 27'57 3° M 33'22 3° M 27'49 30° R A 28° A 38'35 0° M 15° M	1°13'20 1°30'45 4.27242 AU 6.21520 AU 0°45'07 0°45'05				

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2900 in astronomical counting style is the year 2901 BCE in historical counting style. -2900 Jan 31 j 00:52 28° ₹ 12'06 retrograde -2896 Nov 15 i 10:11 7°9526'00 evening set -2900 Feb 07 j 14:16 -2895 Jan 14 j 08:59 2°931'02 1°16'30 opposition -2895 Jan 14 j 22:32 min. Earth dist. 2°526'37 4.39226 AU -2895 Feb 03 j 14:10 30°RⅢ -2900 Feb 13 j 08:43 1°≈22'37 -1°-14'-12 conjunction -2895 Mar 17 j 11:11 27°**Д**27'35 -2900 Feb 13 j 08:41 minimum elong 1°≈22'36 1°14'18 direct -2900 Feb 14 j 23:51 max. Earth dist. 1°≈45'59 6.00116 AU -2895 Apr 28 j 14:54 0ಂತಾ -2895 Jul 23 j 00:23 15°5518'44 4°≈34'48 morning rise -2900 Feb 26 j 19:47 evening set -2900 Apr 13 j 15:22 15°≈ max. Earth dist. -2895 Aug 03 j 19:37 17°553'08 6.40492 AU 24°≈54'57 retrograde -2900 Jul 07 j 20:19 min. Earth dist. -2900 Sep 04 j 10:33 20°**≈**00′06 4.02076 AU conjunction -2895 Aug 05 j 01:06 18°9509'15 1°06'55 opposition -2900 Sep 05 j 15:58 19°**≈**50'07 -1°-58'-8 minimum elong -2895 Aug 05 j 01:03 18°**©**09'14 1°07'00 -2900 Oct 26 j 02:58 -2895 Aug 17 j 22:25 15°R≈ morning rise 20°958'09 -2895 Oct 01 j 03:43 direct -2900 Nov 02 j 16:07 14°≈54'05 $0^{\circ}\Omega$ -2900 Nov 10 j 04:54 15°≈ retrograde -2895 Dec 16 j 03:03 7°**Ω**55'14 -2899 Feb 17 j 21:24 0°**)**€ opposition -2894 Feb 14 j 12:52 3°**Ω**02'50 1°50'31 evening set -2899 Mar 08 j 04:07 4°**)** 11'59 min. Earth dist. -2894 Feb 15 j 14:13 2°**Ω**54'41 4.40389 AU -2894 Mar 12 j 01:54 30°Rூ conjunction -2899 Mar 21 j 18:57 7°**)** €23'07 -1°-15'-52 direct -2894 Apr 18 j 03:37 28°500'41 7°**)**€23'09 minimum elong -2899 Mar 21 j 18:59 1°15'55 -2894 May 25 j 09:58 $0^{\circ}\Omega$ max. Earth dist. -2899 Mar 23 j 20:18 7°**升**52'01 6.05432 AU -2894 Aug 19 i 09:32 15°**Ω** morning rise -2899 Apr 04 j 12:04 10° **)** 35'18 evening set -2894 Aug 23 j 05:19 15° Ω 50'06 -2899 Jul 29 i 21:54 $0^{\circ}\Upsilon$ max. Earth dist. -2894 Sep 03 i 04:04 18° Ω14'47 6.38541 AU -2899 Aug 12 i 07:55 0°**Y**17'48 retrograde -2899 Aug 25 j 15:19 30°R₩ conjunction -2894 Sep 04 i 22:20 18° Ω38'09 1°20'00 -2899 Oct 10 j 20:05 25° ¥ 12'51 -1°-37'-38 -2894 Sep 04 j 22:19 18° Ω38'08 1°20'03 opposition minimum elong -2899 Oct 09 j 14:48 25°\(\mathbf{X}\)22'51 4.10262 AU -2894 Sep 17 j 12:47 $21^{\circ}\Omega 25'01$ min. Earth dist. morning rise -2899 Dec 08 j 08:33 20° ¥ 13'34 -2894 Oct 28 j 20:15 0° mg direct -2898 Mar 02 j 08:51 $0^{\circ}\Upsilon$ -2893 Jan 16 j 16:58 retrograde 8° m 36'37 9°Υ10'22 -2898 Apr 13 j 21:03 -2893 Mar 18 j 11:13 3° m 45'08 1°54'10 evening set opposition -2893 Mar 19 j 19:35 min. Earth dist. 3° Mp 34'50 4.35513 AU -2898 Apr 27 j 15:29 12°**Υ**18'35 0°-49'-53 -2893 Apr 20 j 22:39 30°R**Ω** conjunction -2898 Apr 27 j 15:32 12°**Υ**18'37 0°49'52 -2893 May 20 j 00:43 28°**Ω**45'12 direct minimum elong -2898 Apr 29 j 06:17 12°**Υ**'40'43 6.15780 AU -2893 Jun 18 j 02:13 max. Earth dist. 0° m -2898 May 11 j 10:32 15°**Y**26'49 -2893 Sep 23 j 04:55 16° mp 44'52 morning rise evening set -2898 Jul 24 j 07:41 0°**8** -2893 Oct 03 j 22:43 19° m 09'43 max. Earth dist. 6.31058 AU -2898 Sep 14 j 19:27 retrograde 4°**8**09'36 -2893 Oct 05 j 18:20 19° m 34'19 1°10'34 -2898 Nov 06 j 17:09 30°R**Y** conjunction min. Earth dist. -2898 Nov 12 j 11:51 29°**Υ**13'16 4.21627 AU minimum elong -2893 Oct 05 j 18:22 19° m 34'20 1°10'35 -2898 Nov 13 j 06:15 29°**Y**07'02 0°-44'-17 morning rise -2893 Oct 18 j 06:26 22° m 23'17 opposition direct -2897 Jan 11 j 22:47 24°**Y**05'01 -2893 Nov 22 j 17:09 0∘**⊽** -2897 Mar 17 j 09:45 0°**႘** retrograde -2892 Feb 18 j 17:15 10°**△**12'54 -2897 May 19 j 04:46 12°**8**33'56 -2892 Apr 19 j 18:24 5°**£**20'27 1°24'39 evening set opposition -2897 May 30 j 03:57 15°**8** min. Earth dist. -2892 Apr 20 j 22:27 5°**≙**11'31 4.25851 AU -2892 Jun 20 j 12:34 0°**೨**23′20 direct -2897 Jun 01 j 21:34 15°**8**36'31 0°-8'-2 conjunction evening set -2892 Oct 23 j 19:12 18°**£**43'18 -2897 Jun 01 j 21:35 15°**8**36'32 minimum elong 0°07'59 max. Earth dist. -2892 Nov 04 i 02:31 21°**2**19'41 6.20067 AU behind sun begin -2897 Jun 01 j 14:12 15° \(\dag{3}2'27 \) behind sun end -2897 Jun 02 j 04:58 15° 840'37 conjunction -2892 Nov 05 i 09:32 21°**2**37'37 0°39'41 max. Earth dist. -2897 Jun 02 j 15:44 15° 846'38 6.27347 AU minimum elong -2892 Nov 05 i 09:34 21°**2**37'39 0°39'39 -2897 Jun 15 j 12:34 18°**8**38'05 -2892 Nov 18 i 00:02 24° \(\Omega\) 32'18 morning rise morning rise -2897 Aug 10 j 18:15 $\Pi^{\circ}0$ -2892 Dec 12 j 08:14 o∘m. -2897 Aug 12 j 07:13 0°**Ⅱ**15'42 -2891 Mar 24 j 18:06 13°M 16'43 asc. node retrograde -2897 Oct 16 j 13:47 6°**Ⅲ**24'08 opposition -2891 May 24 j 18:01 retrograde 8°M21'44 0°26'43 4.14199 AU opposition -2897 Dec 15 j 05:07 1°**П**25'25 0°20'18 min. Earth dist. -2891 May 25 j 09:58 8°M16'36 -2891 Jul 24 j 07:02 min. Earth dist. -2897 Dec 15 j 01:34 1°**П**26'36 4.32355 AU direct 3°M27'15

-2891 Oct 24 j 20:04

-2891 Oct 25 j 11:01 15°ML07'59

-2891 Nov 25 j 19:05 22°M13'23

-2891 Dec 08 j 13:50 25°M 14'25

-2891 Dec 08 j 06:03 25°ML09'50

-2891 Dec 08 j 21:37 25°ML19'00

-2891 Dec 08 j 03:54 25°ML08'33

-2891 Dec 21 j 10:40 28°M 16'42

desc. node

evening set

conjunction

minimum elong

behind sun end

max. Earth dist.

morning rise

behind sun begin

15°M

0°05'23

6.08844 AU

-2891 Dec 08 j 13:50 25°ML14'25 0°-5'-18

-2897 Dec 26 j 01:29 30°R**♂**

-2896 Apr 04 j 13:43

-2896 Sep 03 j 08:48

direct

evening set

conjunction

minimum elong

max. Earth dist.

morning rise

-2896 Feb 14 j 04:21 26°**8**22'01

-2896 Jun 20 j 20:30 14°**Ⅲ**27'00

-2896 Jul 04 j 06:06 17°**Ⅲ**22'53

-2896 Jul 03 j 20:57 17°**I**I17'52

-2896 Jul 17 j 13:00 20°**Ⅲ**17'18

-2896 Jul 04 j 06:08 17°**Ⅲ**22'54 0°34'58

 $0^{\circ}\Pi$

0°35'03

6.36428 AU

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2891 in astronomical counting style is the year 2892 BCE in historical counting style. -2891 Dec 28 i 19:23 0°*⊼* -2885 Jul 21 i 16:03 $\Pi^{\circ}0$ -2890 Apr 30 j 10:32 17°**尽** 58'30 -2885 Oct 20 j 23:55 10°**Д**59'47 retrograde retrograde -2890 Jun 30 j 03:59 12°**₹**'59'45 0°-43'-31 -2885 Dec 19 j 16:06 6°**耳**01'39 0°29'09 opposition opposition -2890 Jun 29 j 23:55 13° ₹ 01'05 4.04356 AU -2885 Dec 19 j 14:54 min. Earth dist. min. Earth dist. 6°**П**02'02 4.33580 AU -2890 Aug 28 j 06:49 8°**≯**06'38 -2884 Feb 18 j 20:07 direct direct 0°**Ⅲ**58′12 -2890 Dec 30 j 15:47 27° ₹ 17'23 -2884 Jun 25 j 11:57 19°**耳**00'30 evening set evening set -2889 Jan 11 j 00:06 0ºಕ -2884 Jul 08 j 20:31 21°**Ⅲ**55'31 0°40'22 conjunction -2884 Jul 08 j 20:28 21°**Ц**55'29 0°40'27 conjunction -2889 Jan 12 j 17:12 0°る24'37 0°-49'-45 minimum elong minimum elong -2889 Jan 12 j 17:09 0°る24'35 0°49'51 max. Earth dist. -2884 Jul 08 j 10:18 21°**Ⅱ**49'55 6.37468 AU max. Earth dist. -2889 Jan 13 j 11:42 0°**る**35'41 6.01266 AU morning rise -2884 Jul 22 j 01:50 24° **1**48'54 -2889 Jan 25 j 21:37 -2884 Aug 15 j 12:31 morning rise 3°₹33'33 0ಂತಾ -2889 Jun 06 j 23:13 23°₹53'13 -2884 Nov 19 j 16:57 11°553'46 retrograde retrograde min. Earth dist. -2889 Aug 05 j 07:52 18°る57'34 3.99941 AU opposition -2883 Jan 18 j 18:28 6°959'15 1°22'49 opposition -2889 Aug 06 j 04:39 18°**る**50'37 -1°-39'-49 min. Earth dist. -2883 Jan 19 j 08:37 6°954'39 4.40044 AU 13°**る**56'47 direct -2889 Oct 03 j 09:23 direct -2883 Mar 21 j 23:03 1°956'01 -2888 Jan 21 j 22:44 evening set -2883 Jul 27 j 11:01 19°544'56 evening set -2888 Feb 05 j 03:58 3°≈20'02 max. Earth dist. -2883 Aug 08 j 02:04 22°517'03 6.41020 AU conjunction -2888 Feb 18 j 12:51 6°≈30'55 -1°-16'-14 conjunction -2883 Aug 09 j 10:16 22°534'40 minimum elong -2888 Feb 18 j 12:50 6°≈30'54 1°16'20 minimum elong -2883 Aug 09 j 10:14 22°534'39 max. Earth dist. -2888 Feb 20 i 06:21 6°≈55'38 6.00303 AU morning rise -2883 Aug 22 j 06:28 25°522'52 morning rise -2888 Mar 03 i 00:57 9°≈43'26 -2883 Sep 12 i 23:21 $0^{\circ}\Omega$ -2888 Mar 25 j 20:35 15°**≈** retrograde -2883 Dec 20 j 11:37 12° Ω 18'52 -2888 Jul 09 j 07:14 0°**)**€ -2882 Feb 18 j 22:44 7°**Ω**26'41 1°52'51 opposition -2888 Jul 12 j 21:55 0°\01'17 min. Earth dist. -2882 Feb 20 j 02:01 7°**Ω**17'56 4.40602 AU retrograde -2888 Jul 16 j 12:10 30°R≈ -2882 Apr 22 j 16:11 direct 2°**Ω**24'46 -2888 Sep 09 j 09:14 25°≈06'41 4.02697 AU -2882 Aug 03 j 02:01 15°**Ω** min. Earth dist. -2888 Sep 10 j 15:42 24°≈56'19 -1°-57'-52 evening set -2882 Aug 27 j 12:27 20° Ω 12'54 opposition -2888 Nov 07 j 15:24 19°≈59'53 max. Earth dist. -2882 Sep 07 j 10:06 22°**Ω**37'05 direct 6.38412 AU -2887 Jan 30 j 10:27 0°**₩** -2887 Mar 13 j 08:12 -2882 Sep 09 j 04:43 23° Ω00'39 1°20'01 9°**)** 16′34 conjunction evening set -2882 Sep 09 j 04:43 23°**ん**00'39 1°20'03 minimum elong -2882 Sep 21 j 18:23 25°**Ω**47'16 -2887 Mar 26 j 23:43 12° **★** 27'37 -1°-13'-42 conjunction morning rise -2887 Mar 26 j 23:45 12° **★**27'39 1°13'45 -2882 Oct 11 j 06:28 0° Mg minimum elong -2887 Mar 28 j 23:19 12° **★** 55'25 6.06409 AU -2881 Jan 21 j 01:15 13° Mp 00'41 max. Earth dist. retrograde -2887 Apr 09 j 17:33 15°**米** 39'37 -2881 Mar 22 j 22:39 8° m 09'07 1°51'55 morning rise opposition -2887 Jun 18 j 14:29 $0^{\circ}\Upsilon$ min. Earth dist. -2881 Mar 24 j 06:15 7° m 59'03 4.35045 AU retrograde -2887 Aug 17 j 03:22 5°**Y**15'43 direct -2881 May 24 j 10:27 3°m/09'30 min. Earth dist. -2887 Oct 14 j 11:06 0°**Υ**20'30 4.11472 AU evening set -2881 Sep 27 j 11:06 21° Mp 09'17 opposition -2887 Oct 15 j 15:04 0°**Υ**10'56 -1°-31'-40 max. Earth dist. -2881 Oct 08 j 05:46 23° Mp 34'56 6.30288 AU -2887 Oct 16 j 23:05 30°R € -2887 Dec 13 j 06:50 25° **米** 11'14 -2881 Oct 10 j 00:15 23° My 58'56 1°07'28 direct conjunction -2886 Feb 07 j 17:06 -2881 Oct 10 j 00:18 23° m 58'58 $0^{\circ}\Upsilon$ minimum elong -2886 Apr 18 j 22:18 14°**Y**05'21 -2881 Oct 22 j 12:17 26° Mp 48'13 evening set morning rise -2881 Nov 05 j 21:49 0°**♀** -2886 May 02 j 17:04 17°**Υ**13'05 0°-44'-35 conjunction retrograde -2880 Feb 23 i 08:13 14° **2**42'31 -2886 May 02 j 17:08 17°**Υ**13'07 0°44'34 minimum elong opposition -2880 Apr 24 i 09:26 9°**-**49′50 1°18′09 $-2886 \text{ May } 04 \text{ j } 07:05 \quad 17^{\circ} \Upsilon 34'42 \quad 6.17151 \text{ AU}$ max. Earth dist. min. Earth dist. -2880 Apr 25 j 13:49 9°**2**40'48 4.24787 AU -2886 May 16 i 11:48 20° γ'20'37 direct -2880 Jun 25 i 02:01 4°**£**53'01 morning rise -2886 Jun 30 j 23:33 0°8 evening set -2880 Oct 28 j 03:15 23° **2**14'45 -2886 Sep 19 j 09:39 8°855'50 max. Earth dist. -2880 Nov 08 j 11:25 25°**♀**52'04 retrograde 6.18806 AU -2886 Nov 17 j 20:28 3°**8**53'50 0°-35'-19 opposition min. Earth dist. -2886 Nov 17 j 03:23 3°**8**59'36 4.23031 AU conjunction -2880 Nov 09 j 17:54 26° **2**09'45 0°34'11 -2886 Dec 21 j 02:43 30°R℃ minimum elong -2880 Nov 09 j 17:57 26°**೨**09'46 0°34'09 -2885 Jan 16 j 16:25 28°**Y**51'39 direct morning rise -2880 Nov 22 j 09:08 29°**£**05'15 0° 8 -2885 Feb 12 j 15:13 -2880 Nov 26 j 08:23 0°M -2885 May 13 j 14:12 15°**8** -2879 Feb 13 j 01:21 15°M -2885 May 24 j 01:42 17°**8**17'35 -2879 Mar 29 j 12:32 17°M 56'38 evening set retrograde -2879 May 13 j 17:03 15°RML -2885 Jun 06 j 17:37 20°**8**19'17 0°-1'-41 -2879 May 29 j 13:02 13°ML01'10 0°17'31 conjunction opposition minimum elong -2885 Jun 06 j 17:37 20°**8**19'17 0°01'38 min. Earth dist. -2879 May 30 j 02:28 12°M 56'51 4.12823 AU behind sun begin -2885 Jun 06 j 09:18 20°**8**14'42 direct -2879 Jul 28 j 20:44 8°M06'53 behind sun end -2885 Jun 07 j 01:56 20°**8**23'53 desc. node -2879 Sep 06 j 11:22 10°M₃33'22 max. Earth dist. -2885 Jun 07 j 07:23 20°**8**26'55 6.28696 AU -2879 Oct 05 j 17:52 15°M -2885 Jun 20 j 07:52 23°**8**19'56 -2879 Nov 30 j 08:17 26°M56'27 morning rise evening set

-2885 Jun 21 j 12:39 23°**8**35'46

asc. node

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2879 in astronomical counting style is the year 2880 BCE in historical counting style. -2879 Dec 13 j 03:54 29°M 58'25 0°-11'-38 max. Earth dist. -2873 Jun 12 j 00:44 25°806'00 6.30156 AU conjunction -2879 Dec 13 j 03:53 29°ML58'24 -2873 Jun 25 j 01:55 27°**8**58'59 minimum elong 0°11'43 morning rise -2879 Dec 12 j 22:07 29° ML55'00 -2873 Jul 04 j 07:48 behind sun begin 0°П -2873 Oct 25 j 09:05 15°**Ⅲ**32'15 behind sun end -2879 Dec 13 j 09:39 0°**∡**'01'48 retrograde -2879 Dec 12 j 21:16 29°ML54'30 6.07486 AU -2873 Dec 24 j 02:25 10°**II**34'37 max. Earth dist. opposition 0°37'48 0°**∡**¹ -2873 Dec 24 j 03:03 10° **II** 34'24 4.34873 AU -2879 Dec 13 j 06:33 min. Earth dist. -2872 Feb 23 j 10:41 morning rise -2879 Dec 26 j 01:35 3°**₹**01'41 direct 5°**Ⅲ**31′07 retrograde -2878 May 05 j 11:59 22°**₹**50'46 evening set -2872 Jun 30 j 02:07 23°**Ⅲ**30'18 opposition -2878 Jul 05 j 02:42 17°**尽**51'30 0°-52'-29 min. Earth dist. -2878 Jul 04 j 21:44 17°**尽** 53'08 4.03136 AU conjunction -2872 Jul 13 j 09:15 26°**Ⅱ**24'21 0°45'31 -2872 Jul 13 j 09:12 26°**Ⅲ**24'19 direct -2878 Sep 02 j 02:34 12° ₹ 58'21 minimum elong 0°45'36 -2872 Jul 12 j 18:31 26°**Ⅲ**16'18 -2878 Dec 26 j 02:57 0°₹ max. Earth dist. 6.38447 AU -2877 Jan 04 j 11:49 -2872 Jul 26 j 13:22 29°**Ⅲ**16'48 evening set 2°る13'00 morning rise -2872 Jul 29 j 21:05 0ಂತಾ conjunction -2877 Jan 17 j 14:18 5°**ප**21'08 0°-54'-40 retrograde -2872 Nov 24 j 00:35 16°518'18 minimum elong -2877 Jan 17 j 14:14 5°**පි**21'06 0°54'46 opposition -2871 Jan 23 j 03:18 11°524'10 1°28'42 max. Earth dist. -2877 Jan 18 j 11:29 5°₹33'50 6.00301 AU min. Earth dist. -2871 Jan 23 j 20:01 11°5518'44 4.40645 AU morning rise -2877 Jan 30 j 19:57 8°**る**31'01 direct -2871 Mar 26 j 11:19 6°9520'58 retrograde -2877 Jun 12 j 01:39 28°る54'54 evening set -2871 Jul 31 j 20:38 24°508'32 min. Earth dist. -2877 Aug 10 j 05:53 23°る59'36 3.99370 AU max. Earth dist. -2871 Aug 12 j 09:42 26°539'36 6.41172 AU opposition -2877 Aug 11 j 04:46 23°る51'56 -1°-44'-49 direct -2877 Oct 08 j 06:08 18°る57'51 conjunction -2871 Aug 13 i 18:52 26°\$57'44 1°12'40 -2876 Jan 04 i 07:43 0°≈ minimum elong -2871 Aug 13 i 18:49 26°557'43 1°12'45 evening set -2876 Feb 10 j 05:42 8°≈23'36 morning rise -2871 Aug 26 i 13:45 29°545'24 -2871 Aug 27 j 16:39 $0^{\circ}\Omega$ -2876 Feb 23 j 15:39 11°≈35'02 -1°-17'-37 -2871 Nov 21 j 12:34 15°**Ω** conjunction -2876 Feb 23 j 15:38 11°≈35'02 1°17'41 -2871 Dec 24 j 18:56 $16^{\circ}\Omega41'50$ minimum elong retrograde -2876 Feb 25 j 09:57 12°≈00'14 -2870 Jan 27 j 06:50 15°RΩ max. Earth dist. 6.00165 AU -2876 Mar 08 j 04:54 14°≈48'05 -2870 Feb 23 j 08:39 11°**Ω**49'52 1°54'40 morning rise opposition -2876 Mar 09 j 01:07 15°≈ -2870 Feb 24 j 12:32 $11^{\circ}\Omega$ 40'57 4.40302 AU min. Earth dist. -2876 May 20 j 11:08 -2870 Apr 27 j 01:49 0°**₩** direct 6°**Ω**48'15 5°**)**€04'50 -2870 Jul 15 j 20:31 15° Ω -2876 Jul 17 j 21:49 retrograde -2876 Sep 14 j 07:26 0° **H** 10'12 4.03010 AU evening set -2870 Aug 31 j 20:08 24° € 36'59 min. Earth dist. -2876 Sep 15 j 14:16 29°≈59'40 -1°-56'-39 max. Earth dist. -2870 Sep 11 j 15:16 $27^{\circ}\Omega00'09$ opposition 6.37659 AU -2876 Sep 15 j 13:18 30°R≈ -2876 Nov 12 j 14:43 25°≈02'46 -2870 Sep 13 j 11:34 $27^{\circ}\Omega$ 24'43 1°19'37 direct conjunction -2875 Jan 08 j 01:01 0°₩ -2870 Sep 13 j 11:34 27°Ω24'43 1°19'40 minimum elong evening set -2875 Mar 18 j 11:51 14° **∺** 19'18 -2870 Sep 25 j 04:03 0° Mp morning rise -2870 Sep 26 j 00:50 0° Mp 11′27 conjunction -2875 Apr 01 j 04:24 17° **∺** 30'26 -1°-10'-56 retrograde -2869 Jan 25 j 15:17 17° m 29'07 -2875 Apr 01 j 04:27 17° **∺** 30'28 1°10'58 opposition -2869 Mar 27 j 12:38 12° m 37'33 1°49'06 minimum elong max. Earth dist. -2875 Apr 03 j 05:31 17°**米**59'04 6.07171 AU min. Earth dist. -2869 Mar 28 j 21:26 12° m 27'07 4.33871 AU -2869 May 28 j 23:44 7° **m** 38'17 morning rise direct -2875 May 27 j 08:50 $0^{\circ}\Upsilon$ -2869 Oct 01 j 19:46 25° Mp 40'37 evening set -2875 Aug 21 j 23:25 10°**Y**12'18 max. Earth dist. -2869 Oct 12 j 15:08 28° Mp 07'10 6.28790 AU retrograde 5°**Υ**17'04 4.12584 AU min. Earth dist. -2875 Oct 19 i 06:19 5°**℃**07'45 -2869 Oct 14 j 08:59 28° m 30'53 1°03'56 opposition -2875 Oct 20 i 09:35 -1°-25'00 conjunction direct -2875 Dec 18 i 03:51 0°**Y**07'40 minimum elong -2869 Oct 14 i 09:01 28° m 30'55 1°03'55 -2869 Oct 20 i 22:07 evening set -2874 Apr 23 j 23:47 18° γ 59'09 0∘**⊽** morning rise -2869 Oct 26 i 21:10 1°**£**20'52 $-2874 \text{ May } 07 \text{ i } 18:27 \quad 22^{\circ} \Upsilon 06'19 \quad 0^{\circ} -38' -57$ -2868 Feb 28 j 02:32 19° **2**22'37 conjunction retrograde -2874 May 07 j 18:30 22°**Y**06'20 -2868 Apr 29 j 04:47 14° **2**29'40 1°10'59 minimum elong 0°38'56 opposition -2874 May 09 j 05:28 22°**Y**26'09 min. Earth dist. -2868 Apr 30 j 07:00 14° **2**21'18 4.23062 AU max. Earth dist. 6.18521 AU -2874 May 21 j 13:07 25°**Y**13'10 -2868 Jun 29 j 16:09 morning rise direct 9°**£**33'16 -2874 Jun 12 j 06:05 0°8 evening set -2868 Nov 01 j 16:27 27°**£**59'10 retrograde -2874 Sep 23 j 22:21 13°**8**40'29 -2868 Nov 10 j 08:54 0°M -2874 Nov 22 j 10:20 opposition 8°**8**38'52 0°-26'-8 max. Earth dist. -2868 Nov 13 j 03:54 0°Mപ39'00 6.17010 AU min. Earth dist. -2874 Nov 21 j 18:37 8°**8**44'11 4.24505 AU -2873 Jan 21 j 10:50 3°**8**36'21 -2868 Nov 14 j 07:37 0°M55'08 0°28'13 direct conjunction -2868 Nov 14 j 07:38 0° M $_{55}$ '09 0°28'11 -2873 Apr 26 j 00:39 15°**8** minimum elong 3°M51'44 asc. node -2873 Apr 30 j 11:58 15°**8**54'28 morning rise -2868 Nov 26 j 23:34 evening set -2873 May 28 j 21:37 21°**8**58'39 -2867 Jan 18 j 00:53 15° M retrograde -2867 Apr 03 j 16:23 22°M 52'12 conjunction -2873 Jun 11 j 12:52 24°859'26 0°04'45 opposition -2867 Jun 03 j 14:29 17°M 56'18 0°07'40 minimum elong -2873 Jun 11 j 12:52 24°**8**59'26 0°04'50 min. Earth dist. -2867 Jun 04 j 02:26 17°ML52'26 4.11086 AU behind sun begin -2873 Jun 11 j 04:48 24°854'59 -2867 Jun 28 j 00:39 15°RM

desc. node

-2867 Jul 17 j 00:15 13°M29'22

-2873 Jun 11 j 20:56 25°**8**03'53

behind sun end

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2867 in astronomical counting style is the year 2868 BCE in historical counting style. -2867 Aug 02 j 17:57 13°M 02'17 conjunction direct -2867 Sep 06 j 23:20 15°M minimum elong -2861 Jun 16 j 04:01 29°**8**30'55 0°10'53 -2867 Nov 26 j 21:30 -2861 Jun 15 j 21:50 29°**8**27'32 0°×7 behind sun begin -2861 Jun 16 j 10:12 29°**8**34'19 -2867 Dec 05 j 04:05 1°×756'29 evening set behind sun end -2861 Jun 16 j 11:18 29°**8**34'56 6.31805 AU max. Earth dist. 4°**₹**59'32 0°-18'-16 -2867 Dec 18 j 00:39 -2861 Jun 18 j 08:42 conjunction Π $^{\circ}0$ $2^{\circ}\Pi 29'20$ -2867 Dec 18 j 00:38 4°**∡**′59'31 -2861 Jun 29 j 16:00 minimum elong 0°18'22 morning rise -2861 Oct 29 j 14:00 19°**I**55'59 max. Earth dist. -2867 Dec 17 j 21:39 4°**∡**757'45 6.05980 AU retrograde morning rise -2867 Dec 30 j 23:29 8°**₹**03'59 opposition -2861 Dec 28 j 09:08 14°**I**58'50 0°45'53 retrograde -2866 May 10 j 18:28 28°**✗**'00'34 min. Earth dist. -2861 Dec 28 j 12:14 14°**Д**57'49 4.36136 AU opposition -2866 Jul 10 j 08:09 23°**∡**100′50 -1°-1′-36 direct -2860 Feb 27 j 21:05 9°**Ⅲ**55'12 -2860 Jul 04 j 12:23 27°**I**51'41 min. Earth dist. -2866 Jul 09 j 23:45 23°**尽**03'36 4.02052 AU evening set -2860 Jul 14 j 08:10 direct -2866 Sep 07 j 02:52 18°**₮**07'47 0ಂಣ -2866 Dec 08 j 07:52 0°궁 evening set -2865 Jan 09 j 14:39 7°る25'40 conjunction -2860 Jul 17 j 18:20 0°9544'54 0°50'14 -2860 Jul 17 j 18:17 minimum elong 0°9544'53 0°50'20 conjunction -2865 Jan 22 j 18:05 10°る34'29 0°-59'-29 max. Earth dist. -2860 Jul 17 j 00:45 0°935'17 6.39220 AU 3°536'29 minimum elong -2865 Jan 22 j 18:02 10°**3**34'27 0°59'35 morning rise -2860 Jul 30 j 21:01 max. Earth dist. -2865 Jan 23 j 18:42 10°₹49'15 5.99736 AU retrograde -2860 Nov 28 j 05:25 20°535'41 morning rise -2865 Feb 05 j 00:53 13°る45'06 opposition -2859 Jan 27 j 09:23 15°541'58 1°33'55 -2865 Apr 25 j 12:01 0°**≈** min. Earth dist. -2859 Jan 28 j 04:26 15°535'48 4.40893 AU retrograde -2865 Jun 17 i 08:35 4°≈11'07 direct -2859 Mar 30 i 19:31 10°538'54 -2865 Aug 09 j 22:05 30°Rる evening set -2859 Aug 05 i 03:31 28°9526'17 min. Earth dist. -2865 Aug 15 j 09:05 29°정16'06 3.99431 AU -2859 Aug 12 i 07:22 $0^{\circ}\Omega$ -2865 Aug 16 j 10:04 29°**궁**07'41 -1°-49'-16 max. Earth dist. -2859 Aug 16 j 11:23 0°**Ω**54'45 6.40843 AU opposition -2865 Oct 13 j 10:36 24°る13'19 direct -2865 Dec 13 j 10:15 0°≈ -2859 Aug 18 j 00:33 1°Ω15'07 1°14'54 conjunction minimum elong -2859 Aug 18 j 00:31 1°**Ω**15′06 -2864 Feb 15 j 12:12 13°≈38'53 1°14'58 evening set -2864 Feb 21 j 05:13 15°≈ -2859 Aug 30 j 18:38 4°**Ω**02'32 morning rise -2859 Oct 24 j 21:16 15° Ω -2864 Feb 28 j 23:18 16°≈50'29 -1°-18'-30 -2859 Dec 29 j 03:34 21° Ω 01'12 conjunction retrograde -2858 Feb 27 j 17:32 16°**Ω**09'23 1°55'51 -2864 Feb 28 j 23:18 16°≈50'28 1°18'35 minimum elong opposition -2864 Mar 01 j 21:41 17°≈18'01 6.00860 AU min. Earth dist. -2858 Feb 28 j 23:21 15° **Q** 59'50 4.39438 AU max. Earth dist. -2864 Mar 13 j 13:17 20°≈03'31 -2858 Mar 08 j 20:20 15°R**Ω** morning rise -2864 Apr 27 j 05:37 0°**米** -2858 May 01 j 10:47 $11^{\circ}\Omega$ 07'58 direct -2864 Jul 22 j 23:54 10° **₭** 15'01 -2858 Jun 23 j 05:05 15°**Ω** retrograde 5°**∺**20'21 4.04277 AU -2858 Sep 05 j 02:47 $28^{\circ}\Omega$ 59'05 min. Earth dist. -2864 Sep 19 j 07:49 evening set -2864 Sep 20 j 14:49 5°**)** 69'46 -1°-54'-33 -2858 Sep 09 j 16:58 0° m opposition direct -2864 Nov 17 j 16:48 0°**升**12′26 max. Earth dist. -2858 Sep 15 j 21:52 1° My 22'406.36322 AU -2863 Mar 23 j 16:51 19°**∺**25'06 evening set conjunction -2858 Sep 17 j 17:51 1° 10/47'08 1°18'46 -2858 Sep 17 j 17:52 1°Mp47'09 conjunction minimum elong -2863 Apr 06 j 09:51 22°**)** 35'43 1°07'42 -2858 Sep 30 j 06:35 4° m 34'14 minimum elong morning rise -2863 Apr 08 j 09:25 23° **米** 03'18 -2857 Jan 30 j 04:13 21° M 58'03 max. Earth dist. 6.08875 AU retrograde -2863 Apr 20 j 04:32 25°**)** 46'55 -2857 Apr 01 j 02:47 17° M 06'25 1°45'40 morning rise opposition -2863 May 08 i 20:06 0°**Υ**° min. Earth dist. -2857 Apr 02 j 10:50 16° m 56'14 4.32154 AU -2863 Aug 26 j 15:26 15°Υ07'09 retrograde direct -2857 Jun 02 j 10:09 12° m 07'34 -2863 Oct 24 j 00:17 10°Υ11'57 4.14535 AU min. Earth dist. -2857 Oct 05 i 04:22 0∘**⊽** $-2863 \text{ Oct } 25 \text{ j } 03:01 \quad 10^{\circ} \Upsilon 02'50 \quad -1^{\circ} -17' -51$ opposition evening set -2857 Oct 06 i 05:35 0° **2** 14'13 direct -2863 Dec 23 j 01:24 5°**Y**′02'17 max. Earth dist. -2857 Oct 17 j 01:36 2°**-**41′50 6.26836 AU -2862 Apr 28 j 22:48 23°**Y**48'14 evening set -2857 Oct 18 j 18:46 3°**2**05'18 0°59'58 conjunction -2862 May 12 j 17:19 26°**Υ**'54'25 0°-33'-12 -2857 Oct 18 j 18:49 3°**£**05'19 0°59'57 conjunction minimum elong minimum elong -2862 May 12 j 17:22 26°**Y**54'27 0°33'11 morning rise -2857 Oct 31 j 07:25 5°**£**56'15 -2862 May 14 j 01:49 27°**Υ**12'45 6.20566 AU max. Earth dist. retrograde -2856 Mar 04 j 01:43 24° **2**07'02 -2862 May 26 j 11:20 0°**と**00'07 opposition -2856 May 04 j 02:22 19°**£**13'45 1°03'15 morning rise 0° 8 -2862 May 26 j 11:08 min. Earth dist. -2856 May 05 j 03:26 19°**♀**05'44 4.20991 AU -2862 Aug 12 j 23:46 15°**8** -2856 Jul 04 j 09:48 14° **2**17'44 direct -2862 Sep 28 j 09:26 18°**8**17'44 -2856 Oct 25 j 01:31 retrograde 0°M -2862 Nov 13 j 19:35 15°**₹**8 -2856 Nov 06 j 07:46 evening set 2°M48'45 opposition -2862 Nov 26 j 21:18 13°**8**16'38 0°-17'-5 min. Earth dist. -2862 Nov 26 j 08:22 13°**8**20'59 4.26435 AU conjunction -2856 Nov 18 j 23:42 5°M45'52 0°21'57 direct -2861 Jan 26 j 03:25 8°**8**13'52 minimum elong -2856 Nov 18 j 23:44 5°M45'53 0°21'55 asc. node -2861 Mar 10 j 21:47 11°**8**05'07 max. Earth dist. -2856 Nov 17 j 23:44 5°M31'51 6.15030 AU -2861 Apr 06 j 06:17 15°**8** morning rise -2856 Dec 01 j 16:30 8°M43'43 -2861 Jun 02 j 13:48 26°**8**31'15 -2856 Dec 29 j 11:39 15°M evening set

retrograde

-2855 Apr 08 j 20:47 27°ML53'36

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2855 in astronomical counting style is the year 2856 BCE in historical counting style. desc. node -2855 May 26 j 00:30 24°ML41'40 direct -2849 Jan 30 j 17:19 12°850'06 -2855 Jun 08 j 18:28 22°M 57'12 0°-2'-25 -2849 Mar 09 j 16:26 15°8 opposition -2855 Jun 09 j 02:45 22°M 54'32 -2849 Jun 02 j 08:27 min. Earth dist. 4.09377 AU 0°Π -2855 Aug 07 j 16:04 18°ML03'32 -2849 Jun 07 j 05:47 1°**I**I03'54 direct evening set -2855 Nov 09 j 08:03 0°×7 -2855 Dec 10 j 02:48 -2849 Jun 20 j 19:01 4°II02'38 0°16'50 evening set 7°**₹**02'01 conjunction -2849 Jun 20 j 18:59 4°**Ⅱ**02'37 0°16'55 minimum elong -2849 Jun 20 j 22:00 -2855 Dec 23 j 00:09 10° ₹ 06'00 0°-24'-54 conjunction max. Earth dist. 4°**Ⅲ**04'16 6.33149 AU -2849 Jul 04 j 05:50 -2855 Dec 23 j 00:07 minimum elong 10°**∡**'05'59 0°24'59 morning rise 7°**Ⅱ**00'00 max. Earth dist. -2855 Dec 23 j 01:09 10°**х** 06′36 6.04692 AU retrograde -2849 Nov 02 j 22:03 24°**Ⅲ**21'27 morning rise -2854 Jan 05 j 00:08 13° ₹ 11'30 opposition -2848 Jan 01 j 16:56 19°**Ⅲ**24'55 0°53'46 -2848 Jan 01 j 23:14 19°**Ⅲ**22'50 -2854 Mar 30 j 17:36 0°ರ min. Earth dist. 4.37099 AU retrograde -2854 May 16 j 02:44 3°**る**14'17 direct -2848 Mar 03 j 09:08 14°**Ⅲ**21'18 -2854 Jul 01 j 23:07 30°Ŗ**⋌**7 -2848 Jun 28 j 10:10 0ಂತಾ evening set opposition -2854 Jul 15 j 15:04 28° ₹ 13'55 -1°-10'-21 -2848 Jul 08 j 23:27 2°9516'02 min. Earth dist. -2854 Jul 15 j 03:32 28°**х** 17'44 4.01322 AU max. Earth dist. -2848 Jul 21 j 06:45 4°956'51 6.39712 AU direct -2854 Sep 12 j 07:00 23°**尽**20'48 -2854 Nov 17 j 10:47 0°ಕ conjunction -2848 Jul 22 j 04:10 5°9508'32 0°54'44 evening set -2853 Jan 14 j 19:02 12°る40'24 minimum elong -2848 Jul 22 j 04:07 5°9508'31 0°54'49 morning rise -2848 Aug 04 j 05:36 7°959'25 conjunction -2853 Jan 27 j 23:39 15°**⋜**49'45 -1°-3'-51 retrograde -2848 Dec 02 j 11:57 24°\$57'26 minimum elong -2853 Jan 27 j 23:36 15°**⋜**49'43 1°03'58 opposition -2847 Jan 31 j 17:17 20°504'04 1°38'44 max. Earth dist. -2853 Jan 29 i 05:43 16°**⋜**07'45 5.99613 AU min. Earth dist. -2847 Feb 01 i 14:01 19°557'21 4.40922 AU morning rise -2853 Feb 10 j 07:23 19°る00'50 direct -2847 Apr 04 i 04:27 15°501'09 -2853 Mar 31 i 17:22 -2847 Jul 27 j 09:46 $0^{\circ}\Omega$ 0°≈ -2853 Jun 22 j 15:48 9°≈26'31 -2847 Aug 09 j 11:57 2°Ω48'57 retrograde evening set -2853 Aug 21 j 15:03 4°≈22'42 -1°-52'-48 -2847 Aug 20 j 18:09 5°**Ω**16'44 6.40401 AU max Earth dist opposition -2853 Aug 20 j 12:49 min. Earth dist. 4°≈31'34 3.99941 AU -2853 Oct 01 j 00:05 30°R ₹ -2847 Aug 22 j 08:02 5°**Ω**37'33 1°16'46 conjunction 5°**Ω**37'32 -2853 Oct 18 j 14:43 29°る28'02 -2847 Aug 22 j 08:00 direct minimum elong 1°16'50 -2853 Nov 05 j 05:35 0°≈ -2847 Sep 04 j 01:01 8°**Ω**24'44 morning rise -2847 Oct 05 j 08:06 15°**Ω** -2852 Feb 04 j 03:39 15°≈ -2852 Feb 20 j 18:31 18°≈51'52 -2846 Jan 02 j 13:31 25° Ω 26'01 retrograde evening set -2846 Mar 04 j 04:30 20° Ω34'23 1°56'25 opposition -2852 Mar 05 j 06:22 22°≈03'21 -1°-18'-46 -2846 Mar 05 j 11:12 20°Ω24'36 4.38568 AU conjunction min. Earth dist. -2852 Mar 05 j 06:22 22°≈03'21 1°18'51 -2846 May 05 j 20:53 $15^{\circ}\Omega$ 33'21 minimum elong direct -2852 Mar 07 j 05:09 22°≈31'02 6.01901 AU max. Earth dist. -2846 Aug 24 j 15:42 0° m morning rise -2852 Mar 18 j 21:20 25°≈16'16 evening set -2846 Sep 09 j 11:06 3°m/26'39 -2852 Apr 08 j 10:00 0°**米** max. Earth dist. -2846 Sep 20 j 04:04 5° m 49'34 6.35084 AU retrograde -2852 Jul 27 j 22:17 15°**米**21'11 -2852 Sep 24 j 06:08 10° **€** 26'44 4.05735 AU conjunction -2846 Sep 22 j 01:34 6° m 14'58 1°17'27 min. Earth dist. -2852 Sep 25 j 13:48 10° **★** 15'55 -1°-51'-36 -2846 Sep 22 j 01:35 6° m 14'59 opposition minimum elong -2852 Nov 22 j 17:20 5°**米** 18'09 -2846 Oct 04 j 14:11 9°m/02'29 direct morning rise -2851 Mar 28 j 20:26 24° **€** 26'41 -2845 Feb 03 j 21:08 26° m 32'18 evening set retrograde -2845 Apr 05 j 19:18 21° Mp 40'32 1°41'32 opposition -2845 Apr 07 i 02:54 21° m 30'28 4.30633 AU conjunction -2851 Apr 11 i 13:56 27° ★ 36'42 -1°-3'-59 min. Earth dist. -2845 Jun 06 j 23:56 16° m 42'04 minimum elong -2851 Apr 11 j 13:59 27°\ 36'44 1°04'00 direct max. Earth dist. -2851 Apr 13 j 12:19 28° \(\) 03'30 6.10631 AU -2845 Sep 18 i 16:38 0∘**⊽** -2851 Apr 21 j 22:26 $0^{\circ}\Upsilon$ evening set -2845 Oct 10 i 16:19 4°**£**52'06 -2851 Apr 25 j 08:45 0°**Y**47'11 max. Earth dist. -2845 Oct 21 j 15:46 7°**2**22'10 6.25190 AU morning rise -2851 Aug 31 j 08:50 19°Υ58'00 retrograde -2851 Oct 29 j 19:06 14° Υ 54'07 -1°-10'-15 -2845 Oct 23 j 05:49 7°**£**43'56 0°55'36 opposition conjunction -2851 Oct 28 j 18:53 15°**Υ**02'21 4.16390 AU -2845 Oct 23 j 05:52 7°**£**43'58 0°55'35 min. Earth dist. minimum elong direct -2851 Dec 27 j 22:41 9°Y53'13 morning rise -2845 Nov 04 j 18:40 10°**£**35'43 -2850 May 03 j 20:56 28°**Y**34'27 evening set retrograde -2844 Mar 08 j 23:36 28° **2**54'24 -2850 May 10 j 05:38 0° 8 opposition -2844 May 09 j 00:46 24°**♀**00'46 0°55'02 min. Earth dist. -2844 May 09 j 23:21 23°**♀**53'33 4.19351 AU -2850 May 17 j 15:11 1°**8**39'45 0°-27'-18 -2844 Jul 09 j 03:17 19°**♀**05'13 conjunction direct -2850 May 17 j 15:13 1°**8**39'46 0°27'15 -2844 Oct 07 j 13:41 minimum elong 0°M -2850 May 18 j 20:29 1°**8**56'13 6.22385 AU -2844 Nov 10 j 23:36 max. Earth dist. evening set 7°**IL**39'44 4°**8**44'26 morning rise -2850 May 31 j 08:39 -2850 Jul 19 j 17:02 15°8 conjunction -2844 Nov 23 j 15:57 10°M37'43 0°15'35 retrograde -2850 Oct 02 j 18:16 22°853'35 minimum elong -2844 Nov 23 j 15:59 10°M37'43 0°15'31 opposition -2850 Dec 01 j 07:41 17°\(253'04\) 0°-7'-59 behind sun begin -2844 Nov 23 j 13:28 10°MJ36'15 min. Earth dist. -2850 Nov 30 j 20:23 17°**8**56'51 4.28073 AU behind sun end -2844 Nov 23 j 18:30 10°M 39'11 -2850 Dec 24 j 06:51 15°R8 -2844 Nov 22 j 18:43 10°M25'15 6.13550 AU max. Earth dist. -2849 Jan 19 j 00:45 13°**8**03'21 -2844 Dec 06 j 09:42 13°M36'35 asc. node morning rise

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 6 Attention, astronomical year style is used: The year -2844 in astronomical counting style is the year 2845 BCE in historical counting style.

Attention, astronomic	cal year style is used: Th	ne year -2844	in astronomical cou	nting style is the year 2	2845 BCE in historical of	counting style.	
	-2844 Dec 12 j 09:33	15° M ₊		min. Earth dist.	-2838 Dec 05 j 08:46	22° 8 27'07	4.29298 AU
	-2843 Feb 28 j 23:42	0° ∡ ¹		direct	-2837 Feb 04 j 07:16	17° 8 21'20	
desc. node	-2843 Apr 04 j 22:33	2° ∡ ¹46′08			-2837 May 16 j 18:33	$\Pi^{\circ}0$	
retrograde	-2843 Apr 14 j 00:05	2° ∡ ¹53'59		evening set	-2837 Jun 11 j 20:17	5° Ⅲ 32′48	
	-2843 May 28 j 14:08	30°RML					
opposition	-2843 Jun 13 j 21:26	27°M56'59	0°-12'-25	conjunction	-2837 Jun 25 j 08:39	8°Ⅲ30′47	0°22'40
min. Earth dist.	-2843 Jun 14 j 02:34	27°M55'19	4.08184 AU	minimum elong	-2837 Jun 25 j 08:37	8°耳30′45	0°22'45
direct	-2843 Aug 12 j 15:16	23°ML03'27		max. Earth dist.	-2837 Jun 25 j 08:53		6.34073 AU
	-2843 Oct 20 j 05:46	0° ∡ ¹		morning rise	-2837 Jul 08 j 18:15	11° Ⅱ 27'17	
evening set	-2843 Dec 14 j 23:59	12° ∡ ¹04'26		retrograde	-2837 Nov 07 j 03:22		
				opposition	-2836 Jan 06 j 00:12	23° Ⅱ 48'55	1°01'15
conjunction	-2843 Dec 27 j 22:21	15° ∡ ¹09'10	0°-31'-13	min. Earth dist.	-2836 Jan 06 j 07:48		4.37693 AU
minimum elong	-2843 Dec 27 j 22:19	15° ∡ ¹09'08	0°31'18	direct	-2836 Mar 07 j 18:16	18° Ⅱ 45′22	
max. Earth dist.	-2843 Dec 28 j 04:55	15° ∡ 13′04	6.03900 AU		-2836 Jun 11 j 13:32	0 \circ \odot	
morning rise	-2842 Jan 09 j 23:13	18° ∡ 15′25		evening set	-2836 Jul 13 j 10:17	6° 5 39'24	
	-2842 Mar 04 j 13:54	0° ප					
retrograde	-2842 May 21 j 09:04	8° る 22'13		conjunction	-2836 Jul 26 j 13:41	9° © 31'17	0°58'52
opposition	-2842 Jul 20 j 19:14	3° る 21'18	-1°-18'-19	minimum elong	-2836 Jul 26 j 13:38	9° © 31'16	0°58'56
min. Earth dist.	-2842 Jul 20 j 05:35	3° る 25'50	4.01036 AU	max. Earth dist.	-2836 Jul 25 j 13:33	9° 5 018'06	6.39935 AU
	-2842 Aug 17 j 18:29	30°R. ✓		morning rise	-2836 Aug 08 j 13:55	12° 5 21'34	
direct	-2842 Sep 17 j 08:25	28° ∡ ¹28'04		retrograde	-2836 Dec 06 j 20:14	29° © 19'12	
	-2842 Oct 17 j 16:42	0°ರ		opposition	-2835 Feb 05 j 01:54	24°9526'14	1°42'57
evening set	-	17° る 47'55		min. Earth dist.	-2835 Feb 06 j 00:46	24°9518'51	4.40782 AU
Ü	,			direct	-2835 Apr 08 j 15:01	19° 5 23'34	
conjunction	-2841 Feb 02 j 02:02	20° る 57'31	-1°-7'-36		-2835 Jul 10 j 09:02	$0^{\circ}\Omega$	
minimum elong	-2841 Feb 02 j 01:59			evening set	-2835 Aug 13 j 20:21	7° Ω 11'54	
max. Earth dist.	-2841 Feb 03 j 09:54			max. Earth dist.	-2835 Aug 24 j 23:37		6.39890 AU
morning rise	-2841 Feb 15 j 10:54		5.5501.110	man. Barar alst.	2000 1148 219 20.07	y 00 5025	0.07070110
	-2841 Mar 12 j 17:23	0° ≈		conjunction	-2835 Aug 26 j 15:27	10°Ω00'18	1°18'10
retrograde	-2841 Jun 27 j 16:09	14° ≈ 32'57		minimum elong	-2835 Aug 26 j 15:26		
min. Earth dist.	-2841 Aug 25 j 11:38	9° ≈ 38'17	4.00631 AU	morning rise	-2835 Sep 08 j 07:40		1 1015
opposition	-2841 Aug 26 j 15:52	9° ≈ 28'44	-1°-55'-18	morning rise	-2835 Sep 18 j 12:12		
direct	-2841 Oct 23 j 14:41	4° ≈ 33'38	1 33 10	retrograde	-2834 Jan 07 j 00:10		
direct	-2840 Jan 17 j 02:48	15° ≈		opposition	-2834 Mar 08 j 16:20		1°56'17
evening set	-2840 Feb 25 j 21:06			min. Earth dist.	-2834 Mar 09 j 22:54		
evening set	-2040 Feb 23 j 21.00	23 🗢 33 21		direct	-2834 May 10 j 07:22		4.37737 AU
conjunction	-2840 Mar 10 j 09:55	27°~06'42	10 18! 25	direct	-2834 Aug 07 j 08:26	0° m	
·	-2840 Mar 10 j 09:56			avanina aat		7° Mp 54'07	
minimum elong max. Earth dist.	-2840 Mar 10 j 09:38			evening set max. Earth dist.	-2834 Sep 13 j 19:21 -2834 Sep 24 j 13:51	•	(22000 ATT
max. Earm dist.	-2840 Mar 12 j 19:48	2/ ≈343/ 0° ∺	0.03001 AU	max. Earth dist.	-2654 Sep 24 J 15.51	10 11/10 10	0.33998 AU
	•				2024 0 26:00-20	1.00 m. 4.214.2	1015140
morning rise	-2840 Mar 24 j 01:27	0° ¥ 19'22		conjunction	-2834 Sep 26 j 09:28		1°15'40
retrograde	-2840 Aug 01 j 19:06	20°) 17'36	4.07112.411	minimum elong	-2834 Sep 26 j 09:30	10° Mp 42'43	1°15'41
min. Earth dist.	-2840 Sep 29 j 02:47	15°) 22'37	4.07112 AU	morning rise	-2834 Oct 08 j 21:41	13° Tp 30'32	
opposition	-2840 Sep 30 j 08:48	15°) 12'22	-1°-47'-56	. 1	-2833 Jan 12 j 18:59	0∘ ⊽	
direct	-2840 Nov 27 j 16:07	10°) 14'06		retrograde	-2833 Feb 08 j 12:31	1° Ω 05'41	
evening set	-2839 Apr 02 j 20:24	29°) (18'58		•,•	-2833 Mar 07 j 07:58	30°R Mp	1026145
	-2839 Apr 05 j 20:01	0° Ƴ		opposition	-2833 Apr 10 j 11:38	26° Mp 13'47	1°36'45
	2020 4 46:4424	2000201	00 501 55	min. Earth dist.	-2833 Apr 11 j 18:39	26° Mp 03'55	4.29336 AU
conjunction	-2839 Apr 16 j 14:21	2° Υ 28'31	0°-59'-57	direct	-2833 Jun 11 j 13:40	21° To 15'46	
minimum elong	-2839 Apr 16 j 14:24	2° Y ′28'33	0°59'58	_	-2833 Aug 31 j 14:51	0∘ ⊽	
max. Earth dist.	-2839 Apr 18 j 11:17	2° Y ′54'21	6.12168 AU	evening set	-2833 Oct 15 j 02:44	9° ≏ 28'17	
morning rise	-2839 Apr 30 j 09:21	5° Ƴ 38'23		max. Earth dist.	-2833 Oct 26 j 02:49	11° ≏ 59'16	6.23778 AU
retrograde	-2839 Sep 04 j 21:11	24° Y '40'46					
min. Earth dist.	-2839 Nov 02 j 08:50	19° Ƴ 45'10	4.17935 AU	conjunction	3	12° ≏ 20'45	0°50'53
opposition	-2839 Nov 03 j 08:05	19° Ƴ 37'16	-1°-2'-28	minimum elong	-2833 Oct 27 j 16:19		0°50'52
direct	-2838 Jan 01 j 14:22	14° Ƴ 36′02		morning rise	-2833 Nov 09 j 05:42	15° ≏ 13'21	
	-2838 Apr 24 j 00:20	0°B			-2832 Jan 23 j 23:10	0°M₊	
evening set	-2838 May 08 j 16:15	3° 8 13'44		retrograde	-2832 Mar 13 j 20:49	3°M39'13	
					-2832 May 04 j 01:51	30° ŖΩ	
conjunction	-2838 May 22 j 10:04	6° 8 18'15	0°-21'-22	opposition	-2832 May 13 j 22:15	28° ≏ 45'10	0°46'28
minimum elong	-2838 May 22 j 10:06	6° 8 18'16	0°21'20	min. Earth dist.	-2832 May 14 j 18:30	28° ≏ 38'41	4.17887 AU
max. Earth dist.	-2838 May 23 j 10:45	6° 8 32'05	6.23831 AU	direct	-2832 Jul 13 j 20:47	23° ≏ 49'56	
morning rise	-2838 Jun 05 j 03:01	9° 8 22'05			-2832 Sep 17 j 07:11	0°M	
	-2838 Jul 01 j 03:15	15° 8		evening set	-2832 Nov 15 j 14:06	12°M27'33	
retrograde	-2838 Oct 07 j 04:02	27° 8 24'24			-2832 Nov 26 j 10:19	15° ™	
asc. node	-2838 Nov 30 j 01:53	23° 8 09'26					
opposition	-2838 Dec 05 j 16:43	22° 8 24'27	0°00'55	conjunction	-2832 Nov 28 j 07:18	15° M $26'26$	0°09'09

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2832 in astronomical counting style is the year 2833 BCE in historical counting style. -2832 Nov 28 j 07:18 15°M26'27 0°09'05 max. Earth dist. -2826 May 28 j 06:41 11°816'22 6.25191 AU minimum elong -2832 Nov 28 j 00:27 15°M22'26 morning rise -2826 Jun 09 j 23:45 14°**8**06'25 behind sun begin -2832 Nov 28 j 14:10 15°M30'27 -2826 Jun 14 j 00:40 15°8 behind sun end -2832 Nov 27 j 14:34 15°ML16'37 6.12174 AU -2826 Sep 05 j 13:54 max. Earth dist. 0°П -2832 Dec 11 j 01:45 18°M26'15 -2826 Oct 09 j 14:07 2°**I**101'37 morning rise asc. node -2831 Feb 02 j 18:14 -2826 Oct 11 j 13:51 0°**∡** retrograde 2°**Ⅱ**02'00 desc. node -2831 Feb 13 j 07:46 1° 🗷 52'29 -2826 Nov 16 j 10:14 30°R**႘** retrograde -2831 Apr 19 j 03:30 7°**х** 50′58 opposition -2826 Dec 10 j 03:57 27°**8**02'37 0°10'04 0°-22'-17 opposition -2831 Jun 18 j 23:04 2°**×**753'31 min. Earth dist. -2826 Dec 09 j 21:02 27°**8**04'56 4.30558 AU min. Earth dist. -2831 Jun 19 j 02:15 2°**₹**52'29 4.07006 AU direct -2825 Feb 08 j 21:31 21°**8**59'26 -2831 Jul 12 j 18:16 30°R∭L -2825 Apr 27 j 16:03 Π °0 -2825 Jun 16 j 13:10 10°**Ⅲ**08'17 direct -2831 Aug 17 j 12:58 28°M00'10 evening set -2831 Sep 21 j 19:12 0°**∡**¹ evening set -2831 Dec 19 j 20:36 17° ₹ 04'04 conjunction -2825 Jun 30 j 00:17 13°**耳**05'19 0°28'30 minimum elong -2825 Jun 30 j 00:15 13°**II**05'18 0°28'36 conjunction -2830 Jan 01 j 19:42 20° ₹09'33 0°-37'-16 max. Earth dist. -2825 Jun 29 j 20:24 13°**Ⅲ**03'12 6.35159 AU minimum elong -2830 Jan 01 j 19:39 20°**х** 09'31 0°37'22 morning rise -2825 Jul 13 j 08:46 16°**耳**00'54 max. Earth dist. -2830 Jan 02 j 04:21 20° **尽** 14'43 6.03011 AU -2825 Sep 26 j 05:16 3°514'14 morning rise -2830 Jan 14 j 21:47 23° ₹16'41 retrograde -2825 Nov 11 j 12:34 -2830 Feb 13 j 03:14 0°궁 -2825 Dec 28 j 05:49 30°R II retrograde -2830 May 26 j 12:15 13°る28'04 opposition -2824 Jan 10 j 09:58 28° **II** 18'40 1°08'32 opposition -2830 Jul 25 i 21:55 8°る26'37 -1°-25'-41 min. Earth dist. -2824 Jan 10 j 20:07 28°**Д**15'21 4.38567 AU min. Earth dist. -2830 Jul 25 i 05:13 8°る32'10 4.00546 AU direct -2824 Mar 12 i 08:25 23°**Ⅱ**15'12 direct -2830 Sep 22 i 07:12 3°**ට**33'14 -2824 May 22 j 19:10 0ಂತಾ evening set -2829 Jan 24 j 22:18 22°る54'41 -2824 Jul 17 j 22:11 11°507'05 evening set max. Earth dist. -2824 Jul 29 j 23:09 13°5544'25 6 40538 AU -2829 Feb 07 j 04:50 26°る04'47 -1°-10'-50 conjunction -2829 Feb 07 j 04:48 26°る04'46 1°10'55 -2824 Jul 31 j 00:26 13°\$58'14 1°02'45 minimum elong conjunction -2829 Feb 08 j 16:09 26°る25'54 5.99760 AU -2824 Jul 31 j 00:23 13°558'12 1°02'49 max. Earth dist. minimum elong -2829 Feb 20 j 14:35 29°**궁**16'36 -2824 Aug 12 j 23:14 16°5047'43 morning rise morning rise -2829 Feb 23 j 15:57 0°≈ -2824 Oct 21 j 22:52 0 $^{\circ}\Omega$ -2829 May 07 j 20:09 15°≈ -2824 Dec 11 j 02:47 retrograde 3°**Ω**43'39 -2823 Jan 31 j 10:45 30°Rூ -2829 Jul 02 j 19:25 19°≈40'02 retrograde -2829 Aug 28 j 16:23 15°R≈ -2823 Feb 09 j 11:27 28°950'54 1°46'36 opposition -2829 Aug 31 j 16:35 14°≈35'32 -1°-57'00 -2823 Feb 10 j 10:25 28°543'30 4.41114 AU opposition min. Earth dist. -2829 Aug 30 j 12:28 14°≈45'04 4.01019 AU -2823 Apr 13 j 01:28 23°5548'28 min. Earth dist. direct -2829 Oct 28 j 16:05 9°≈40'03 direct -2823 Jun 20 j 10:35 0°**Ω** -2829 Dec 26 j 03:52 15°≈ evening set -2823 Aug 18 j 04:46 11°**Ω**35'27 -2828 Mar 02 j 00:43 29°≈01'02 max. Earth dist. -2823 Aug 29 j 06:27 14°**Ω**01'10 6.39922 AU evening set -2828 Mar 06 j 05:18 0°**∀** conjunction -2823 Aug 30 j 22:47 14°**Ω**23'23 1°19'09 -2828 Mar 15 j 14:29 2°**升**12'28 -1°-17'-29 -2823 Aug 30 j 22:46 14°Ω23'23 1°19'12 conjunction minimum elong -2828 Mar 15 j 14:31 2°\dagger12'29 1°17'32 -2823 Sep 02 j 17:17 15°**Ω** minimum elong -2828 Mar 17 j 15:12 2°**)**41'07 6.03780 AU -2823 Sep 12 j 14:05 17° **Ω**10'03 max. Earth dist. morning rise -2828 Mar 29 j 06:52 5°**₭**25'06 -2823 Nov 18 j 07:20 morning rise retrograde -2828 Aug 06 i 16:03 25°\(\frac{1}{2}\)17'44 retrograde -2822 Jan 11 i 09:56 4° m 15'08 -2828 Oct 03 j 22:33 20°\(\frac{1}{2}\)22'56 4.08199 AU min. Earth dist. -2822 Mar 08 j 08:49 30°RΩ opposition -2828 Oct 05 i 04:48 20° ★ 12'36 -1°-43'-29 opposition $-2822 \text{ Mar } 13 \text{ j } 03:31 \quad 29^{\circ} \Omega 23'36 \quad 1^{\circ}55'26$ direct -2828 Dec 02 j 13:15 15° ¥ 13'54 min. Earth dist. -2822 Mar 14 j 11:15 $29^{\circ}\Omega$ 13'30 4.37457 AU -2827 Mar 19 j 22:05 $0^{\circ}\Upsilon$ direct -2822 May 14 j 19:30 $24^{\circ}\Omega 23'12$ -2827 Apr 07 j 22:26 4°Υ16'19 -2822 Jul 18 j 02:24 evening set 0° m -2822 Sep 18 j 01:50 12° mp 17'48 evening set -2827 Apr 21 j 16:40 7°Υ25'27 0°-55'-26 max. Earth dist. -2822 Sep 28 j 19:07 14° mp 41'33 conjunction 6.33415 AU 7°**Υ**25'29 minimum elong -2827 Apr 21 j 16:44 0°55'25 7°**Ƴ**49'23 -2822 Sep 30 j 15:30 15° m 06'25 1°13'29 max. Earth dist. -2827 Apr 23 j 10:25 6.13467 AU conjunction -2827 May 05 j 11:53 10°**Y**34'47 minimum elong -2822 Sep 30 j 15:32 15° m 06'26 1°13'30 morning rise -2822 Oct 13 j 03:35 17° **m** 54'26 retrograde -2827 Sep 09 j 12:52 29°**Y**29'37 morning rise -2827 Nov 07 j 23:09 24°**Υ**26'30 0°-54'-7 -2822 Dec 12 j 10:29 opposition 0∘**⊽** -2827 Nov 07 j 02:19 24°**Υ**33'35 4.19302 AU -2821 Feb 13 j 00:40 min. Earth dist. retrograde 5°**£**33'23 -2826 Jan 06 j 09:58 19°**Υ**24'55 -2821 Apr 15 j 01:47 direct opposition 0°**£**41'12 1°31'27 -2826 Apr 06 j 00:58 0° 8 min. Earth dist. -2821 Apr 16 j 07:31 0°**£**31'44 4.28468 AU evening set -2826 May 13 j 14:03 7°**8**59'40 -2821 Apr 20 j 11:41 30°R, Mg direct -2821 Jun 16 j 01:06 25° m 43'30 conjunction -2826 May 27 j 07:38 11°**႘**03'29 0°-15'-9 -2821 Aug 09 j 17:29 0∘**⊽** minimum elong -2826 May 27 j 07:39 11°**8**03'30 0°15'07 evening set -2821 Oct 19 j 10:02 13°**£**57'04 -2826 May 27 j 05:15 11°802'10 behind sun begin -2826 May 27 j 10:03 11°804'50 -2821 Oct 31 j 23:50 16° **2**50'04 0°46'00 behind sun end conjunction

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2821 in astronomical counting style is the year 2822 BCE in historical counting style. -2821 Oct 31 j 23:53 16° **2**50'06 0°45'58 minimum elong $-2815 \text{ Apr } 26 \text{ i } 18:50 \quad 12^{\circ} \Upsilon 20'29 \quad 0^{\circ} 50'29$ minimum elong -2821 Oct 30 j 13:11 16°**2**30'08 -2815 Apr 28 j 12:42 12°**Υ**'44'25 max. Earth dist. 6.22707 AU max Earth dist 6.14636 AU 19°**≏**43'16 -2821 Nov 13 j 13:31 -2815 May 10 j 13:53 15°**Υ**29'16 morning rise morning rise -2821 Dec 31 j 19:00 -2815 Jul 22 j 21:32 0°8 0°M -2815 Sep 14 j 03:44 retrograde -2820 Mar 18 j 15:08 8°M15'15 retrograde 4°**8**16'44 0°37'51 opposition -2820 May 18 j 16:11 3°M20'50 -2815 Nov 06 j 21:48 30°R**Y** -2815 Nov 12 j 13:50 29°**Υ**14'04 min. Earth dist. -2820 May 19 j 11:51 3°M14'32 4.16663 AU opposition 0°-45'-25 -2815 Nov 11 j 17:47 29°**Y**20'51 -2820 Jun 16 j 10:37 30°R<u>Ω</u> min. Earth dist. 4.20652 AU -2814 Jan 11 j 03:43 24° Υ 12'13 direct -2820 Jul 18 j 11:45 28°**£**25'52 direct -2820 Aug 19 j 04:36 0°M -2814 Mar 15 j 20:03 0°8 -2820 Nov 11 j 00:12 15°M evening set -2814 May 18 j 11:23 12°**8**43'46 -2814 May 28 j 16:24 15°8 evening set -2820 Nov 20 j 01:28 17°M 06'04 conjunction -2820 Dec 02 j 19:09 20°ML05'44 0°02'52 conjunction -2814 Jun 01 j 04:14 15°**8**46'44 minimum elong -2820 Dec 02 j 19:10 20°M 05'45 0°02'49 minimum elong -2814 Jun 01 j 04:15 15°**8**46'45 0°08'49 behind sun begin -2820 Dec 02 j 11:09 20°ML01'03 behind sun begin -2814 May 31 j 21:08 15°**8**42'48 behind sun end -2820 Dec 03 j 03:11 20°ML10'27 behind sun end -2814 Jun 01 j 11:21 15°**8**50'41 max. Earth dist. -2820 Dec 02 j 03:19 19°M 56'25 6.10904 AU max. Earth dist. -2814 Jun 01 j 23:16 15°**8**57'20 6.26604 AU morning rise -2820 Dec 15 j 14:39 23°ML06'32 morning rise -2814 Jun 14 j 19:42 18°**8**48'45 desc. node -2820 Dec 26 j 10:35 25°M37'26 -2814 Aug 08 j 22:11 $0^{\circ}\Pi$ -2819 Jan 15 j 00:51 0°**∡**¹ asc. node -2814 Aug 18 j 23:42 1°**Ⅲ**39'36 retrograde -2819 Apr 24 i 01:06 12° ₹38'15 retrograde -2814 Oct 15 i 23:48 6°**Ⅱ**37'26 opposition -2819 Jun 23 i 20:19 7°**∡**′40'16 0°-31'-39 opposition -2814 Dec 14 i 14:54 1°**II**38'30 0°19'06 min. Earth dist. -2819 Jun 23 i 20:45 7°**∡**140′07 4.05803 AU min. Earth dist. -2814 Dec 14 i 10:21 1°**I**I40′01 4.31896 AU -2819 Aug 22 j 05:06 2°**∡**¹46'58 -2814 Dec 27 j 04:13 30°R8 direct evening set -2819 Dec 24 j 13:51 21° ₹ 54'24 -2813 Feb 13 j 13:30 26°835'09 direct -2813 Apr 03 j 05:36 0°Π -2818 Jan 06 j 14:04 25° **₹** 00'46 0°-42'-52 -2813 Jun 21 j 04:43 14°**II**40'49 conjunction evening set -2818 Jan 06 j 14:01 25°**尽** 00'44 0°42'58 minimum elong -2818 Jan 07 j 02:36 25° ₹ 08'16 -2813 Jul 04 j 14:48 17°**Д**36'55 0°34'09 max. Earth dist. 6.01989 AU conjunction -2818 Jan 19 j 17:04 28°**尽** 08'48 -2813 Jul 04 j 14:45 17°**Ⅲ**36'54 0°34'14 minimum elong morning rise -2818 Jan 27 j 13:28 0°る -2813 Jul 04 j 09:22 17°**Д**33'57 max. Earth dist. 6.36297 AU -2818 May 31 j 14:35 18°**♂**25'25 -2813 Jul 17 j 21:46 20° **Ⅲ**31'27 retrograde morning rise -2818 Jul 30 j 21:19 13°₹23'31 -1°-32'-13 -2813 Sep 02 j 10:18 0°€ opposition -2818 Jul 30 j 03:59 13°중29'19 3.99823 AU -2813 Nov 15 j 18:37 min. Earth dist. retrograde 7°9540'21 -2818 Sep 27 j 04:34 8°**중**29'58 -2812 Jan 14 j 18:31 direct opposition 2°9545'14 1°15'23 -2812 Jan 15 j 05:50 evening set -2817 Jan 29 j 21:33 27°₹54'14 min. Earth dist. 2°9541'32 4.39409 AU -2817 Feb 07 j 16:27 -2812 Feb 06 j 02:58 30°RД direct -2812 Mar 16 j 19:34 27°**Ⅱ**41'51 conjunction -2817 Feb 12 j 05:10 1°≈05'00 -1°-13'-26 -2812 Apr 25 j 21:22 0ಂತಾ -2817 Feb 12 j 05:08 1°≈04'58 1°13'32 evening set -2812 Jul 22 j 08:52 15°531'47 minimum elong -2817 Feb 13 j 18:38 max. Earth dist. -2812 Aug 03 j 04:34 18°506'18 max. Earth dist. 1°≈27'23 5.99394 AU 6.40976 AU -2817 Feb 25 j 16:08 morning rise 4°≈17'28 -2817 Apr 14 j 19:33 15°≈ -2812 Aug 04 j 09:39 18°522'11 1°06'15 conjunction -2817 Jul 07 j 19:49 24°≈41'23 -2812 Aug 04 j 09:37 18°522'09 retrograde minimum elong min. Earth dist. -2817 Sep 04 i 09:18 19°≈46'47 4.01087 AU morning rise -2812 Aug 17 j 07:21 21°5511'01 -2812 Sep 29 i 10:14 opposition -2817 Sep 05 i 14:56 19°≈36'43 -1°-57'-45 $0^{\circ}\Omega$ -2817 Oct 19 i 23:46 15°R≈ retrograde -2812 Dec 15 i 11:12 8°\O6'08 direct -2817 Nov 02 j 12:58 14°≈40'52 opposition -2811 Feb 13 i 20:35 3°Ω13'40 1°49'43 -2817 Nov 16 i 03:53 15°≈ min. Earth dist. -2811 Feb 14 j 22:08 3°Ω05'27 4.41115 AU -2816 Feb 18 j 14:34 0°**₩** -2811 Mar 13 j 05:12 30°R 55 -2816 Mar 07 j 03:23 4°\(\)02'35 -2811 Apr 17 j 13:13 28°511'25 evening set direct -2811 May 23 j 00:01 $0^{\circ}\Omega$ conjunction -2816 Mar 20 j 18:02 7°**)** 14'13 -1°-15'-57 -2811 Aug 18 j 01:15 15°Ω minimum elong -2816 Mar 20 j 18:04 7°¥14'14 1°15'59 evening set -2811 Aug 22 j 12:14 15° Ω 58'16 7°**)** € 42'25 max. Earth dist. -2816 Mar 22 j 18:01 6.04273 AU max. Earth dist. -2811 Sep 02 j 12:05 18°Ω23'12 6.39458 AU -2816 Apr 03 j 11:15 10°**米**26'58 morning rise -2816 Jul 30 j 05:38 $0^{\circ}\Upsilon$ -2811 Sep 04 j 05:30 $18^{\circ}\Omega 46'02$ $1^{\circ}19'43$ conjunction 0°Y15'03 -2811 Sep 04 j 05:30 $18^{\circ}\Omega 46'02$ retrograde -2816 Aug 11 j 12:09 minimum elong 1°19'45 -2811 Sep 16 j 19:59 $21^{\circ}\Omega 32'35$ -2816 Aug 23 j 16:54 30°R₩ morning rise -2811 Oct 27 j 14:01 opposition -2816 Oct 09 j 23:49 25° **★** 10'00 -1°-38'-18 0° M min. Earth dist. -2816 Oct 08 j 18:24 25° ★ 20'04 4.09049 AU retrograde -2810 Jan 15 j 19:16 8° Mp 40'40 direct -2816 Dec 07 j 11:04 20°**₩**10'51 opposition -2810 Mar 17 j 15:25 3° Mp 49'08 1°54'03 -2815 Mar 01 j 12:39 0° Υ min. Earth dist. -2810 Mar 18 j 22:48 3° Tp 39'09 4.36559 AU evening set -2815 Apr 13 j 00:01 9°**Y**11'37 -2810 Apr 20 j 22:37 30°R€ -2810 May 19 j 05:19 28° **Ω** 49'05 direct -2815 Apr 26 j 18:47 12°**Y**20'27 0°-50'-30 -2810 Jun 16 j 13:48 conjunction

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2810 in astronomical counting style is the year 2811 BCE in historical counting style. -2810 Sep 22 i 09:32 16° m 45'34 -2804 Jun 17 j 22:34 evening set -2810 Oct 03 j 03:19 19° Mp 10'03 6.32153 AU -2804 Aug 16 j 08:21 5°**Y**14'22 max. Earth dist. retrograde -2804 Oct 14 j 19:27 0°**Υ**09'29 opposition -1°-32'-25 -2810 Oct 04 j 22:55 19° m 34'34 -2804 Oct 13 j 14:34 0°**Υ**19'21 4.10839 AU 1°10'52 min. Earth dist. conjunction -2810 Oct 04 j 22:57 19° m 34'35 1°10'53 -2804 Oct 15 j 23:15 minimum elong 30°**₹** -2804 Dec 12 j 09:38 -2810 Oct 17 j 10:54 22° m 23'04 25°**₩**09'55 morning rise direct $0^{\circ}\Upsilon$ -2810 Nov 22 j 00:30 0∘ಹ -2803 Feb 06 j 22:27 14°**Y**05′23 retrograde -2809 Feb 17 j 17:57 10°**₽**08'22 evening set -2803 Apr 18 j 01:07 5°**≏**16′01 opposition -2809 Apr 19 j 18:47 1°25'32 min. Earth dist. -2809 Apr 21 j 00:51 5°**£**06′27 4.26896 AU conjunction -2803 May 01 j 19:43 17°**Υ**13'18 0°-45'-18 direct -2809 Jun 20 j 16:09 0°**£**18'42 minimum elong -2803 May 01 j 19:46 17°**Y**13'20 0°45'18 -2803 May 03 j 10:08 17°**Y**35'10 evening set -2809 Oct 23 j 21:01 18°**♀**35'52 max. Earth dist. 6.16643 AU -2803 May 15 j 14:44 20°**Y**21'08 max. Earth dist. -2809 Nov 04 j 01:12 21°**△**10'08 6.20966 AU morning rise -2803 Jun 30 j 00:06 0°8 conjunction -2809 Nov 05 j 11:09 21° \$\oldsymbol{\Omega}\$29'44 0°40'40 retrograde -2803 Sep 18 j 14:28 8°**8**58'25 minimum elong -2809 Nov 05 j 11:12 21°**2**29'45 0°40'38 min. Earth dist. -2803 Nov 16 j 08:08 4°**8**02'17 4.22672 AU morning rise -2809 Nov 18 j 01:33 24° **2**23'57 opposition -2803 Nov 17 j 02:20 3°**8**56'07 0°-36'-38 -2809 Dec 13 j 02:24 0°M -2803 Dec 20 j 18:55 30°RY retrograde -2808 Mar 23 j 13:49 13°M 04'33 direct -2802 Jan 15 j 21:32 28°Y53'54 0°8 opposition -2808 May 23 j 15:04 8°M09'42 0°28'36 -2802 Feb 11 j 08:40 min. Earth dist. -2808 May 24 j 07:43 8°Mo4'21 4.14879 AU -2802 May 12 j 13:24 15°8 direct -2808 Jul 23 i 04:52 3°M15'02 -2802 May 23 j 05:26 17°**8**20'07 evening set -2808 Oct 24 i 20:03 15°M desc. node -2808 Nov 05 i 04:47 17°M29'33 conjunction -2802 Jun 05 j 21:37 20°**8**21'58 0°-2'-42 evening set -2808 Nov 24 j 18:25 21° ML 59'47 -2802 Jun 05 j 21:39 20°**8**21'59 0°02'39 minimum elong -2802 Jun 05 j 13:21 20°817'24 behind sun begin -2808 Dec 07 j 13:00 25° ML00'32 0°-3'-53 -2802 Jun 06 j 05:56 20°**8**26'34 conjunction behind sun end -2808 Dec 07 j 12:59 25°ML00'32 0°03'58 max. Earth dist. -2802 Jun 06 j 13:54 20°**8**31'00 6.28489 AU minimum elong -2808 Dec 07 j 05:02 24°ML55'51 -2802 Jun 19 j 11:56 23°**8**22'44 behind sun begin morning rise -2808 Dec 07 j 20:57 25° ML05'13 asc. node -2802 Jun 29 j 16:46 25°**8**36'32 behind sun end max. Earth dist. -2808 Dec 07 j 01:33 24°M 53'47 -2802 Jul 20 j 14:26 0°**П** 6.09249 AU -2808 Dec 20 j 09:22 28°Ml02'28 -2802 Oct 20 j 06:02 11°**Д**03'26 morning rise retrograde -2808 Dec 28 j 18:49 -2802 Dec 18 j 22:16 6°**Ⅲ**05'04 0°27'40 0°**∡**7 opposition -2807 Apr 29 j 08:01 17° **₹** 42'35 -2802 Dec 18 j 20:08 6°**Д**05'46 4.33486 AU retrograde min. Earth dist. -2807 Jun 29 j 00:20 12°**х** 44'05 0°-41'-22 -2801 Feb 18 j 01:25 1°**Ⅱ**01'36 opposition direct -2807 Jun 28 j 22:59 12° ₹ 44'31 4.04432 AU -2801 Jun 25 j 16:14 19°**Ⅲ**03'32 min. Earth dist. evening set direct -2807 Aug 27 j 05:24 7°**⋌**¹50'54 evening set -2807 Dec 29 j 14:07 27°**尽**02'14 conjunction -2801 Jul 09 j 00:57 21°**Д**58'38 0°39'24 -2806 Jan 10 j 23:28 0°₹ minimum elong -2801 Jul 09 j 00:54 21°**Д**58'37 0°39'28 max. Earth dist. -2801 Jul 08 j 14:02 21°**Д**52'40 6.37443 AU conjunction -2806 Jan 11 j 15:18 0°る09'29 0°-48'-28 morning rise -2801 Jul 22 j 06:46 24°**Ц**52'11 -2806 Jan 11 j 15:14 0°る09'27 0°48'33 -2801 Aug 15 j 11:13 0°5 minimum elong -2806 Jan 12 j 07:28 0°る19'10 6.01037 AU -2801 Nov 19 j 23:12 11°557'15 max. Earth dist. retrograde -2806 Jan 24 j 19:33 3°**ප**18'26 -2800 Jan 19 j 00:05 morning rise opposition 7°902'33 1°21'34 -2806 Jun 05 j 21:12 23°₹39'12 min. Earth dist. -2800 Jan 19 j 14:32 6°557'50 retrograde 4.40058 AU -2806 Aug 04 i 06:00 18°る43'44 3.99454 AU min. Earth dist. direct -2800 Mar 21 i 04:45 1°959'09 opposition -2806 Aug 05 i 02:31 18°₹36'52 -1°-38'-23 evening set -2800 Jul 26 i 15:46 19°5547'56 direct -2806 Oct 02 j 06:13 13°る43'10 max. Earth dist. -2800 Aug 07 j 08:45 22°520'59 6.41058 AU 0°**≈** -2805 Jan 21 i 18:09 -2805 Feb 04 j 03:08 3°≈08'38 -2800 Aug 08 j 15:33 22°537'49 1°09'18 evening set conjunction -2800 Aug 08 j 15:30 22°537'48 minimum elong 1°09'23 -2805 Feb 17 j 11:44 6°≈19'43 -1°-15'-38 -2800 Aug 21 j 11:55 25°526'07 conjunction morning rise -2800 Sep 11 j 22:46 -2805 Feb 17 j 11:43 6°≈19'42 1°15'43 minimum elong $0^{\circ}\Omega$ -2805 Feb 19 j 03:35 max. Earth dist. 6°≈43'30 5.99641 AU retrograde -2800 Dec 19 j 15:44 $12^{\circ}\Omega 21'55$ morning rise -2805 Mar 02 j 23:42 9°≈32'30 opposition -2799 Feb 18 j 03:24 7°**Ω**29'42 1°52'11 -2799 Feb 19 j 06:02 -2805 Mar 26 j 13:41 15°≈ min. Earth dist. 7°**Ω**21'10 4.40648 AU retrograde -2805 Jul 12 j 22:55 29°≈53'35 direct -2799 Apr 21 j 19:48 2°**Ω**27'43 -2805 Sep 09 j 10:32 24°≈59'00 4.01946 AU -2799 Aug 02 j 01:17 15°**Ω** min. Earth dist. -2805 Sep 10 j 17:00 24°≈48'38 -1°-57'-38 -2799 Aug 26 j 18:03 20° **Ω**16'04 opposition evening set -2805 Nov 07 j 16:26 19°≈52'19 -2799 Sep 06 j 14:40 22° **Ω**39'41 6.38457 AU direct max. Earth dist. -2804 Jan 30 j 23:39 0°**∀** evening set -2804 Mar 12 j 08:59 9°**∺**11'22 conjunction -2799 Sep 08 j 10:26 23°Ω03'53 1°19'49 minimum elong -2799 Sep 08 j 10:26 23° Ω 03'53 1°19'52 conjunction -2804 Mar 26 j 00:33 12° **★** 22'44 -1°-13'-52 morning rise -2799 Sep 21 j 00:28 25° **Ω** 50'37 minimum elong -2804 Mar 26 j 00:36 12°**¥**22'46 1°13'54 -2799 Oct 10 j 06:12 0° m -2804 Mar 28 j 02:41 12° **€** 52'04 6.05678 AU -2798 Jan 20 j 07:23 13° Mp 03'39 max. Earth dist. retrograde -2804 Apr 08 j 18:10 15°**)** 35'01 -2798 Mar 22 j 03:00 8° m 12'09 1°52'03 morning rise opposition

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 10 Attention, astronomical year style is used: The year -2798 in astronomical counting style is the year 2799 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	ne year -2798	in astronomical cou	nting style is the year	2799 BCE in historical of	counting style.	
min. Earth dist.	-2798 Mar 23 j 11:57	-		evening set	-2792 Mar 17 j 14:03		
direct	-2798 May 23 j 16:11	3° mg 12'25					
evening set	-2798 Sep 26 j 17:04	21° Mp 12'43		conjunction	-2792 Mar 31 j 06:06	17°) €29'04	-1°-11'-14
max. Earth dist.	-2798 Oct 07 j 11:18	23° m 38'04	6.30321 AU	minimum elong	-2792 Mar 31 j 06:09	17° ¥ 29′06	1°11'16
				max. Earth dist.	-2792 Apr 02 j 06:32		6.07276 AU
conjunction	-2798 Oct 09 j 06:29	24° Mp 02'27	1°07'50	morning rise	-2792 Apr 14 j 00:20		
minimum elong	-2798 Oct 09 j 06:32	24° m 02'29	1°07'51	C	-2792 May 26 j 13:27	$0^{\circ}\Upsilon$	
morning rise	-2798 Oct 21 j 18:36	26° m 51'46		retrograde	-2792 Aug 21 j 01:26	10° Y 11′05	
C	-2798 Nov 04 j 21:41	0∘ ত		min. Earth dist.	-2792 Oct 18 j 09:26		4.12654 AU
retrograde	-2797 Feb 22 j 11:31	14° ≏ 45'30		opposition	-2792 Oct 19 j 13:38	5° Y ′06′27	-1°-25'-55
opposition	-2797 Apr 24 j 13:09	9° Ω 52'56	1°19'04	direct	-2792 Dec 17 j 07:28	0° Y ′06′27	
min. Earth dist.	-2797 Apr 25 j 17:01	9° ≏ 44'03	4.24836 AU	evening set	-2791 Apr 23 j 01:06		
direct	-2797 Jun 25 j 05:02	4° Ω 56'03		8	1 3		
evening set	-2797 Oct 28 j 09:40	23° ≏ 18'27		conjunction	-2791 May 06 j 19:47	22° Υ '04'10	0°-39'-50
max. Earth dist.	-2797 Nov 08 j 17:31		6.18865 AU	minimum elong	-2791 May 06 j 19:51		0°39'50
	,			max. Earth dist.	-2791 May 08 j 07:53		6.18552 AU
conjunction	-2797 Nov 10 j 00:17	26° ≏ 13'24	0°35'01	morning rise	-2791 May 20 j 14:20		
minimum elong	-2797 Nov 10 j 00:19			C	-2791 Jun 11 j 11:23	0° ႘	
morning rise	-2797 Nov 22 j 15:22	29° ≏ 08'50		retrograde	-2791 Sep 23 j 03:11		
<i>5 5</i>	-2797 Nov 26 j 08:24	0°M		opposition	-2791 Nov 21 j 14:27	8° 8 37'18	0°-27'-41
	-2796 Feb 12 j 20:47			min. Earth dist.	-2791 Nov 20 j 22:57	8° 8 42'32	4.24483 AU
retrograde	-2796 Mar 28 j 17:58			direct	-2790 Jan 20 j 14:50	3° 8 34'52	
	-2796 May 13 j 06:34				-2790 Apr 25 j 06:08		
opposition	-2796 May 28 j 16:47		0°18'59	asc. node	-2790 May 09 j 20:47		
min. Earth dist.		12°M59'25		evening set	-2790 May 27 j 23:06		
direct	-2796 Jul 28 j 02:10	8°M09'53	20,0110	evening sec	2770 111ay 27 y 25.00	2. 000.2	
desc. node	-2796 Sep 14 j 07:59			conjunction	-2790 Jun 10 j 14:27	24° X 57'34	0°03'36
dese. Hode	-2796 Oct 04 j 16:24			minimum elong	-2790 Jun 10 j 14:27		0°03'40
evening set	-2796 Nov 29 j 14:16			behind sun begin	-2790 Jun 10 j 06:14		0 03 10
evening sec	27701107 27 1 1.10	20 11000 17		behind sun end	-2790 Jun 10 j 22:39		
conjunction	-2796 Dec 12 j 09:44	0° ₹ 01'40	0°-10'-35	max. Earth dist.	-2790 Jun 11 j 02:12		6.30066 AU
minimum elong	-2796 Dec 12 j 09:43	0° ✓ 01'39		morning rise	-2790 Jun 24 j 03:50		0.50000710
behind sun begin	-2796 Dec 12 j 03:26	29°M57'57	0 10 11	morning rise	-2790 Jul 03 j 12:48	0°II	
behind sun end	-2796 Dec 12 j 16:00	0° ₹ 05'21		retrograde	-2790 Oct 24 j 12:38		
max. Earth dist.	-2796 Dec 12 j 02:19		6.07572 AU	opposition	-2790 Dec 23 j 06:26		0°36'08
max. Lartii dist.	-2796 Dec 12 j 06:55	0° √	0.07372 AO	min. Earth dist.	-2790 Dec 23 j 06:37		4.34731 AU
morning rise	-2796 Dec 25 j 07:14	3° ⋌ ¹04'49		direct	-2789 Feb 22 j 13:21		4.54751710
retrograde	-2795 May 04 j 14:43			evening set	-2789 Jun 30 j 04:24		
opposition	-2795 Jul 04 j 06:29		0°-50'-57	evening set	270) Jun 30 J 04.24	23 112720	
min. Earth dist.	-2795 Jul 04 j 01:07			conjunction	-2789 Jul 13 j 11:59	26°∏23'44	0°44'29
direct	-2795 Sep 01 j 06:07	17 × 35 40 13° × 00'52	4.03237 110	minimum elong	-2789 Jul 13 j 11:56		0°44'33
anoot	-2795 Dec 25 j 04:05	0°る		max. Earth dist.	-2789 Jul 12 j 22:26		6.38273 AU
evening set	-2794 Jan 03 j 16:54	00 2° る 15'17		morning rise	-2789 Jul 26 j 16:22		0.30273710
evening set	2774 Juli 05 j 10.54	2 013 17		morning rise	-2789 Jul 30 j 00:53	0°95	
conjunction	-2794 Jan 16 j 19:02	5° ಕ 23'12	0°-53'-46	retrograde	-2789 Nov 24 j 05:11		
minimum elong	-2794 Jan 16 j 18:58	5° ට 23'10	0°53'52	opposition	-2788 Jan 23 j 07:16		1°27'26
max. Earth dist.	-2794 Jan 17 j 15:25	5° る 35'26	6.00443 AU	min. Earth dist.	-2788 Jan 23 j 23:52		4.40437 AU
morning rise	-2794 Jan 30 j 00:23	8° る 32'54	0.001.0110	direct	-2788 Mar 25 j 14:21	6°\$21'17	
retrograde	-2794 Jun 11 j 04:55	28° ප 56'01		evening set	-2788 Jul 31 j 00:29		
min. Earth dist.	-2794 Aug 09 j 10:02	24° ろ 00'46	3.99511 AU			, , , ,	
opposition	-2794 Aug 10 j 08:44	23° る 53'08	-1°-43'-48	conjunction	-2788 Aug 12 j 22:59	26°9559'00	1°12'02
direct	-2794 Oct 07 j 11:40	18° る 59'08	1 13 10	minimum elong	-2788 Aug 12 j 22:57		1°12'05
anoot	-2793 Jan 03 j 10:15	0°≈		max. Earth dist.	-2788 Aug 11 j 12:18		6.40937 AU
evening set	-2793 Feb 09 j 09:11	8° ≈ 24'07		morning rise	-2788 Aug 25 j 18:27		0.10957110
evening sec	2775100 07 1 07.11	0 /4210/		morning rise	-2788 Aug 26 j 18:28	0°Ω	
conjunction	-2793 Feb 22 j 18:56	11°2235'21	-1°-17'-14		-2788 Nov 20 j 09:07		
minimum elong	-2793 Feb 22 j 18:55	11°≈35'21	1°17'18	retrograde	-2788 Dec 24 j 00:50		
max. Earth dist.	-2793 Feb 24 j 14:59	12°≈01'35	6.00310 AU	retrograde	-2787 Jan 26 j 20:42		
morning rise	-2793 Pco 24 j 14:39 -2793 Mar 08 j 07:42	12 ≈ 01 33 14° ≈ 48'10	5.00510710	opposition	-2787 Feb 22 j 12:53		1°54'06
	-2793 Mar 08 j 07:42 -2793 Mar 09 j 03:46	15°≈		min. Earth dist.	-2787 Feb 23 j 17:22		4.40059 AU
	-2793 Mar 09 j 03:40 -2793 May 20 j 14:21	15 ≈ 0°) €		direct	-2787 Feb 23 j 17.22 -2787 Apr 26 j 05:53	6°Ω50'17	r. 10037 AU
retrograde	-2793 May 20 J 14.21 -2793 Jul 18 j 01:47	5° ₩ 04'32		anoci	-2787 Apr 20 J 05:35 -2787 Jul 14 j 19:22		
min. Earth dist.	-2793 Jul 18 J 01.47 -2793 Sep 14 j 11:36	0° ₩ 09'56	4.03150 AU	evening set	-2787 Aug 31 j 01:28		
opposition	-2793 Sep 14 j 11:30 -2793 Sep 15 j 18:24	0 1 0930 29°≈59'27	-1°-56'-35	max. Earth dist.	-2787 Aug 31 j 01.28 -2787 Sep 10 j 22:02		6.37444 AU
оррознин	-2793 Sep 15 j 16:46	29 ≈3927 30°R≈	1 -30-33	max. Darui uist.	2707 Sep 10 J 22.02	21 0604 U/	0.51777 AU
direct	-2793 Sep 13 j 10:40 -2793 Nov 12 j 18:44	30 k∞ 25°≈02'44		conjunction	-2787 Sep 12 j 17:22	27° A 28'A8	1°19'30
ancei	-2792 Jan 08 j 05:22	25°≈02'44 0°)		minimum elong	-2787 Sep 12 j 17:22 -2787 Sep 12 j 17:22		1°19'30 1°19'33
	2172 July 00 J 03.22	υ Λ		minimum ciong	2101 Sep 12 J 11.22	21 062000	1 1/33

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 11 Attention, astronomical year style is used: The year -2787 in astronomical counting style is the year 2788 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	ne year -2787	in astronomical cou	nting style is the year	2788 BCE in historical of	ounting style.	
	-2787 Sep 24 j 03:28	0° m)		opposition	-2781 Sep 20 j 15:18	4°) 59′18	
morning rise	-2787 Sep 25 j 06:44	0° Mp 15'02		direct	-2781 Nov 17 j 16:44	0°) 02′07	
retrograde	-2786 Jan 24 j 19:42	17° m 33'02		evening set	-2780 Mar 22 j 15:07	19°) 14′08	
opposition	-2786 Mar 26 j 17:04	12° m 41'30	1°49'21				
min. Earth dist.	-2786 Mar 28 j 01:09	12° m 31'18	4.33724 AU	conjunction	-2780 Apr 05 j 07:54	22°) €24'40	-1°-8'-11
direct	-2786 May 28 j 03:02	7° m 42'12		minimum elong	-2780 Apr 05 j 07:58	22°) € 24'42	1°08'12
evening set	-2786 Oct 01 j 02:32	25° m 45'34		max. Earth dist.	-2780 Apr 07 j 07:35	22°) 52′21	6.08779 AU
max. Earth dist.	-2786 Oct 11 j 21:13	28° Mp 11'46	6.28736 AU	morning rise	-2780 Apr 19 j 02:20	25°) ₹35′51	
					-2780 May 08 j 13:43	$0^{\circ}\Upsilon$	
conjunction	-2786 Oct 13 j 15:45	28° m/35'53	1°04'22	retrograde	-2780 Aug 25 j 17:52	14° Ƴ 57'46	
minimum elong	-2786 Oct 13 j 15:48	28° m/35'55	1°04'21	min. Earth dist.	-2780 Oct 23 j 02:40	10° Y ′02′15	4.14248 AU
	-2786 Oct 19 j 20:03	0∘ ত		opposition	-2780 Oct 24 j 04:27	9° Ƴ 53'28	-1°-19'-5
morning rise	-2786 Oct 26 j 04:07	1° ≏ 25'57		direct	-2780 Dec 22 j 02:49	4° Y ′53′05	
retrograde	-2785 Feb 27 j 08:52	19° ≏ 27'15		evening set	-2779 Apr 27 j 21:48	23° Y '39'49	
opposition	-2785 Apr 29 j 09:22	14° ≙ 34'23	1°11'58				
min. Earth dist.	-2785 Apr 30 j 12:16	14° ≏ 25'48	4.23128 AU	conjunction	-2779 May 11 j 16:22	26° Ƴ 46′13	0°-34'-17
direct	-2785 Jun 29 j 22:07	9° ≏ 37'54		minimum elong	-2779 May 11 j 16:25		0°34'16
evening set	-2785 Nov 01 j 23:22	28° ≏ 04'03		max. Earth dist.	-2779 May 13 j 01:15		6.20112 AU
S	-2785 Nov 10 j 07:32	0°M₊		morning rise	-2779 May 25 j 10:35		
max. Earth dist.	-2785 Nov 13 j 11:12	0°M44'00	6.17220 AU	Ü	-2779 May 26 j 00:30	0°B	
	,				-2779 Aug 12 j 18:54		
conjunction	-2785 Nov 14 j 14:35	0° M 59′56	0°29'05	retrograde	-2779 Sep 27 j 11:30		
minimum elong	-2785 Nov 14 j 14:37	0° M 59'57		8	-2779 Nov 12 j 06:00		
morning rise	-2785 Nov 27 j 06:22	3°M56'23		opposition	-2779 Nov 26 j 00:00		0°-18'-50
	-2784 Jan 17 j 22:35	15° M ₀		min. Earth dist.	-2779 Nov 25 j 10:03		4.25885 AU
retrograde	-2784 Apr 02 j 19:19	22°M55'04		direct	-2778 Jan 25 j 03:41	8° 8 08'43	
opposition	-2784 Jun 02 j 18:25	17°ML59'18	0°09'13	asc. node	-2778 Mar 20 j 21:14	_	
min. Earth dist.	-2784 Jun 03 j 05:40		4.11460 AU	use. noue	-2778 Apr 05 j 17:38		
min. Burui dige.	-2784 Jun 27 j 16:41	15°RM		evening set	-2778 Jun 01 j 14:52		
desc. node	-2784 Jul 25 j 03:09	13°M11'15		evening sec	2770 van 01 j 1 1.02	20 027 10	
direct	-2784 Aug 01 j 22:10	13°ML05'19		conjunction	-2778 Jun 15 j 05:24	29° X 27'52	0°09'36
unect	-2784 Sep 05 j 17:56	15°M		minimum elong	-2778 Jun 15 j 05:22		0°09'40
	-2784 Nov 25 j 23:47	0° ⊼ ¹		behind sun begin	-2778 Jun 14 j 22:38		0 07 10
evening set	-2784 Dec 04 j 09:47	1° × 758'19		behind sun end	-2778 Jun 15 j 12:07		
evening set	2704 Dec 04 J 07.47	1 7 30 17		max. Earth dist.	-2778 Jun 15 j 13:05		6.31220 AU
conjunction	-2784 Dec 17 j 05:58	5° ∡ ¹01'00	0°-17'-10	max. Earth dist.	-2778 Jun 17 j 15:31	0°Ⅱ	0.31220710
minimum elong	-2784 Dec 17 j 05:56	5° √ 00'59		morning rise	-2778 Jun 28 j 17:43	2° ∏ 26'40	
max. Earth dist.	-2784 Dec 17 j 02:23		6.06479 AU	retrograde	-2778 Oct 28 j 20:28		
morning rise	-2784 Dec 30 j 04:30	8° √ 05'04	0.00477710	opposition	-2778 Dec 27 j 13:38		0°44'15
retrograde	-2783 May 09 j 20:03	27° × ⁷ 58'54		min. Earth dist.	-2778 Dec 27 j 16:52		4.35568 AU
opposition	-2783 Jul 09 j 10:49	22° × 759'12	0°-59'-56	direct	-2777 Feb 27 j 00:40	9° ∏ 55'14	
min. Earth dist.	-2783 Jul 09 j 02:38	23° × ⁷ 01'54	4.02612 AU	evening set	-2777 Jul 04 j 15:50		
direct	-2783 Sep 06 j 07:46	18° ∡ 06'07	1.02012110	evening sec	-2777 Jul 14 j 08:14	0°95	
uncet	-2783 Dec 07 j 16:56	0° ਰ			2777 Jul 14 J 00.14	0 3	
evening set	-2782 Jan 08 j 17:27	ッる21'44		conjunction	-2777 Jul 17 j 22:14	0°547'01	0°49'14
evening sec	27023 u ii 00 j 17.27	, 02111		minimum elong	-2777 Jul 17 j 22:11	0°9346'59	0°49'20
conjunction	-2782 Jan 21 j 20:38	10°云30'09	0°-58'-31	max. Earth dist.	-2777 Jul 17 j 05:07	0°537'39	6.38719 AU
minimum elong	-2782 Jan 21 j 20:35	10° る 30'07	0°58'38	morning rise	-2777 Jul 31 j 01:26	3°939'00	0.50,15110
max. Earth dist.	-2782 Jan 22 j 22:01	10° ප් 45'21	6.00298 AU	retrograde	-2777 Nov 28 j 11:32		
morning rise	-2782 Feb 04 j 02:54	13° る 40'17	***************************************	opposition	-2776 Jan 27 j 14:51	15°9546'13	1°32'46
morning rise	-2782 Apr 25 j 07:08	0°≈		min. Earth dist.	-2776 Jan 28 j 08:55	15°5540'21	4.40510 AU
retrograde	-2782 Jun 16 j 09:32	4° ≈ 03'41		direct	-2776 Mar 29 j 23:10	10°5643'07	1.10310110
retrograde	-2782 Aug 08 j 00:40	30°Ŗටි		evening set	-2776 Aug 04 j 09:08	28°931'46	
min. Earth dist.	-2782 Aug 14 j 11:05	29° ろ 08'28	3.99909 AU	evening sec	-2776 Aug 11 j 03:00	0°Ω	
opposition	-2782 Aug 15 j 11:10	29° ろ 00'22	-1°-48'-11	max. Earth dist.	-2776 Aug 15 j 19:32	1° Ω 01'38	6.40628 AU
direct	-2782 Oct 12 j 12:45	24°る06'06	1 40 11	max. Earth dist.	2770 Aug 13 j 17.32	1 000130	0.40020710
unect	-2782 Dec 13 j 05:58	0° ≈		conjunction	-2776 Aug 17 j 06:38	1° Ω 20'53	1°14'19
evening set	-2782 Bec 13 j 03:38 -2781 Feb 14 j 12:12	0 ~ 13° ≈ 29'38		minimum elong	-2776 Aug 17 j 06:36	1° Ω 20'51	1°14'23
Tronning sor	-2781 Feb 20 j 20:49	15° ≈		morning rise	-2776 Aug 17 j 00:56	4°Ω08'30	1 1 1 4 3
	2,01100 20 j 20.49	15.01			-2776 Oct 23 j 12:50	15° Ω	
conjunction	-2781 Feb 27 j 22:41	16° ≈ 40'51	-1°-18'-10	retrograde	-2776 Dec 28 j 09:49	21° Ω 07'34	
minimum elong	-2781 Feb 27 j 22:40	16°≈40'51	1°18'14	opposition	-2775 Feb 26 j 23:08	$16^{\circ}\Omega 15'47$	1°55'21
max. Earth dist.	-2781 Mar 01 j 18:54	16 ≈40 31 17°≈07'06	6.01170 AU	min. Earth dist.	-2775 Feb 28 j 04:18		4.39409 AU
morning rise	-2781 Mar 13 j 12:27	17 ≈0700 19°≈53'37	0.011/0 AU	mm. Darm dist.	-2775 Mar 08 j 22:39		1.37TU7 AU
morning 1150	-2781 Mai 13 j 12.27 -2781 Apr 28 j 00:47	19 ≈ 3337		direct	-2775 Apr 30 j 15:45		
retrograde	-2781 Jul 22 j 22:16	0 X 10° ¥ 04'31			-2775 Jun 21 j 15:42		
min. Earth dist.	-2781 Sep 19 j 07:56	5°) (10'00	4.04386 AU	evening set	-2775 Sep 04 j 09:32		
Darm dist.	2,01.50p 17 j 07.50	2 /(1000		5. J	2.7.0 Sep Orj 07.32	-> 0000 70	

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 12 Attention, astronomical year style is used: The year -2775 in astronomical counting style is the year 2776 BCE in historical counting style.

Attention, astronom	ical year style is used: The	he year -2775	in astronomical co	unting style is the year	2776 BCE in historical	counting style	
	-2775 Sep 08 j 11:42	0° m		morning rise	-2769 Mar 18 j 17:08	24° ≈ 59'41	
max. Earth dist.	-2775 Sep 15 j 03:54	1°Mp28′56	6.36487 AU		-2769 Apr 09 j 11:02	0° ∀	
				retrograde	-2769 Jul 27 j 21:50		
conjunction	-2775 Sep 17 j 00:41	1° m 53'50		min. Earth dist.	-2769 Sep 24 j 06:18		4.05312 AU
minimum elong	-2775 Sep 17 j 00:42	1° m 53'50	1°18'44	opposition	-2769 Sep 25 j 12:31		-1°-51'-59
morning rise	-2775 Sep 29 j 13:46	4° m/40'58		direct	-2769 Nov 22 j 16:46	5°) €03'16	
retrograde	-2774 Jan 29 j 10:31	22° m 03'41		evening set	-2768 Mar 27 j 17:26	24° ∺ 13′05	
opposition	-2774 Mar 31 j 07:43	17° m 12'03	1°45'58				
min. Earth dist.	-2774 Apr 01 j 15:39	17° m 01'53	4.32512 AU	conjunction	-2768 Apr 10 j 10:49		-1°-4'-36
direct	-2774 Jun 01 j 15:46	12°m/13'05		minimum elong	-2768 Apr 10 j 10:53		1°04'37
	-2774 Oct 04 j 02:20	0° ⊽		max. Earth dist.	-2768 Apr 12 j 09:31		6.09972 AU
evening set	-2774 Oct 05 j 11:47	0° £ 18'50			-2768 Apr 21 j 18:12	0° Υ	
max. Earth dist.	-2774 Oct 16 j 09:18	2° ≏ 47'03	6.27371 AU	morning rise	-2768 Apr 24 j 05:41	0° Υ 34'10	
				retrograde	-2768 Aug 30 j 09:27	19° Y 48'35	
conjunction	-2774 Oct 18 j 01:11	3° Ω 09'45	1°00'28	opposition	-2768 Oct 28 j 20:15		-1°-11'-38
minimum elong	-2774 Oct 18 j 01:14	3° Ω 09'46	1°00'28	min. Earth dist.	-2768 Oct 27 j 18:59		4.15577 AU
morning rise	-2774 Oct 30 j 13:38	6° £ 00'27		direct	-2768 Dec 26 j 21:05	9° Y 43'48	
retrograde	-2773 Mar 04 j 03:46	24° £ 08'29	100.410.4	evening set	-2767 May 02 j 20:39		
opposition	-2773 May 04 j 05:09	19° £ 15'18	1°04'24		-2767 May 09 j 17:16	9° 8	
min. Earth dist.	-2773 May 05 j 06:00	19° £ 07'22	4.21680 AU		25.57.4	101 100001	00 201 22
direct	-2773 Jul 04 j 13:10	14° £ 19'14		conjunction	-2767 May 16 j 15:00	1° 8 33'21	
	-2773 Oct 25 j 06:21	0°M		minimum elong	-2767 May 16 j 15:03	1° 8 33'22	0°28'21
evening set	-2773 Nov 06 j 12:23	2°M48'16		max. Earth dist.	-2767 May 17 j 20:02	1° 8 49'42	6.21489 AU
max. Earth dist.	-2773 Nov 18 j 02:36	5° M 30′09	6.15800 AU	morning rise	-2767 May 30 j 08:50	4° 8 38'34	
		w			-2767 Jul 19 j 03:02		
conjunction	-2773 Nov 19 j 03:57	5°M44'57	0°23'00	retrograde	-2767 Oct 02 j 00:20		
minimum elong	-2773 Nov 19 j 03:59	5°M44'58	0°22'57	opposition	-2767 Nov 30 j 11:56		0°-9'-40
morning rise	-2773 Dec 01 j 20:35	8°M42'22		min. Earth dist.	-2767 Nov 30 j 00:56		4.27178 AU
	-2773 Dec 29 j 19:25	15° M ₊			-2767 Dec 23 j 03:20		
retrograde	-2772 Apr 07 j 20:05	27°M48'32		asc. node	-2766 Jan 28 j 10:12		
desc. node	-2772 Jun 04 j 12:05	23°M17'39		direct	-2766 Jan 29 j 20:35		
opposition	-2772 Jun 07 j 18:43	22°M52'13	0°00'-34		-2766 Mar 09 j 00:28		
min. Earth dist.	-2772 Jun 08 j 03:36	22°M49'20	4.10155 AU		-2766 Jun 01 j 10:21	$\Pi^{\circ}0$	
direct	-2772 Aug 06 j 18:50	17°M58'24		evening set	-2766 Jun 06 j 08:43	1° Ⅱ 04'37	
	-2772 Nov 08 j 22:14	0° ∡ ¹					
evening set	-2772 Dec 09 j 04:11	6° ≯ 54'25		conjunction	-2766 Jun 19 j 22:26	4° Ⅱ 03'51	0°15'43
				minimum elong	-2766 Jun 19 j 22:24	4° Ⅱ 03'51	0°15'47
conjunction	-2772 Dec 22 j 01:21	9° ∡ 757'57		behind sun begin	-2766 Jun 19 j 22:08	4° Ⅱ 03'42	
minimum elong	-2772 Dec 22 j 01:19			behind sun end	-2766 Jun 19 j 22:41		
max. Earth dist.	-2772 Dec 22 j 02:26		6.05416 AU	max. Earth dist.	-2766 Jun 20 j 03:53		6.32353 AU
morning rise	-2771 Jan 04 j 00:47	13° ∡ 02'55		morning rise	-2766 Jul 03 j 09:36	7° Ⅱ 01'43	
	-2771 Mar 31 j 02:45	0° ට		retrograde	-2766 Nov 02 j 03:55		
retrograde	-2771 May 15 j 00:48	3° ප 02'15		opposition	-2766 Dec 31 j 23:16	19° Ⅱ 29'26	0°52'17
	-2771 Jun 29 j 05:52	30°₹ ҂ 7		min. Earth dist.	-2765 Jan 01 j 03:25		4.36499 AU
opposition	-2771 Jul 14 j 13:14	28° ∡ 02'03	-1°-8'-27	direct	-2765 Mar 03 j 12:40	14° Ⅱ 25'55	
min. Earth dist.	-2771 Jul 14 j 03:05	28° ₹ 05'24	4.01914 AU		-2765 Jun 28 j 04:27	0 \circ \odot	
direct	-2771 Sep 11 j 06:49			evening set	-2765 Jul 09 j 05:11	2° 5 22'10	
	-2771 Nov 17 j 14:03	0°₹					
evening set	-2770 Jan 13 j 17:28	12° る 26'28		conjunction	-2765 Jul 22 j 10:13	5° © 14'57	0°53'50
				minimum elong	-2765 Jul 22 j 10:10	5° © 14'55	0°53'55
conjunction	-2770 Jan 26 j 21:30	15° る 35'25	-1°-2'-50	max. Earth dist.	-2765 Jul 21 j 14:41	5° 5 04'16	6.39401 AU
minimum elong	-2770 Jan 26 j 21:27	15° る 35'23	1°02'55	morning rise	-2765 Aug 04 j 12:05	8° 5 06'07	
max. Earth dist.	-2770 Jan 28 j 00:27	15° る 51'33	5.99997 AU	retrograde	-2765 Dec 02 j 20:05	25° © 04'53	
morning rise	-2770 Feb 09 j 04:59	18° ප් 46'10		opposition	-2764 Feb 01 j 00:16	20°9511'27	1°37'40
	-2770 Mar 31 j 21:30	0° ≈		min. Earth dist.	-2764 Feb 01 j 20:17	20°904'59	4.40930 AU
retrograde	-2770 Jun 21 j 10:47	9° ≈ 10′27		direct	-2764 Apr 03 j 11:30	15° © 08'35	
min. Earth dist.	-2770 Aug 19 j 10:11	4° ≈ 15'33	4.00058 AU		-2764 Jul 26 j 02:56	$0^{\circ}\Omega$	
opposition	-2770 Aug 20 j 12:19	4° ≈ 06'43	-1°-51'-47	evening set	-2764 Aug 08 j 18:35	2° Ω 55'56	
	-2770 Sep 25 j 21:53	30°₹₹		max. Earth dist.	-2764 Aug 20 j 01:56	5° Ω 24'14	6.40749 AU
direct	-2770 Oct 17 j 12:08	29° ප 12'04					
	-2770 Nov 08 j 04:08	0° ≈		conjunction	-2764 Aug 21 j 14:57	5° Ω 44'32	1°16'15
	-2769 Feb 04 j 05:07	15° ≈		minimum elong	-2764 Aug 21 j 14:55	5° Ω 44'31	1°16'18
evening set	-2769 Feb 19 j 15:00	18° ≈ 35'27		morning rise	-2764 Sep 03 j 08:17	8° Ω 31'42	
					-2764 Oct 04 j 02:13	15° Ω	
conjunction	-2769 Mar 05 j 02:38	21° ≈ 46′52	-1°-18'-32	retrograde	-2763 Jan 01 j 18:43		
minimum elong	-2769 Mar 05 j 02:39	21° ≈ 46′52	1°18'36	opposition	-2763 Mar 03 j 09:54	20° Ω 39'30	1°55'56
max. Earth dist.	-2769 Mar 07 j 00:53	22° ≈ 14'16	6.01748 AU	min. Earth dist.	-2763 Mar 04 j 15:06		4.39242 AU
	•				•		

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2763 in astronomical counting style is the year 2764 BCE in historical counting style. direct -2763 May 05 j 02:18 $15^{\circ}\Omega$ 38'23 minimum elong -2757 Mar 10 j 04:55 26°≈47'34 1°18'21 -2763 Aug 23 j 15:22 max. Earth dist. -2757 Mar 12 j 04:03 27°≈15'27 0°m 6 02013 AU -2763 Sep 08 j 16:34 3°m29'19 -2757 Mar 23 j 20:24 0°\ 00'41 evening set morning rise -2763 Sep 19 j 11:54 -2757 Mar 23 j 19:14 0°) max. Earth dist. 5° m 53'12 6.36046 AU -2757 Aug 01 j 18:36 20°₩03'54 retrograde 6°M(17′19 -2757 Sep 29 j 00:52 15°**米**09'18 4.05956 AU conjunction -2763 Sep 21 j 07:12 1°17'28 min. Earth dist. -2763 Sep 21 j 07:13 -2757 Sep 30 j 07:51 minimum elong 6° Mp 17'20 1°17'29 opposition 14°**)** 58'43 -1°-48'-29 -2763 Oct 03 j 19:41 -2757 Nov 27 j 12:25 10°**₩**00'39 morning rise 9° Mp 04'25 direct -2756 Apr 01 j 18:57 29°**₩**09'32 retrograde -2762 Feb 02 j 22:16 26° m 30'13 evening set opposition -2762 Apr 04 j 21:15 21° Mp 38'29 1°41'58 -2756 Apr 05 j 10:47 $0^{\circ}\Upsilon$ min. Earth dist. -2762 Apr 06 j 04:55 21° m/28'26 4.31802 AU -2762 Jun 06 j 03:38 -2756 Apr 15 j 12:51 2°**Υ**19'38 direct 16°M 39'57 conjunction -1°00'-35 -2756 Apr 15 j 12:55 -2762 Sep 18 j 04:32 0∘**ত** minimum elong 2°**Υ**19'40 1°00'36 evening set -2762 Oct 09 j 19:01 4°**£**46'18 max. Earth dist. -2756 Apr 17 j 09:29 2°**Y**45′24 6.10947 AU max. Earth dist. -2762 Oct 20 j 16:15 7°**♀**14'45 6.26446 AU morning rise -2756 Apr 29 j 08:05 5°Y30'09 retrograde -2756 Sep 04 j 01:58 24°**Y**38'01 conjunction -2762 Oct 22 j 08:15 7°**♀**37'33 0°56'18 opposition -2756 Nov 02 j 11:41 19°**Υ**34'20 -1°-3'-45 minimum elong -2762 Oct 22 j 08:17 7°**♀**37'35 0°56'18 min. Earth dist. -2756 Nov 01 j 12:18 19°**Υ**42'18 4.16764 AU morning rise -2762 Nov 03 j 21:04 10°**£**28'46 direct -2756 Dec 31 j 16:45 14° Υ 33'12 retrograde -2761 Mar 08 j 20:13 28° **2**42'14 -2755 Apr 23 j 02:33 0°8 opposition -2761 May 08 j 22:08 23°**2**48'41 0°56'35 evening set -2755 May 07 j 18:42 3°814'22 min. Earth dist. -2761 May 09 j 21:30 23°**£**41'13 4.20573 AU direct -2761 Jul 09 i 03:05 18° **2**52'54 conjunction -2755 May 21 i 12:56 6°**8**19'28 0°-22'-19 -2761 Oct 08 i 16:33 0°M minimum elong -2755 May 21 j 12:58 6°**8**19'29 0°22'17 evening set -2761 Nov 10 j 22:21 7°M23'57 max. Earth dist. -2755 May 22 j 17:04 6°**႘**35'16 6.22811 AU -2755 Jun 04 j 06:03 9°**8**23'51 morning rise -2761 Nov 23 j 14:36 10°M21'23 0°16'57 -2755 Jun 30 j 01:33 15°8 conjunction -2761 Nov 23 j 14:37 10°M21'24 0°16'53 -2755 Oct 06 j 10:15 27°\(\mathbf{2}29'58\) minimum elong retrograde -2761 Nov 22 j 16:41 10°ML08'35 6.14625 AU -2755 Dec 04 j 23:15 22°**8**29'48 0°00'-29 max. Earth dist. opposition -2761 Dec 06 j 07:48 13°M 19'36 min. Earth dist. -2755 Dec 04 j 12:59 22°\(\mathbf{2}33'14\) 4.28511 AU morning rise -2761 Dec 13 j 13:31 15°M -2755 Dec 08 j 00:45 22°805'11 asc. node -2760 Mar 02 j 14:43 -2754 Feb 03 j 10:57 17°**8**26'47 direct 0°**√** -2760 Apr 12 j 17:49 2°**₹**32'24 -2754 May 15 j 10:36 $0^{\circ}\Pi$ retrograde -2760 Apr 16 j 14:43 -2754 Jun 11 j 01:49 5°**Ⅱ**40'05 desc. node 2°×730'59 evening set -2760 May 24 j 05:24 30°RM 8°II38'21 0°21'43 -2760 Jun 12 j 15:15 27° M 35'41 0°-10'-4 -2754 Jun 24 j 14:19 opposition conjunction -2760 Jun 12 j 22:44 27° M 33'16 4.09002 AU -2754 Jun 24 j 14:17 8°II38'20 0°21'47 min. Earth dist. minimum elong direct -2760 Aug 11 j 11:27 22°M42'05 max. Earth dist. -2754 Jun 24 j 15:35 8°ДЗ9'03 6.33575 AU -2760 Oct 21 j 02:02 0°⊀ morning rise -2754 Jul 08 j 00:24 11°**II**35'13 evening set -2760 Dec 13 j 19:28 11°**х** 41'02 retrograde -2754 Nov 06 j 12:10 28°**II**54'24 opposition -2753 Jan 05 j 08:04 23°**Ц**58'08 0°59'58 -2760 Dec 26 j 17:18 14° ₹ 45'22 0°-29'-38 min. Earth dist. -2753 Jan 05 j 15:06 23°**Д**55'49 4.37502 AU conjunction -2760 Dec 26 j 17:16 14° ₹ 45'20 0°29'43 -2753 Mar 08 j 02:13 18°**Д**54'34 minimum elong direct -2760 Dec 26 j 19:39 14°**x**⁷46'46 -2753 Jun 11 j 01:25 max. Earth dist. 6.04376 AU -2759 Jan 08 j 17:55 17° ₹ 51'16 -2753 Jul 13 j 16:46 morning rise evening set 6°9548'25 -2759 Mar 05 i 12:49 0°ರ -2759 May 20 j 00:28 -2753 Jul 26 i 20:38 9°540'25 0°58'05 retrograde 7°る56'20 conjunction -2759 Jul 19 i 11:54 -2753 Jul 26 i 20:35 opposition 2°**ප**55'40 -1°-16'-12 minimum elong 9°9540'24 0°58'10 -2753 Jul 25 i 23:12 min. Earth dist. -2759 Jul 18 i 23:09 2°る59'53 4.01104 AU max. Earth dist. 9°**©**28'43 6.40064 AU morning rise -2759 Aug 12 j 05:44 30°R ✓ -2753 Aug 08 j 21:05 12°530'45 direct -2759 Sep 16 j 01:16 28° ₹ 02'26 retrograde -2753 Dec 07 j 01:43 29°527'32 -2759 Oct 20 j 13:09 -2752 Feb 05 j 08:37 24°534'21 1°42'00 0°ನ opposition -2758 Jan 18 j 14:32 17°**♂**22'51 min. Earth dist. -2752 Feb 06 j 05:23 24°527'39 4.41211 AU evening set direct -2752 Apr 07 j 20:50 19°531'38 conjunction -2758 Jan 31 j 19:45 20°₹32'30 -1°-6'-32 -2752 Jul 09 j 00:46 0 $^{\circ}\Omega$ minimum elong -2758 Jan 31 j 19:43 20°₹32'28 1°06'37 evening set -2752 Aug 13 j 02:35 7°**Ω**18′10 max. Earth dist. -2758 Feb 02 j 02:15 20° 350'46 5.99494 AU max. Earth dist. -2752 Aug 24 j 07:19 9°**Ω**45'13 6.40593 AU -2758 Feb 14 j 04:09 23°정43'54 morning rise -2758 Mar 13 j 06:40 -2752 Aug 25 j 21:48 10° **Ω**06'22 1°17'45 0°≈ conjunction -2758 Jun 26 j 12:17 14°≈10'07 -2752 Aug 25 j 21:47 10°**Ω**06'21 1°17'49 retrograde minimum elong -2752 Sep 07 j 14:11 12° Ω 53'12 min. Earth dist. -2758 Aug 24 j 08:34 9°≈14'57 3.99935 AU morning rise opposition -2758 Aug 25 j 10:44 9°**≈**06'07 -1°-54'-28 -2752 Sep 17 j 08:18 15°**Ω**

direct

evening set

conjunction

-2758 Oct 22 j 09:58

-2757 Jan 17 j 13:51 15°≈

-2757 Feb 24 j 16:16 23°≈35'48

-2757 Mar 10 j 04:54 26°≈47'34 -1°-18'-17

4°≈11'10

retrograde

opposition

direct

min. Earth dist.

-2751 Jan 06 j 04:22 29° Ω 54'24

-2751 Mar 07 j 20:28 25°**Ω**02'46

-2751 Mar 09 j 03:26 24°**Ω**52'54

-2751 May 09 j 13:42 20°**Ω**01'57

-2751 Aug 06 j 10:40

1°55'57

4.38645 AU

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2751 in astronomical counting style is the year 2752 BCE in historical counting style. -2751 Sep 12 j 23:37 7° m 53'56 -2746 Dec 26 j 15:54 15°≈ evening set -2751 Sep 23 j 17:03 10° mp 17'11 6.35036 AU -2745 Mar 01 j 22:06 28°≈46'28 max. Earth dist. evening set -2745 Mar 07 j 03:14 0°**∀** -2751 Sep 25 j 13:44 10° mp 42'07 1°15'49 conjunction minimum elong -2751 Sep 25 j 13:46 10° m 42'08 1°15'50 conjunction -2745 Mar 15 j 11:36 1°**升**58'10 -1°-17'-29 -2751 Oct 08 j 02:02 13° m 29'33 -2745 Mar 15 j 11:37 morning rise minimum elong 1°**¥**58'10 1°17'31 -2745 Mar 17 j 11:29 -2750 Jan 12 j 20:38 0∘ಹ max. Earth dist. 2°**)** 26'24 6.03033 AU retrograde -2750 Feb 07 j 11:40 1°**≏**00'32 morning rise -2745 Mar 29 j 03:52 5°**光**11′06 -2750 Mar 05 j 05:29 30°R M retrograde -2745 Aug 06 j 16:47 25°**米**07'28 opposition -2750 Apr 09 j 12:00 26° Mp 08'35 1°37'23 min. Earth dist. -2745 Oct 03 j 23:11 20° **X** 12'41 4.07456 AU min. Earth dist. -2750 Apr 10 j 18:50 25° **m** 58'47 4.30434 AU opposition -2745 Oct 05 j 05:39 20°**₩**02'15 -1°-44'-8 -2750 Jun 10 j 15:21 21° Mp 10'21 -2745 Dec 02 j 13:44 direct direct 15°**)**€03'43 -2744 Mar 19 j 13:03 $0^{\circ}\Upsilon$ -2750 Aug 31 j 07:17 0∘**⊽** evening set -2750 Oct 14 j 04:09 9°**£**19'40 evening set -2744 Apr 06 j 21:40 4°Υ08'06 max. Earth dist. -2750 Oct 25 j 04:22 11°**⊆**50'19 6.24843 AU conjunction -2744 Apr 20 j 16:02 7°**Υ**17'32 0°-56'-9 conjunction -2750 Oct 26 j 17:41 12°**£**11'40 0°51'44 minimum elong -2744 Apr 20 j 16:06 7°**Y**17'34 0°56'09 minimum elong -2750 Oct 26 j 17:44 12°**£**11'42 0°51'44 max. Earth dist. -2744 Apr 22 j 12:56 7°**Υ**43'20 6.12816 AU morning rise -2750 Nov 08 j 06:45 15°**£**03'42 morning rise -2744 May 04 j 11:08 10°**Y**27′10 -2749 Jan 24 j 11:59 0°M retrograde $-2744 \text{ Sep } 08 \text{ j } 15:56 \quad 29^{\circ} \Upsilon 24'53$ retrograde -2749 Mar 13 j 17:22 3°M25'04 min. Earth dist. -2744 Nov 06 j 03:46 24°Υ29'14 4.18795 AU -2749 May 02 j 00:20 30°R Ω opposition -2744 Nov 07 i 02:15 24°**Υ**21'36 0°-55'-32 opposition -2749 May 13 i 18:48 28°**2**31'11 0°48'12 direct $-2743 \text{ Jan } 05 \text{ i } 10.54 19^{\circ} \Upsilon 20'09$ min. Earth dist. -2749 May 14 j 17:17 28°**2**23'59 4.18827 AU -2743 Apr 05 i 10:37 0°8 direct -2749 Jul 13 j 20:10 23°**♀**35'45 -2743 May 12 j 15:06 7°**8**55'44 evening set -2749 Sep 18 j 16:48 0°M -2749 Nov 15 j 12:40 12° ML10'57 -2743 May 26 j 08:37 10°\(259'43\) 0°-16'-14 evening set conjunction -2749 Nov 27 j 09:01 14°ML57'25 -2743 May 26 j 08:39 10°**8**59'44 max. Earth dist. 6.12892 AU minimum elong 0°16'13 -2749 Nov 27 j 13:26 15°M -2743 May 27 j 07:56 11°**8**12'45 6.24834 AU max. Earth dist. -2743 Jun 09 j 01:07 14°**8**02'55 morning rise -2749 Nov 28 j 05:26 15°M 09'23 0°10'34 -2743 Jun 13 j 08:21 15°8 conjunction -2749 Nov 28 j 05:27 15°**M**.09'23 -2743 Sep 05 j 01:20 0°**П** minimum elong 0°10'31 -2749 Nov 27 j 23:08 15°M05'42 behind sun begin -2743 Oct 10 j 17:45 2°**Ⅲ**00′01 retrograde 1°**Ⅱ**53'15 -2749 Nov 28 j 11:45 15°ML13'05 -2743 Oct 18 j 23:10 behind sun end asc. node -2749 Dec 10 j 23:43 18° ML08'46 -2743 Nov 15 j 06:09 30°R℃ morning rise -2748 Feb 04 j 08:26 0° **尽** -2743 Dec 09 j 07:59 27°**8**00'21 0°08'23 opposition -2743 Dec 09 j 00:40 27°**8**02'48 4.30341 AU desc. node -2748 Feb 25 j 18:25 3°**∡**³31′06 min. Earth dist. retrograde -2748 Apr 17 j 20:19 7°**∡**³30′18 direct -2742 Feb 08 j 01:17 21°**8**57'08 opposition -2748 Jun 17 j 17:11 2°**∡**33'02 0°-19'-57 -2742 Apr 26 j 23:09 min. Earth dist. -2748 Jun 17 j 21:17 2°**⋌**³31'42 4.07433 AU evening set -2742 Jun 15 j 14:48 10°**耳**05'53 -2748 Jul 08 j 08:48 30°RM -2748 Aug 16 j 07:57 27°M39'34 -2742 Jun 29 j 02:21 13°**Д**03'05 0°27'22 direct conjunction -2748 Sep 23 j 16:12 0° ₹ -2742 Jun 29 j 02:19 13°**Д**03'04 0°27'27 minimum elong -2748 Dec 18 j 16:50 16° ₹ 42'52 max. Earth dist. -2742 Jun 29 j 01:06 13°**Ⅱ**02'24 evening set 6.35069 AU -2742 Jul 12 j 10:59 15°**Ⅲ**58'47 morning rise conjunction -2748 Dec 31 i 15:46 19° ₹ 48'11 0°-35'-47 -2742 Sep 25 i 13:55 minimum elong -2748 Dec 31 i 15:44 19° ₹ 48'09 0°35'53 retrograde -2742 Nov 10 j 15:12 3°9512'34 max. Earth dist. -2748 Dec 31 i 23:21 19° ₹ 52'42 6.03129 AU -2742 Dec 27 i 03:49 30°RII morning rise -2747 Jan 13 j 17:20 22° ₹755'05 opposition -2741 Jan 09 i 13:30 28° II 16'48 1°07'01 -2747 Feb 13 i 14:06 0°₹ min. Earth dist. -2741 Jan 09 j 22:15 28° **II** 13'56 4.38561 AU -2747 May 25 j 08:02 13°る06'11 direct -2741 Mar 12 j 10:18 23°**Ⅲ**13'19 retrograde -2747 Jul 24 j 16:38 8°중04'59 -1°-23'-50 -2741 May 23 j 02:16 opposition 0ಂತಿ -2747 Jul 24 j 02:19 min. Earth dist. 8°る09'45 4.00336 AU -2741 Jul 18 j 00:31 11°504'53 evening set 3°**ರ**11'41 direct -2747 Sep 21 j 03:29 max. Earth dist. -2741 Jul 30 j 00:44 13°5541'48 6.40583 AU evening set -2746 Jan 23 j 18:15 22°♂34'30 conjunction -2741 Jul 31 j 02:57 13°556'07 1°01'52 -2741 Jul 31 j 02:54 13°556'05 conjunction -2746 Feb 06 j 00:29 25°₹44'44 -1°-9'-57 minimum elong 1°01'57 -2746 Feb 06 j 00:26 25°정44'42 1°10'01 -2741 Aug 13 j 02:17 16°9545'46 minimum elong morning rise -2746 Feb 07 j 10:10 26°중04'54 5.99278 AU -2741 Oct 22 j 08:02 max. Earth dist. 0 $^{\circ}$ Ω -2746 Feb 19 j 10:06 28°**궁**56'43 -2741 Dec 11 j 07:00 morning rise retrograde 3°**Ω**41'35 -2740 Jan 31 j 06:34 30°Rூ -2746 Feb 23 j 20:59 0°≈ -2746 May 08 j 15:59 15°≈ opposition -2740 Feb 09 j 14:13 28°548'45 1°45'40 retrograde -2746 Jul 01 j 16:31 19°≈22'38 min. Earth dist. -2740 Feb 10 j 14:11 28°541'02 4.41172 AU -2746 Aug 25 j 10:31 15°R≈ direct -2740 Apr 12 j 05:09 23°546'12 min. Earth dist. -2746 Aug 29 j 09:10 14°≈28'03 4.00357 AU -2740 Jun 19 j 18:24 0 $^{\circ}$ Ω -2746 Aug 30 j 13:52 14°≈18'20 -1°-56'-24 -2740 Aug 17 j 07:34 11°**Ω**33'12 opposition evening set

max. Earth dist.

-2740 Aug 28 j 09:40 13° **Ω** 59'04 6.39977 AU

-2746 Oct 27 j 11:42 9°≈23'03

direct

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2740 in astronomical counting style is the year 2741 BCE in historical counting style. -2740 Aug 30 j 02:03 14°Ω21'17 1°18'47 minimum elong -2734 Feb 11 i 07:07 1°≈01'30 1°12'55 conjunction -2740 Aug 30 j 02:02 14° **Ω**21'16 1°18'50 -2734 Feb 12 j 20:04 minimum elong max Earth dist 1°≈23'36 5.99487 AU -2740 Sep 02 j 00:25 15°Ω -2734 Feb 24 j 17:45 morning rise 4°≈13'48 -2740 Sep 11 j 17:35 17°**Ω**08'02 -2734 Apr 14 j 04:31 morning rise 15°≈ -2740 Nov 17 j 16:54 -2734 Jul 06 j 21:20 24°**≈**37′21 0° m retrograde -2739 Jan 10 j 11:14 retrograde 4° TD 12'46 min. Earth dist. -2734 Sep 03 j 11:49 19°**≈**42'42 4.01179 AU -2739 Mar 07 j 03:18 30°R€ opposition -2734 Sep 04 j 17:19 19°**≈**32'41 -1°-57'-22 1°55'21 -2734 Oct 17 j 18:36 opposition -2739 Mar 12 j 05:21 29°**£**21′13 15°R≈ min. Earth dist. -2739 Mar 13 j 12:27 29°**Ω**11'18 4.37506 AU direct -2734 Nov 01 j 16:33 14°≈36'55 direct -2739 May 13 j 20:15 $24^{\circ}\Omega 20'42$ -2734 Nov 16 j 14:38 15°**≈** -2739 Jul 17 j 10:41 0° M -2733 Feb 18 j 00:07 0°**∀** -2733 Mar 07 j 04:12 evening set -2739 Sep 17 j 05:20 12° m 15'46 evening set 3°**¥**57'40 max. Earth dist. -2739 Sep 27 j 22:47 14° Mp 39'34 6.33456 AU conjunction -2733 Mar 20 j 18:40 7°**)** 69'08 -1°-16'-4 conjunction -2739 Sep 29 j 19:10 15° mg 04'27 1°13'45 minimum elong -2733 Mar 20 j 18:41 7°**₩**09'09 1°16'07 minimum elong -2739 Sep 29 j 19:12 15° Mp 04'28 1°13'46 max. Earth dist. -2733 Mar 22 j 20:42 7°**)** ₹38'32 6.04370 AU morning rise -2739 Oct 12 j 07:22 17° m 52'29 morning rise -2733 Apr 03 j 11:26 10°**)**€21'41 -2739 Dec 11 j 19:21 0∘**ত** -2733 Aug 01 j 15:35 $0^{\circ}\Upsilon$ retrograde -2738 Feb 12 j 03:39 5°**£**30'55 retrograde -2733 Aug 11 j 14:15 0°Y09'49 opposition -2738 Apr 14 j 03:17 0°**ჲ**38'52 1°32'17 -2733 Aug 21 j 11:11 30°**₹** min. Earth dist. -2738 Apr 15 j 10:34 0°**£**28'56 4.28498 AU min. Earth dist. -2733 Oct 08 j 20:26 25° ¥ 14'58 4.09148 AU -2738 Apr 19 i 05:50 30°R M opposition -2733 Oct 10 i 02:25 25° **★** 04'44 -1°-39'-3 direct -2738 Jun 15 i 04:20 25° m 41'04 direct -2733 Dec 07 i 12:48 20° ★ 05'46 -2738 Aug 09 i 02:19 0∘**⊽** -2732 Mar 01 i 00:47 $0^{\circ}\Upsilon$ -2738 Oct 18 j 14:01 13°**£**55'20 -2732 Apr 11 j 23:51 9°Y05'20 evening set evening set max. Earth dist. -2738 Oct 29 j 15:12 16°**2**27'17 6.22720 AU -2732 Apr 25 j 18:15 12°**Υ**14'00 0°-51'-20 conjunction -2738 Oct 31 j 03:50 16° **2**48'21 0°46'50 -2732 Apr 25 j 18:18 12°**Υ**14'02 conjunction minimum elong 0°51'19 -2738 Oct 31 j 03:53 16°**♀**48'22 -2732 Apr 27 j 11:28 12°**Υ**37'35 0°46'47 max. Earth dist. 6.14704 AU minimum elong morning rise -2738 Nov 12 j 17:37 19°**£**41'33 -2732 May 09 j 13:27 15°**Y**22'47 morning rise -2732 Jul 22 j 14:48 -2738 Dec 31 j 02:44 0° 8 0°M -2732 Sep 13 j 04:35 retrograde -2737 Mar 18 j 15:52 8°M12'52 4°**8**10'47 retrograde -2737 May 18 j 17:19 3°M18'35 0°39'23 -2732 Nov 05 j 05:58 30°R**Y** opposition -2737 May 19 j 12:36 -2732 Nov 11 j 16:14 29°**Υ**07'54 0°-46'-59 min. Earth dist. 3°M12'24 4.16678 AU opposition -2737 Jun 16 j 02:10 30°R € -2732 Nov 10 j 19:44 29°**Υ**14'51 4.20689 AU min. Earth dist. -2737 Jul 18 j 12:40 28° **≏**23'32 -2731 Jan 10 j 05:56 24°**Υ**06'05 direct direct -2737 Aug 19 j 16:19 0°M -2731 Mar 15 j 12:06 0°**8** -2737 Nov 11 j 07:02 15°M evening set -2731 May 17 j 10:49 12°**8**36'50 -2737 Nov 20 j 05:29 17°M04'26 -2731 May 28 j 04:26 15°**8** evening set conjunction -2737 Dec 02 j 23:08 20°ML04'04 0°04'01 conjunction -2731 May 31 j 03:54 15°\begin{align*} 39'50 0°-10'-4 \end{align*} -2737 Dec 02 j 23:09 20°ML04'05 -2731 May 31 j 03:54 15°**8**39'51 minimum elong minimum elong -2737 Dec 02 j 15:13 19°M 59'26 behind sun begin -2731 May 30 j 21:17 15°**8**36'10 behind sun begin -2737 Dec 03 j 07:05 20°ML08'44 behind sun end -2731 May 31 j 10:31 15°**8**43'31 behind sun end max. Earth dist. -2737 Dec 02 j 07:42 19°M 54'59 -2731 Jun 01 j 00:37 15°**8**51'23 max. Earth dist. 6.10927 AU 6.26609 AU morning rise -2737 Dec 15 j 18:18 23°ML04'45 morning rise -2731 Jun 13 j 19:21 18°**8**41'53 desc. node -2736 Jan 05 i 08:59 27° ML 48'52 -2731 Aug 08 i 13:50 $0^{\circ}\Pi$ -2736 Jan 15 i 07:44 0°**√** asc. node -2731 Aug 29 i 05:57 3°**Ⅱ**10′52 retrograde -2736 Apr 23 i 04:16 12° x 35'46 retrograde -2731 Oct 15 j 01:56 6°**Ⅲ**31'13 -2736 Jun 22 j 22:00 7°**∡**³37'58 0°-29'-54 -2731 Dec 13 j 17:02 1°**I**I32'09 0°17'15 opposition opposition 1°**Д**33'49 4.31858 AU min. Earth dist. -2736 Jun 22 j 23:50 7°**∡**37'22 4.05834 AU min. Earth dist. -2731 Dec 13 j 12:01 -2736 Aug 21 j 08:29 2°**×**⁷44'41 -2731 Dec 25 j 10:07 30°R8 direct -2736 Dec 23 j 17:15 21° ₹ 52'17 -2730 Feb 12 j 14:42 26°**8**28'49 evening set direct -2730 Apr 03 j 01:41 $0^{\circ}\Pi$ conjunction -2735 Jan 05 j 17:09 24° **₹** 58'31 0°-41'-47 evening set -2730 Jun 20 j 04:43 14°**II**34'10 minimum elong -2735 Jan 05 j 17:06 24° ₹ 58'30 0°41'53 -2735 Jan 06 j 04:49 25°**尽** 05'30 6.02035 AU conjunction -2730 Jul 03 j 14:57 17°**Д**30'24 0°32'56 max. Earth dist. -2730 Jul 03 j 14:55 17°**Д**30'23 -2735 Jan 18 j 19:59 28° ₹ 06'26 0°33'00 morning rise minimum elong -2735 Jan 26 j 20:18 0°ಕ -2730 Jul 03 j 08:22 17°**Ⅲ**26'48 max. Earth dist. 6.36205 AU -2735 May 30 j 15:29 18°る22'21 -2730 Jul 16 j 22:28 20°**Ⅲ**25'09 retrograde morning rise -2735 Jul 29 j 23:22 13°₹20'36 -1°-30'-52 -2730 Sep 02 j 00:52 opposition 0ಂತಾ min. Earth dist. -2735 Jul 29 j 05:14 13°**♂**26'39 3.99896 AU retrograde -2730 Nov 14 j 21:25 7°934'47 direct -2735 Sep 26 j 06:10 8°**る**27'09 opposition -2729 Jan 13 j 20:32 2°939'29 1°13'50 evening set -2734 Jan 28 j 23:56 27°る50'58 min. Earth dist. -2729 Jan 14 j 08:22 2°535'37 4.39272 AU -2734 Feb 07 j 00:18 -2729 Feb 04 j 07:33 30°RⅡ -2729 Mar 16 j 21:22 27° II 35'58 direct -2734 Feb 11 j 07:09 1°≈01'31 -1°-12'-50 -2729 Apr 26 j 18:59 conjunction

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 16

-	ical year style is used: Th		•	, · ·		, .	
evening set	-2729 Jul 22 j 09:49	-		minimum elong	-2723 Jan 10 j 17:20	0° පි 04'05	
max. Earth dist.	-2729 Aug 03 j 07:28	18° 5 01'48	6.40806 AU		-2723 Jan 10 j 10:31	ರ°0	
				max. Earth dist.	-2723 Jan 11 j 09:09	0° る 13'33	6.01541 AU
conjunction	-2729 Aug 04 j 11:13	18° © 16'57	1°05'24	morning rise	-2723 Jan 23 j 21:13	3° る 12'40	
minimum elong	-2729 Aug 04 j 11:10	18° © 16'56	1°05'29	retrograde	-2723 Jun 04 j 20:21		
morning rise	-2729 Aug 17 j 09:11	21° 5 06'00		min. Earth dist.	-2723 Aug 03 j 06:52		3.99945 AU
	-2729 Sep 29 j 22:55	0 $^{\circ}$ Ω		opposition	• •	18° る 28'39	-1°-36'-59
retrograde	-2729 Dec 15 j 12:39	8° Ω 01'44		direct	-2723 Oct 01 j 08:53	13° る 34'58	
opposition	-2728 Feb 13 j 22:18	3° Ω 09'11	1°48'52		-2722 Jan 21 j 11:14	0° ≈	
min. Earth dist.	-2728 Feb 14 j 23:12	3° Ω 01'11	4.40922 AU	evening set	-2722 Feb 03 j 02:35	2° ≈ 58'19	
r.	-2728 Mar 11 j 12:04	30°R≌		. ,.	2722 F. L. 16: 10.54	(000102	10 151 2
direct	-2728 Apr 16 j 13:25	28° © 06'52 0° Ω		conjunction	-2722 Feb 16 j 10:54	6°≈09'03	-1°-15'-3 1°15'08
	-2728 May 22 j 19:16 -2728 Aug 17 j 10:33	15° Ω		minimum elong max. Earth dist.	-2722 Feb 16 j 10:53 -2722 Feb 18 j 03:37	6°≈09'02 6°≈33'20	6.00056 AU
evening set	-2728 Aug 17 j 10.33	15° Ω 54'42		morning rise	-2722 Mar 01 j 22:21	0 ≈33 20 9°≈21'25	0.00030 AU
max. Earth dist.	-2728 Sep 01 j 13:53		6 39255 AU	morning risc	-2722 Mar 01 j 22:21 -2722 Mar 26 j 08:32	15° ≈	
max. Darm dist.	2720 Sep 01 j 15.55	10 001711	0.57255 110	retrograde	-2722 Jul 11 j 21:59	29° ≈ 41'07	
conjunction	-2728 Sep 03 j 08:28	18° Ω 42'40	1°19'26	min. Earth dist.	-2722 Sep 08 j 10:25	24°≈46'28	4.02219 AU
minimum elong	-2728 Sep 03 j 08:27	18° Ω 42'40	1°19'28	opposition	-2722 Sep 09 j 16:23	24° ≈ 36'17	-1°-57'-22
morning rise	-2728 Sep 15 j 23:24	21° Ω 29'27		direct	-2722 Nov 06 j 15:53	19° ≈ 40′09	
	-2728 Oct 26 j 23:40	0° m)			-2721 Jan 30 j 23:05	0° ∀	
retrograde	-2727 Jan 14 j 23:30	8°m)37'59		evening set	-2721 Mar 12 j 06:20	8°) 57′52	
opposition	-2727 Mar 16 j 17:31	3° ™ 46′29	1°54'06				
min. Earth dist.	-2727 Mar 18 j 02:08	3°₩36'06	4.36362 AU	conjunction	-2721 Mar 25 j 21:22	12° ∺ 09′00	-1°-14'-8
	-2727 Apr 19 j 11:02	30° R Ω		minimum elong	-2721 Mar 25 j 21:24		1°14'11
direct	-2727 May 18 j 08:27	28° Ω 46′19		max. Earth dist.	-2721 Mar 27 j 21:37		6.05754 AU
	-2727 Jun 16 j 04:59	0° m)		morning rise	-2721 Apr 08 j 14:53	15° ∺ 21'11	
evening set	-2727 Sep 21 j 13:36	16° m 44'04			-2721 Jun 19 j 05:30	0°Υ	
max. Earth dist.	-2727 Oct 02 j 07:21	19°Mp08'32	6.31990 AU	retrograde	-2721 Aug 16 j 06:06	5° Υ 01'22	
	2727 0 4 04 102 10	1007 2011 5	1011112	opposition	-2721 Oct 14 j 18:59	29°) 56'28	-1°-33'-26
conjunction	-2727 Oct 04 j 03:18	-•	1°11'12	min. Earth dist.	-2721 Oct 13 j 13:48	0°Υ06'26	4.10719 AU
minimum elong morning rise	-2727 Oct 04 j 03:20 -2727 Oct 16 j 15:25	19° m 33'17 22° m 21'53	1*11.14	direct	-2721 Oct 14 j 08:38 -2721 Dec 12 j 08:21	30° ₹ 24° 升 57'03	
morning rise	-2727 Oct 10 j 13:23	0° ⊽		direct	-2720 Feb 08 j 05:11	24 χ 3/03	
retrograde	-2726 Feb 16 j 19:55	0 <u>=</u> 10° <u>₽</u> 07'13		evening set	-2720 Apr 16 j 22:02		
opposition	-2726 Apr 18 j 21:00	5° 2 14'58	1°26'28	evening set	-2720 Apr 10 J 22.02	13 3237	
min. Earth dist.	-2726 Apr 20 j 02:09	5° Ω 05'42	4.26822 AU	conjunction	-2720 Apr 30 j 16:44	17° Y ′00'43	0°-46'-19
direct	-2726 Jun 19 j 17:20	0° ჲ 17'37		minimum elong	-2720 Apr 30 j 16:47		0°46'19
evening set	-2726 Oct 23 j 02:03	18° ≏ 35'44		max. Earth dist.	-2720 May 02 j 07:54	17° Y 23′02	6.16353 AU
max. Earth dist.	-2726 Nov 03 j 06:41		6.21003 AU	morning rise	-2720 May 14 j 11:38	20° Y ′08'40	
					-2720 Jun 29 j 21:59	0°8	
conjunction	-2726 Nov 04 j 16:12	21° ≏ 29'37	0°41'32	retrograde	-2720 Sep 17 j 16:27	8° 8 48'17	
minimum elong	-2726 Nov 04 j 16:14	21° ≏ 29'38	0°41'30	min. Earth dist.	-2720 Nov 15 j 09:14	3° 8 52'01	4.22245 AU
morning rise	-2726 Nov 17 j 06:30	24° ≏ 23'48		opposition	-2720 Nov 16 j 03:06	3° 8 45'58	0°-38'-26
	-2726 Dec 12 j 07:38	0°M₊			-2720 Dec 17 j 19:49	30° ₹ Υ	
retrograde	-2725 Mar 23 j 17:45	13° ™ 03'31		direct	-2719 Jan 14 j 21:24	28° Y 43′55	
opposition	-2725 May 23 j 17:24	8°M08'51	0°30'10		-2719 Feb 12 j 07:08	0°8	
min. Earth dist.	-2725 May 24 j 11:05	8°M.03'10	4.15047 AU		-2719 May 12 j 04:27		
direct	-2725 Jul 23 j 09:05	3°M14'10 15°M		evening set	-2719 May 22 j 04:02	17 01119	
desc. node	-2725 Oct 25 j 02:13 -2725 Nov 15 j 03:53	19°M42'01		conjunction	-2719 Jun 04 j 20:24	200×13/30	0°-4'-1
evening set	-2725 Nov 24 j 22:58			minimum elong	-2719 Jun 04 j 20:24		0°03'58
evening set	2725 110V 24 J 22.50	21 11030 44		behind sun begin	-2719 Jun 04 j 12:13		0 03 30
conjunction	-2725 Dec 07 j 17:21	24°M59'17	0°-2'-43	behind sun end	-2719 Jun 05 j 04:38		
minimum elong	-2725 Dec 07 j 17:22	24°M59'18	0°02'47	max. Earth dist.	-2719 Jun 05 j 12:29		6.27957 AU
behind sun begin	-2725 Dec 07 j 09:19	24°M54'34		morning rise	-2719 Jun 18 j 11:10		
behind sun end	-2725 Dec 08 j 01:24	25°M04'01		asc. node	-2719 Jul 10 j 10:58		
max. Earth dist.	-2725 Dec 07 j 05:27	24°M52'16	6.09548 AU		-2719 Jul 20 j 04:41	$\Pi^{\circ}0$	
morning rise	-2725 Dec 20 j 13:33	28°M01'00		retrograde	-2719 Oct 19 j 08:19	10° Ⅱ 58′03	
	-2725 Dec 29 j 01:33	0° ∡ 7		opposition	-2719 Dec 18 j 00:29	5° Ⅱ 59'33	0°25'49
retrograde	-2724 Apr 28 j 07:54	17° ∡ ³39′00		min. Earth dist.	-2719 Dec 17 j 21:45	6° ∏ 00′28	4.32917 AU
opposition	-2724 Jun 28 j 01:48	12° х 40′39	0°-39'-33	direct	-2718 Feb 17 j 01:48	0° П 56'07	
min. Earth dist.	-2724 Jun 27 j 23:40	12° x ⁷ 41'20	4.04862 AU	evening set	-2718 Jun 24 j 17:04	18° Ⅱ 59'43	
direct	-2724 Aug 26 j 07:03	7° × ⁷ 47'32		comir	2710 1-1 00:02 10	21017 5511 5	0020112
evening set	-2724 Dec 28 j 16:38	26° ₰ 757'17		conjunction	-2718 Jul 08 j 02:18		0°38'13 0°38'17
conjunction	-2723 Ian 10: 17:24	0° る 04'07	0°-47' 21	minimum elong max. Earth dist.	-2718 Jul 08 j 02:16 -2718 Jul 07 j 17:14		
conjunction	-2723 Jan 10 j 17:24	0 0040/	0 -4/-21	max. Earth dist.	-2/10 Jul 0/J1/:14	Δ1 Щ 30/1/	0.30909 AU

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 17

Attention, astronomical year style is used: The year -2718 in astronomical counting style is the year 2719 BCE in historical counting style.

morning rise

-2718 Jul 21 j 08:28 24° II 49'11 direct

-2712 Aug 31 j 06:17 12° ₹ 47'17

-2718 Aug 14 j 18:11 0° €

-2718 Nov 19 j 03:29 11° ₹ 56'20 evening set 2711 Ion 02 j 14:46 1° ₹ 59'16

-2718 Nov 19 j 03:29 -2711 Jan 02 j 14:46 1°**る**59'16 11°956'20 retrograde evening set -2717 Jan 18 j 03:32 7°**©**01'34 1°20'09 opposition 4.39598 AU -2717 Jan 18 j 17:15 conjunction -2711 Jan 15 j 16:36 5°**る**06'47 min. Earth dist. 6°957'05 0°-52'-33 -2711 Jan 15 j 16:33 direct -2717 Mar 21 j 06:45 1°958'13 minimum elong 5°**る**06'45 0°52'38 -2711 Jan 16 j 12:40 evening set -2717 Jul 26 j 19:03 19°548'22 max. Earth dist. 5°**る**18'48 6.01001 AU max. Earth dist. -2717 Aug 07 j 11:45 22°521'24 6.40715 AU morning rise -2711 Jan 28 j 21:25 8°**ප**16'00 retrograde -2711 Jun 10 j 00:49 28° 중36'40 conjunction -2717 Aug 08 j 19:08 22°538'34 1°08'32 min. Earth dist. -2711 Aug 08 j 07:14 23°정41'10 3.99862 AU minimum elong -2717 Aug 08 j 19:06 22°538'32 1°08'36 opposition -2711 Aug 09 j 04:46 23°₹33'57 -1°-42'-22 -2717 Aug 21 j 16:08 25°527'13 -2711 Oct 06 j 08:32 18°₹40'00 morning rise direct -2717 Sep 12 j 00:36 -2710 Jan 03 j 19:56 0 $^{\circ}\Omega$ 0°≈ retrograde -2717 Dec 19 j 21:17 $12^{\circ}\Omega$ 23'57 evening set -2710 Feb 08 j 04:45 8°≈03'39 opposition -2716 Feb 18 j 07:22 7°**Ω**31'39 1°51'27 7°**Ω**23'07 min. Earth dist. -2716 Feb 19 j 09:56 4.40455 AU conjunction -2710 Feb 21 j 13:53 11°≈14'37 -1°-16'-43 direct -2716 Apr 20 j 23:34 2°**£**29'33 minimum elong -2710 Feb 21 j 13:51 11°≈14'36 1°16'47 -2716 Aug 01 j 00:54 15°**Ω** max. Earth dist. -2710 Feb 23 j 07:00 11°≈39'06 6.00399 AU evening set -2716 Aug 25 j 22:46 $20^{\circ}\Omega$ 18'39 morning rise -2710 Mar 07 j 02:25 14°≈27'14 max. Earth dist. -2716 Sep 05 j 21:42 $22^{\circ}\Omega 43'27$ 6.38448 AU -2710 Mar 09 j 10:01 15°≈ -2710 May 21 j 14:03 0°\ conjunction -2716 Sep 07 j 15:39 $23^{\circ}\Omega$ 06'38 $1^{\circ}19'36$ retrograde -2710 Jul 16 i 20:16 4° **)** 43'56 minimum elong -2716 Sep 07 i 15:39 $23^{\circ}\Omega 06'38$ 1°19'38 -2710 Sep 12 i 00:35 30°R≈ morning rise -2716 Sep 20 j 05:47 25° Ω 53'27 min. Earth dist. -2710 Sep 13 j 07:54 29°≈49'21 4.02960 AU -2716 Oct 09 i 06:22 0° m opposition -2710 Sep 14 j 14:39 29°≈38'52 -1°-56'-33 -2715 Jan 19 j 10:23 13° m 05'56 direct -2710 Nov 11 j 14:36 24°≈42'14 retrograde -2715 Mar 21 j 06:29 8° m 14'26 1°52'08 -2709 Jan 09 j 03:19 0°**₩** opposition -2715 Mar 22 j 14:09 8° Mp 04'22 4.35276 AU -2709 Mar 17 j 08:48 13° ¥ 58'12 min. Earth dist. evening set -2715 May 22 j 18:48 3° m 14'39 direct -2709 Mar 31 j 00:45 17° **★** 09'13 -1°-11'-40 evening set -2715 Sep 25 j 22:13 21° m 14'33 conjunction -2715 Oct 06 j 16:10 23° m/39'39 -2709 Mar 31 j 00:48 17° **米** 09'15 1°11'42 max. Earth dist. 6.30703 AU minimum elong -2709 Apr 02 j 01:20 17° **€** 37'34 6.06832 AU max. Earth dist. -2715 Oct 08 j 11:35 24° m 04'09 morning rise -2709 Apr 13 j 18:38 20°**∺**21'05 conjunction 1°08'13 -2715 Oct 08 j 11:37 24° m 04'11 1°08'13 -2709 May 27 j 21:45 $0^{\circ}\Upsilon$ minimum elong -2715 Oct 20 j 23:49 26° m 53'20 -2709 Aug 21 j 01:14 9°**Υ**54'19 morning rise retrograde 4°**Υ**'58'56 4.11995 AU -2715 Nov 04 j 00:19 0°**≏** -2709 Oct 18 j 08:55 min. Earth dist. -2714 Feb 21 j 15:00 14°**£**44'58 -2709 Oct 19 j 12:09 4°**Y**49'38 -1°-27'-11 retrograde opposition opposition -2714 Apr 23 j 15:19 9°**♀**52'25 1°20'03 -2709 Dec 07 j 04:29 30°R € min. Earth dist. -2714 Apr 24 j 19:52 9°**•**43'20 4.25385 AU direct -2709 Dec 17 j 05:32 29° **€**49'47 direct -2714 Jun 24 j 09:12 4°**♀**55'24 -2709 Dec 27 j 07:01 $0^{\circ}\Upsilon$ -2714 Oct 27 j 13:31 23°**2**16'15 evening set -2708 Apr 21 j 21:37 18°**Y**42'25 evening set max. Earth dist. -2714 Nov 07 j 21:15 25°**2**53'02 6.19541 AU -2708 May 05 j 16:21 21°**Y**49'55 0°-40'-56 conjunction -2714 Nov 09 j 04:07 26°**♀**10'54 0°35'59 -2708 May 05 j 16:24 21°**Y**49'57 0°40'56 conjunction minimum elong -2714 Nov 09 j 04:09 26°**♀**10'56 max. Earth dist. -2708 May 07 j 04:47 22°**Υ**10'37 6.17722 AU minimum elong -2714 Nov 21 j 18:59 29°**£**05'58 $-2708 \text{ May } 19 \text{ j } 11:09 \quad 24^{\circ} \Upsilon 57'13$ morning rise morning rise -2714 Nov 25 i 17:07 0°M -2708 Jun 11 i 08:57 0°8 -2713 Feb 12 i 15:51 15°M retrograde -2708 Sep 22 i 03:51 13°**8**29'19 retrograde -2713 Mar 28 j 16:02 17° ML53'02 opposition -2708 Nov 20 j 15:32 8°\(\mathbf{2}27'27\) 0°-29'-31 -2713 May 12 j 08:34 15°RML min. Earth dist. -2708 Nov 19 j 22:53 8°**と**33'05 4.23580 AU -2713 May 28 j 16:22 12° ML 57'53 0°20'46 direct -2707 Jan 19 j 13:10 3°**8**25'07 opposition min. Earth dist. -2713 May 29 j 06:53 12°M 53'12 4.13660 AU -2707 Apr 24 j 21:17 15°8 -2713 Jul 28 j 02:29 direct -2707 May 20 j 05:25 20°**8**21'15 8°M03'29 asc. node desc. node -2713 Sep 25 j 09:29 13°ML16'21 evening set -2707 May 26 j 22:56 21°**8**49'46 -2713 Oct 05 j 10:15 15°ML evening set -2713 Nov 29 j 15:40 26°M51'02 conjunction -2707 Jun 09 j 14:36 24°851'10 0°02'19 minimum elong -2707 Jun 09 j 14:36 24°**8**51'10 0°02'23 -2713 Dec 12 j 10:43 29°ML52'24 0°-9'-15 behind sun begin -2707 Jun 09 j 06:18 24°**8**46'35 conjunction -2713 Dec 12 j 10:42 29°ML52'23 0°09'21 -2707 Jun 09 j 22:53 24°**8**55'44 minimum elong behind sun end -2713 Dec 12 j 03:54 29°M48'23 -2707 Jun 10 j 03:20 24°\(\begin{array}{c} 58'13 \end{array} behind sun begin max. Earth dist. 6.29175 AU -2707 Jun 23 j 04:21 27°**8**51'25 behind sun end -2713 Dec 12 j 17:30 29°M 56'24 morning rise max. Earth dist. -2713 Dec 12 j 02:02 29°ML47'16 6.08349 AU -2707 Jul 02 j 23:47 $0^{\circ}\Pi$ -2713 Dec 12 j 23:34 0°**∡** retrograde -2707 Oct 23 j 18:31 15°**Ⅲ**29'14 morning rise -2713 Dec 25 j 07:50 2°**х** 55′02 opposition -2707 Dec 22 j 10:15 10°**Ⅲ**31'21 0°34'25 retrograde -2712 May 03 j 11:13 22°**х** 39'24 min. Earth dist. -2707 Dec 22 j 10:11 10°**Ⅲ**31'22 4.33935 AU -2712 Jul 03 j 03:52 17° ₹ 40'26 0°-48'-52 -2706 Feb 21 j 15:58 5°**Д**27'55 opposition direct

-2706 Jun 29 j 07:25 23°**Д**29'35

evening set

min. Earth dist.

-2712 Jul 02 j 23:35 17°**х** 41'51 4.03952 AU

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2706 in astronomical counting style is the year 2707 BCE in historical counting style. -2706 Jul 12 j 15:25 26°**Д**24'18 0°43'25 max. Earth dist. -2701 Dec 16 i 20:05 4° **₹**34'26 6.07308 AU conjunction -2706 Jul 12 j 15:22 26°**Ⅲ**24'17 -2701 Dec 29 j 23:05 minimum elong 0°43'29 morning rise 7°**х** 40′53 -2706 Jul 12 j 03:12 26° **Ⅲ**17'37 -2700 May 08 j 11:22 27° ₹31'10 max. Earth dist. 6.37658 AU retrograde -2700 Jul 08 j 02:14 22°**尽** 31'47 -2706 Jul 25 j 20:20 29°**Ⅲ**17'25 0°-57'-32 morning rise opposition -2706 Jul 29 j 02:47 -2700 Jul 07 j 20:11 22°**尽** 33'47 0ಂಲ min. Earth dist. 4.03101 AU 17°**∡**³38'41 -2706 Nov 23 j 10:55 16°521'50 retrograde direct -2700 Sep 05 j 00:50 1°26'10 opposition -2705 Jan 22 j 12:32 11°**9**°27'30 -2700 Dec 08 j 13:30 ਾਤ -2699 Jan 07 j 10:06 6°**る**53'16 min. Earth dist. -2705 Jan 23 j 03:31 11°522'37 4.40085 AU evening set direct -2705 Mar 25 j 17:49 6°∽24'17 evening set -2705 Jul 31 j 05:31 24°513'27 conjunction -2699 Jan 20 j 12:44 10°る01'25 0°-57'-12 max. Earth dist. -2705 Aug 11 j 20:52 26°545'46 6.40919 AU minimum elong -2699 Jan 20 j 12:41 10°る01'24 0°57'17 -2699 Jan 21 j 09:55 10°る14'07 max. Earth dist. 6.00397 AU -2699 Feb 02 j 18:45 13°る11'24 conjunction -2705 Aug 13 j 04:29 27°503'04 1°11'21 morning rise minimum elong -2705 Aug 13 j 04:27 27°503'03 1°11'25 -2699 Apr 27 j 08:00 0°≈ morning rise -2705 Aug 26 j 00:10 29°551'09 retrograde -2699 Jun 14 j 23:48 3°≈34'56 -2705 Aug 26 j 16:28 0 $^{\circ}\Omega$ -2699 Aug 03 j 00:57 30°R₹ -2705 Nov 19 j 23:10 15°Ωmin. Earth dist. -2699 Aug 13 j 03:36 28°₹39'41 3.99594 AU retrograde -2705 Dec 24 j 05:44 $16^{\circ}\Omega$ 47'52 opposition -2699 Aug 14 j 02:59 28°₹31'49 -1°-46'-52 -2704 Jan 27 j 17:14 15°RΩ direct -2699 Oct 11 j 04:22 23°る37'36 opposition -2704 Feb 22 j 17:42 11° Ω55'50 1°53'26 -2699 Dec 14 j 14:06 0°≈ min. Earth dist. -2704 Feb 23 j 20:52 11° **Ω**47'08 4.40384 AU evening set -2698 Feb 13 j 04:26 13°≈02'49 direct $-2704 \text{ Apr } 25 \text{ i } 10.26 \quad 6^{\circ} \Omega 54'06$ -2698 Feb 21 i 10:00 15°**≈** -2704 Jul 13 i 16:55 15°Ωevening set -2704 Aug 30 i 06:42 24° Ω42'48 conjunction -2698 Feb 26 i 14:50 16°≈14'16 -1°-17'-46 max. Earth dist. $-2704 \text{ Sep } 10 \text{ j } 03:10 \quad 27^{\circ} \Omega 06'30$ 6.38097 AU minimum elong -2698 Feb 26 i 14:49 16°≈14'15 1°17'49 max. Earth dist. -2698 Feb 28 i 10:24 16°≈40'11 6.00501 AU -2704 Sep 11 j 22:38 $27^{\circ}\Omega 30'34$ $1^{\circ}19'21$ -2698 Mar 12 j 04:11 19°≈27'13 conjunction morning rise -2704 Sep 11 j 22:38 27° **Ω** 30'34 1°19'24 -2698 Apr 28 j 18:38 0°**∀** minimum elong -2704 Sep 23 j 04:53 0° Mp -2698 Jul 21 j 19:10 retrograde 9°**)**41'57 -2704 Sep 24 j 12:17 0° Mp 17'17 -2698 Sep 18 j 04:40 4°**)**47'04 4.03424 AU min. Earth dist. morning rise -2703 Jan 23 j 22:48 17° m 32'23 -2698 Sep 19 j 10:39 4°**¥**36'50 -1°-54'-55 retrograde opposition -2703 Mar 25 j 19:32 12° mp 40'50 1°49'31 -2698 Nov 02 j 12:36 30°R≈ opposition -2703 Mar 27 j 03:22 12° m 30'43 -2698 Nov 16 j 11:59 29°≈39'50 min. Earth dist. 4.34657 AU direct -2703 May 27 j 07:02 7° m 41'24 -2698 Nov 30 j 11:47 0°**)**€ direct -2703 Sep 30 j 05:34 25° m 41'49 -2697 Mar 22 j 09:48 18° ¥ 55'16 evening set evening set -2703 Oct 11 j 01:38 28° m 08'21 6.29878 AU max. Earth dist. -2697 Apr 05 j 02:30 22° ¥ 06'18 -1°-8'-43 conjunction conjunction -2703 Oct 12 j 18:54 28° m 31'41 1°04'53 minimum elong -2697 Apr 05 j 02:33 22° ¥ 06'20 1°08'43 -2703 Oct 12 j 18:57 28° m 31'43 1°04'52 max. Earth dist. -2697 Apr 07 j 02:30 22° **∺** 34'13 6.07624 AU minimum elong -2703 Oct 19 j 07:00 0°**♀** morning rise -2697 Apr 18 j 21:04 25° **∺** 18'04 morning rise -2703 Oct 25 j 07:00 1°**≏**21'12 -2697 May 09 j 15:16 0°**Υ** -2702 Feb 26 j 05:40 19°**2**17'36 -2697 Aug 25 j 17:26 14°**Y**45'25 retrograde retrograde -2702 Apr 28 j 07:35 14°**£**24'50 1°13'14 -2697 Oct 23 j 00:48 9°**Υ**50'18 4.13035 AU opposition min. Earth dist. min. Earth dist. -2702 Apr 29 j 10:31 14°**2**16'16 4.24389 AU -2697 Oct 24 j 04:06 9°Υ'40'59 -1°-20'-24 opposition -2702 Jun 28 j 21:31 -2697 Dec 21 j 23:23 4°**Υ**40'45 direct 9°**≏**28'14 direct -2696 Apr 26 j 20:29 23°**Y**31'15 evening set -2702 Oct 31 j 22:59 27° \$\oldsymbol{\Omega}\$50'37 evening set -2702 Nov 10 i 06:48 0°M -2696 May 10 i 15:12 26°**Υ**'38'14 0°-35'-19 max. Earth dist. -2702 Nov 12 i 08:16 0°M28'43 6.18457 AU conjunction minimum elong $-2696 \text{ May } 10 \text{ i } 15:15 \quad 26^{\circ} \Upsilon 38'16 \quad 0^{\circ} 35'18$ -2702 Nov 13 j 13:47 0°ML45'51 0°30'20 max. Earth dist. $-2696 \text{ May } 12 \text{ j } 00:51 \quad 26^{\circ} \Upsilon 57'18$ 6.18949 AU conjunction -2702 Nov 13 i 13:49 0°**M**45′52 0°30'18 -2696 May 24 j 09:45 29°**Υ**44'53 minimum elong morning rise -2702 Nov 26 j 05:20 3°M41'39 -2696 May 25 j 12:43 0°8 morning rise -2701 Jan 18 j 09:35 15°M -2696 Aug 12 j 07:54 15°8 retrograde -2701 Apr 02 j 12:37 22°M35'03 retrograde -2696 Sep 26 j 16:57 18°809'56 -2701 Jun 02 j 12:20 17°**M**.39'26 0°11'28 opposition -2696 Nov 11 j 00:40 15°R8 min. Earth dist. -2701 Jun 03 j 01:18 17°M 35'15 4.12541 AU opposition -2696 Nov 25 j 03:37 13°**8**08'32 0°-20'-28 -2701 Jun 24 j 07:35 15°RM min. Earth dist. -2696 Nov 24 j 13:26 13°**8**13'19 4.24859 AU -2701 Aug 01 j 19:16 12°M 45'16 direct -2695 Jan 24 j 06:11 8°**8**05'56 direct -2701 Aug 07 j 05:14 12°ML48'08 -2695 Mar 29 j 23:44 13°**8**59'35 desc. node asc. node -2701 Sep 08 j 16:14 15°M -2695 Apr 04 j 23:21 15°**8** -2695 May 31 j 17:12 26°**8**27'41 -2701 Nov 27 j 10:38 0°**√** evening set evening set -2701 Dec 04 j 05:12 1°**₹**35'14 conjunction -2695 Jun 14 j 08:10 29°**8**28'15 0°08'30 conjunction -2701 Dec 17 j 01:08 4°**х** 37′25 0°-15′-32 minimum elong -2695 Jun 14 j 08:09 29°**8**28'14 0°08'34 minimum elong -2701 Dec 17 j 01:07 4°**∡**³37'24 0°15'37 behind sun begin -2695 Jun 14 j 00:59 29°**8**24'17 behind sun begin -2701 Dec 16 j 22:50 4°**х** 36′03 behind sun end -2695 Jun 14 j 15:19 29°832'11 -2701 Dec 17 j 03:23 4°**∡**³38'45 max. Earth dist. -2695 Jun 14 j 18:54 29°**8**34'10 6.30412 AU behind sun end

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 19 Attention, astronomical year style is used: The year -2695 in astronomical counting style is the year 2696 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	ne year -2695	in astronomical cou	nting style is the year	2696 BCE in historical c	counting style.	
	-2695 Jun 16 j 17:33	Π $^{\circ}$ 0		evening set	-2689 Dec 08 j 23:54	6° ∡ ³31′01	
morning rise	-2695 Jun 27 j 20:50	2° Ⅲ 27'31					
retrograde	-2695 Oct 28 j 01:23	19° Ⅱ 59'32		conjunction	-2689 Dec 21 j 20:33	9° ∡ ³34′10	0°-21'-59
opposition	-2695 Dec 26 j 19:18	15° Ⅱ 02'03	0°42'45	minimum elong	-2689 Dec 21 j 20:31	9° ∡ ³34′09	0°22'04
min. Earth dist.	-2695 Dec 26 j 20:08	15° Ⅱ 01'47	4.35033 AU	max. Earth dist.	-2689 Dec 21 j 17:46	9° × ⁷ 32'31	6.05856 AU
direct	-2694 Feb 26 j 03:45	9° П 58'31	4.55055710	morning rise	-2688 Jan 03 j 19:44	12°×738'48	0.03030710
evening set	-2694 Jul 03 j 20:26	27° I I57'37		morning risc	-2688 Apr 02 j 06:28	0°る	
evening set				ratra arada		0 0 2° る 36'22	
	-2694 Jul 13 j 05:05	0		retrograde	-2688 May 13 j 16:21		
					-2688 Jun 24 j 07:25		
conjunction	-2694 Jul 17 j 03:06	0°951'26	0°48'19	opposition	-2688 Jul 13 j 05:55		-1°-6'-14
minimum elong	-2694 Jul 17 j 03:03	0° © 51'24	0°48'24	min. Earth dist.	-2688 Jul 12 j 20:34		4.02019 AU
max. Earth dist.	-2694 Jul 16 j 12:01	0°9643'11	6.38507 AU	direct	-2688 Sep 10 j 00:00		
morning rise	-2694 Jul 30 j 06:42	3° 5 43'39			-2688 Nov 18 j 15:20	0°₹	
retrograde	-2694 Nov 27 j 18:17	20°9545'01		evening set	-2687 Jan 12 j 11:29	12° る 01'14	
opposition	-2693 Jan 26 j 20:46	15°951'00	1°31'38				
min. Earth dist.	-2693 Jan 27 j 14:08	15° © 45'22	4.40607 AU	conjunction	-2687 Jan 25 j 15:22	15° ට 10'11	-1°-1'-40
direct	-2693 Mar 30 j 05:19	10°9547'53		minimum elong	-2687 Jan 25 j 15:19	15° る 10'09	1°01'45
evening set	-2693 Aug 04 j 14:13	28° © 35'36		max. Earth dist.	-2687 Jan 26 j 17:43		5.99795 AU
3	-2693 Aug 11 j 01:12	$0^{\circ}\Omega$		morning rise	-2687 Feb 07 j 22:20		
max. Earth dist.	-2693 Aug 16 j 01:34		6.41023 AU	morning rise	-2687 Apr 01 j 17:16	0°≈	
max. Earth dist.	20/3 / tug 10 j 01.54	1 0000 50	0.41023710	retrograde	-2687 Jun 20 j 06:37	8° ≈ 46'42	
	2(02 A 17: 12:00	10 00 4141	1012145	•	•		2 00570 AII
conjunction	-2693 Aug 17 j 12:00		1°13'45	min. Earth dist.	-2687 Aug 18 j 06:30	3°≈51'27	3.99578 AU
minimum elong	-2693 Aug 17 j 11:58	1° Ω 24'39	1°13'49	opposition	-2687 Aug 19 j 06:57	3°≈43'12	-1°-50'-45
morning rise	-2693 Aug 30 j 06:39	4°Ω12'16			-2687 Sep 19 j 18:49	30°Ŗる	
	-2693 Oct 23 j 11:46			direct	-2687 Oct 16 j 07:13		
retrograde	-2693 Dec 28 j 13:31	21° Ω 09'27			-2687 Nov 11 j 18:38	0° ≈	
opposition	-2692 Feb 27 j 03:07	16° Ω 17'30	1°54'49		-2686 Feb 04 j 13:27	15° ≈	
min. Earth dist.	-2692 Feb 28 j 07:04	16° Ω 08'33	4.40067 AU	evening set	-2686 Feb 18 j 09:49	18° ≈ 14'13	
	-2692 Mar 08 j 08:04	15° ŖΩ					
direct	-2692 Apr 29 j 19:47	11° Ω 15'57		conjunction	-2686 Mar 03 j 21:07	21° ≈ 25'50	-1°-18'-17
	-2692 Jun 20 j 16:38	15° Ω		minimum elong	-2686 Mar 03 j 21:07		1°18'21
evening set	-2692 Sep 03 j 13:31	29° Ω 05′04		max. Earth dist.	-2686 Mar 05 j 18:44		6.01074 AU
	-2692 Sep 07 j 17:13	0°m)		morning rise	-2686 Mar 17 j 11:32		
max. Earth dist.	-2692 Sep 14 j 09:57		6.37368 AU	morning rise	-2686 Apr 09 j 17:26	0° \	
max. Larm dist.	-2072 Sep 1+ j 07.37	1 11/2702	0.57500 AC	retrograde	-2686 Jul 26 j 19:11		
conjunction	-2692 Sep 16 j 04:53	1° m 52'51	1010140	•		9°) 54'36	4.04564 AU
,	1 3	-•		min. Earth dist.	-2686 Sep 23 j 02:42		
minimum elong	-2692 Sep 16 j 04:54	1° T 52'52	1°18'42	opposition	-2686 Sep 24 j 10:16	9°) (43'50	-1°-52'-23
morning rise	-2692 Sep 28 j 17:53	4° ™ 39'38		direct	-2686 Nov 21 j 12:19	4°) 46′26	
retrograde	-2691 Jan 28 j 10:33			evening set	-2685 Mar 27 j 14:06	23° ¥ 58'34	
opposition	-2691 Mar 30 j 08:31	17° m) 07'05	1°46'20				
min. Earth dist.	-2691 Mar 31 j 16:34	16° m 56'54	4.33544 AU	conjunction	-2685 Apr 10 j 07:18	27° ₩ 09'07	-1°-5'-13
direct	-2691 May 31 j 18:07	12°M)08'00		minimum elong	-2685 Apr 10 j 07:21	27° ∺ 09'09	1°05'15
	-2691 Oct 03 j 18:31	0∘ ত		max. Earth dist.	-2685 Apr 12 j 06:16	27° ¥ 36′20	6.09240 AU
evening set	-2691 Oct 04 j 13:25	0° ≙ 10'37			-2685 Apr 22 j 14:54	0 ° Υ	
max. Earth dist.	-2691 Oct 15 j 08:45	2° ₽ 37'17	6.28460 AU	morning rise	-2685 Apr 24 j 02:09	0° Y 20′15	
	,			retrograde	-2685 Aug 30 j 10:49	19° Ƴ 38'17	
conjunction	-2691 Oct 17 j 02:35	3° ჲ 01'02	1°01'09	-		14° Y °34'08	-1°-13'-2
minimum elong	2001 000 17 1 02.50	5 — 01 0 2		opposition	-2685 Oct 28 i 21:04	14 1 14 10	
morning rise	-2691 Oct 17 i 02:37	3° £ 01'03		opposition	-2685 Oct 28 j 21:04		
	-2691 Oct 17 j 02:37	3° £ 01'03 5° £ 51'15	1°01'08	min. Earth dist.	-2685 Oct 27 j 19:35	14° Y 42'50	4.14937 AU
Č	-2691 Oct 29 j 15:04	5° ≙ 51'15		min. Earth dist. direct	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31	14° Υ 42'50 9° Υ 33'30	
retrograde	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17	5° £ 51'15 23° £ 54'47	1°01'08	min. Earth dist.	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02	14° Y 42'50 9° Y 33'30 28° Y 18'39	
retrograde opposition	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04	5° Ω 51'15 23° Ω 54'47 19° Ω 01'39	1°01'08 1°05'53	min. Earth dist. direct	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31	14° Υ 42'50 9° Υ 33'30	
retrograde opposition min. Earth dist.	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44	5° £ 51'15 23° £ 54'47 19° £ 01'39 18° £ 53'27	1°01'08	min. Earth dist. direct evening set	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24	14°Y42'50 9°Y33'30 28°Y18'39 0°8	4.14937 AU
retrograde opposition	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44 -2690 Jul 03 j 12:23	5°\$\overline{5}\cdot\$1'15 23°\$\overline{5}\delta'47 19°\$\overline{0}\delta'39 18°\$\overline{5}\delta'27 14°\$\overline{0}\delta'21	1°01'08 1°05'53	min. Earth dist. direct evening set conjunction	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24 -2684 May 15 j 13:37	14°Y42'50 9°Y33'30 28°Y18'39 0°8 1°824'40	4.14937 AU 0°-29'-31
retrograde opposition min. Earth dist.	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44	5° £ 51'15 23° £ 54'47 19° £ 01'39 18° £ 53'27	1°01'08 1°05'53	min. Earth dist. direct evening set	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24	14°Y42'50 9°Y33'30 28°Y18'39 0°8 1°824'40 1°824'42	4.14937 AU
retrograde opposition min. Earth dist.	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44 -2690 Jul 03 j 12:23	5°\$\overline{5}\cdot\$1'15 23°\$\overline{5}\delta'47 19°\$\overline{0}\delta'39 18°\$\overline{5}\delta'27 14°\$\overline{0}\delta'21	1°01'08 1°05'53	min. Earth dist. direct evening set conjunction	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24 -2684 May 15 j 13:37	14°Y42'50 9°Y33'30 28°Y18'39 0°8 1°824'40	4.14937 AU 0°-29'-31
retrograde opposition min. Earth dist. direct	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44 -2690 Jul 03 j 12:23 -2690 Oct 25 j 09:58	5°\$\overline{\Omega}51'15 23°\$\overline{\Omega}54'47 19°\$\overline{\Omega}01'39 18°\$\overline{\Omega}53'27 14°\$\overline{\Omega}05'21 0°\$\mathbb{L}	1°01'08 1°05'53	min. Earth dist. direct evening set conjunction minimum elong	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24 -2684 May 15 j 13:37 -2684 May 15 j 13:40	14°Y42'50 9°Y33'30 28°Y18'39 0°8 1°824'40 1°824'42	4.14937 AU 0°-29'-31 0°29'29
retrograde opposition min. Earth dist. direct	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44 -2690 Jul 03 j 12:23 -2690 Oct 25 j 09:58 -2690 Nov 05 j 10:49	5°\$\overline{5}5'\overline{5}5'\overline{5}5'\overline{4}7\$ 19°\$\overline{9}01'39\$ 18°\$\overline{9}53'27\$ 14°\$\overline{9}05'21\$ 0°\$\overline{1}\$\$0\$ 2°\$\overline{1}31'30\$	1°01'08 1°05'53 4.22737 AU	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24 -2684 May 15 j 13:37 -2684 May 15 j 13:40 -2684 May 16 j 22:00	14°Y42'50 9°Y33'30 28°Y18'39 0°8 1°824'40 1°824'42 1°842'55	4.14937 AU 0°-29'-31 0°29'29
retrograde opposition min. Earth dist. direct	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44 -2690 Jul 03 j 12:23 -2690 Oct 25 j 09:58 -2690 Nov 05 j 10:49	5°\$\overline{5}5'\overline{5}5'\overline{5}5'\overline{4}7\$ 19°\$\overline{9}01'39\$ 18°\$\overline{9}53'27\$ 14°\$\overline{9}05'21\$ 0°\$\overline{1}\$\$0\$ 2°\$\overline{1}31'30\$	1°01'08 1°05'53 4.22737 AU	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24 -2684 May 15 j 13:37 -2684 May 15 j 13:40 -2684 May 16 j 22:00 -2684 May 29 j 07:30	14°Y42'50 9°Y33'30 28°Y18'39 0°B 1°824'40 1°824'42 1°842'55 4°830'09	4.14937 AU 0°-29'-31 0°29'29
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44 -2690 Jul 03 j 12:23 -2690 Oct 25 j 09:58 -2690 Nov 05 j 10:49 -2690 Nov 17 j 00:26 -2690 Nov 18 j 02:20	5° \$\Delta 51'15 23° \$\Delta 54'47 19° \$\Delta 01'39 18° \$\Delta 53'27 14° \$\Delta 05'21 0° \$\mathrm{N}\$. 2° \$\mathrm{N} 31'30 5° \$\mathrm{M} 12'39 5° \$\mathrm{M} 27'43	1°01'08 1°05'53 4.22737 AU 6.16732 AU 0°24'21	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24 -2684 May 15 j 13:37 -2684 May 15 j 13:40 -2684 May 16 j 22:00 -2684 May 29 j 07:30 -2684 Jul 18 j 18:44 -2684 Oct 01 j 01:31	14°Y42'50 9°Y33'30 28°Y18'39 0°8 1°824'40 1°824'42 1°842'55 4°830'09 15°8 22°845'30	4.14937 AU 0°-29'-31 0°29'29 6.20992 AU
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44 -2690 Jul 03 j 12:23 -2690 Oct 25 j 09:58 -2690 Nov 05 j 10:49 -2690 Nov 17 j 00:26 -2690 Nov 18 j 02:20 -2690 Nov 18 j 02:21	5° \$\Delta 51'15 23° \$\Delta 54'47 19° \$\Delta 01'39 18° \$\Delta 53'27 14° \$\Delta 05'21 0° \$\mathrm{L}\$ 2° \$\mathrm{L} 2'39 5° \$\mathrm{L} 2'43 5° \$\mathrm{L} 27'44	1°01'08 1°05'53 4.22737 AU 6.16732 AU	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24 -2684 May 15 j 13:37 -2684 May 15 j 13:40 -2684 May 16 j 22:00 -2684 May 29 j 07:30 -2684 Jul 18 j 18:44 -2684 Oct 01 j 01:31 -2684 Nov 29 j 13:59	14°Y42'50 9°Y33'30 28°Y18'39 0°8 1°824'40 1°824'42 1°842'55 4°830'09 15°8 22°845'30 17°844'37	4.14937 AU 0°-29'-31 0°29'29 6.20992 AU 0°-11'-29
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44 -2690 Jul 03 j 12:23 -2690 Oct 25 j 09:58 -2690 Nov 05 j 10:49 -2690 Nov 17 j 00:26 -2690 Nov 18 j 02:20 -2690 Nov 18 j 02:21 -2690 Nov 30 j 18:29	5° \$\Delta 51'15 23° \$\Delta 54'47 19° \$\Delta 01'39 18° \$\Delta 53'27 14° \$\Delta 05'21 0° \$\mathrm{L} 2\cdot \$\mathrm{M} 130 5° \$\mathrm{M} 12'39 5° \$\mathrm{M} 27'43 5° \$\mathrm{M} 27'44 8° \$\mathrm{M} 24'34	1°01'08 1°05'53 4.22737 AU 6.16732 AU 0°24'21	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24 -2684 May 15 j 13:37 -2684 May 15 j 13:40 -2684 May 16 j 22:00 -2684 May 29 j 07:30 -2684 Jul 18 j 18:44 -2684 Oct 01 j 01:31 -2684 Nov 29 j 13:59 -2684 Nov 29 j 00:55	14°Y42'50 9°Y33'30 28°Y18'39 0°8 1°824'40 1°824'42 1°842'55 4°830'09 15°8 22°845'30 17°844'37 17°849'01	4.14937 AU 0°-29'-31 0°29'29 6.20992 AU
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44 -2690 Jul 03 j 12:23 -2690 Oct 25 j 09:58 -2690 Nov 05 j 10:49 -2690 Nov 17 j 00:26 -2690 Nov 18 j 02:20 -2690 Nov 18 j 02:21 -2690 Nov 30 j 18:29 -2690 Dec 30 j 03:54	5° \$\Delta 51'15 23° \$\Delta 54'47 19° \$\Delta 01'39 18° \$\Delta 53'27 14° \$\Delta 05'21 0° \$\mathred{m}\$. 2° \$\mathred{m} 31'30 5° \$\mathred{m} 12'39 5° \$\mathred{m} 27'43 5° \$\mathred{m} 24'34 15° \$\mathred{m}\$.	1°01'08 1°05'53 4.22737 AU 6.16732 AU 0°24'21	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24 -2684 May 15 j 13:37 -2684 May 15 j 13:40 -2684 May 16 j 22:00 -2684 May 29 j 07:30 -2684 Jul 18 j 18:44 -2684 Oct 01 j 01:31 -2684 Nov 29 j 13:59 -2684 Nov 29 j 00:55 -2684 Dec 21 j 05:39	14°Y42'50 9°Y33'30 28°Y18'39 0°8 1°824'40 1°824'42 1°842'55 4°830'09 15°8 22°845'30 17°844'37 17°849'01 15°88	4.14937 AU 0°-29'-31 0°29'29 6.20992 AU 0°-11'-29
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44 -2690 Jul 03 j 12:23 -2690 Oct 25 j 09:58 -2690 Nov 05 j 10:49 -2690 Nov 17 j 00:26 -2690 Nov 18 j 02:20 -2690 Nov 30 j 18:29 -2690 Dec 30 j 03:54 -2689 Apr 07 j 13:34	5° \$\Pi\$51'15 23° \$\Pi\$54'47 19° \$\Pi\$01'39 18° \$\Pi\$53'27 14° \$\Pi\$05'21 0° \$\mathrm{M}\$. 2° \$\mathrm{M}\$31'30 5° \$\mathrm{M}\$12'39 5° \$\mathrm{M}\$27'44 8° \$\mathrm{M}\$24'34 15° \$\mathrm{M}\$. 27° \$\mathrm{M}\$26'37	1°01'08 1°05'53 4.22737 AU 6.16732 AU 0°24'21 0°24'18	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24 -2684 May 15 j 13:37 -2684 May 15 j 13:40 -2684 May 16 j 22:00 -2684 May 29 j 07:30 -2684 Jul 18 j 18:44 -2684 Oct 01 j 01:31 -2684 Nov 29 j 13:59 -2684 Nov 29 j 00:55 -2684 Dec 21 j 05:39 -2683 Jan 28 j 20:12	14°Y42'50 9°Y33'30 28°Y18'39 0°8 1°824'40 1°824'42 1°842'55 4°830'09 15°8 22°845'30 17°844'37 17°849'01 15°R8 12°841'51	4.14937 AU 0°-29'-31 0°29'29 6.20992 AU 0°-11'-29
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44 -2690 Jul 03 j 12:23 -2690 Oct 25 j 09:58 -2690 Nov 05 j 10:49 -2690 Nov 17 j 00:26 -2690 Nov 18 j 02:20 -2690 Nov 30 j 18:29 -2690 Dec 30 j 03:54 -2689 Apr 07 j 13:34 -2689 Jun 07 j 12:21	5° \$\Pi\$51'15 23° \$\Pi\$54'47 19° \$\Pi\$01'39 18° \$\Pi\$53'27 14° \$\Pi\$05'21 0° \$\mathred{m}\$. 2° \$\mathred{m}\$31'30 5° \$\mathred{m}\$12'39 5° \$\mathred{m}\$27'44 8° \$\mathred{m}\$24'34 15° \$\mathred{m}\$. 27° \$\mathred{m}\$26'37 22° \$\mathred{m}\$30'34	1°01'08 1°05'53 4.22737 AU 6.16732 AU 0°24'21 0°24'18	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24 -2684 May 15 j 13:37 -2684 May 15 j 13:40 -2684 May 16 j 22:00 -2684 May 29 j 07:30 -2684 Jul 18 j 18:44 -2684 Oct 01 j 01:31 -2684 Nov 29 j 13:59 -2684 Nov 29 j 00:55 -2684 Dec 21 j 05:39 -2683 Jan 28 j 20:12 -2683 Feb 07 j 19:57	14°Y42'50 9°Y33'30 28°Y18'39 0°8 1°824'40 1°824'42 1°842'55 4°830'09 15°8 22°845'30 17°844'37 17°849'01 15°88 12°841'51 12°851'20	4.14937 AU 0°-29'-31 0°29'29 6.20992 AU 0°-11'-29
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44 -2690 Jul 03 j 12:23 -2690 Oct 25 j 09:58 -2690 Nov 05 j 10:49 -2690 Nov 17 j 00:26 -2690 Nov 18 j 02:20 -2690 Nov 18 j 02:21 -2690 Nov 30 j 18:29 -2690 Dec 30 j 03:54 -2689 Apr 07 j 13:34 -2689 Jun 07 j 12:21 -2689 Jun 07 j 23:18	5° \$\Pi\$51'15 23° \$\Pi\$54'47 19° \$\Pi\$01'39 18° \$\Pi\$53'27 14° \$\Pi\$05'21 0° \$\mathred{m}\$. 2° \$\mathred{m}\$31'30 5° \$\mathred{m}\$12'39 5° \$\mathred{m}\$27'44 8° \$\mathred{m}\$24'34 15° \$\mathred{m}\$. 27° \$\mathred{m}\$26'37 22° \$\mathred{m}\$30'34 22° \$\mathred{m}\$27'02	1°01'08 1°05'53 4.22737 AU 6.16732 AU 0°24'21 0°24'18	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24 -2684 May 15 j 13:37 -2684 May 15 j 13:40 -2684 May 16 j 22:00 -2684 May 29 j 07:30 -2684 Jul 18 j 18:44 -2684 Oct 01 j 01:31 -2684 Nov 29 j 13:59 -2684 Nov 29 j 00:55 -2684 Dec 21 j 05:39 -2683 Jan 28 j 20:12 -2683 Feb 07 j 19:57 -2683 Mar 08 j 23:50	14°Y42'50 9°Y33'30 28°Y18'39 0°8 1°824'40 1°824'42 1°842'55 4°830'09 15°8 22°845'30 17°844'37 17°849'01 15°R8 12°841'51 12°851'20 15°8	4.14937 AU 0°-29'-31 0°29'29 6.20992 AU 0°-11'-29
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. desc. node	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44 -2690 Jul 03 j 12:23 -2690 Oct 25 j 09:58 -2690 Nov 05 j 10:49 -2690 Nov 17 j 00:26 -2690 Nov 18 j 02:20 -2690 Nov 30 j 18:29 -2690 Dec 30 j 03:54 -2689 Apr 07 j 13:34 -2689 Jun 07 j 12:21 -2689 Jun 07 j 23:18 -2689 Jun 17 j 10:55	5° \$\Pi\$51'15 23° \$\Pi\$54'47 19° \$\Pi\$01'39 18° \$\Pi\$53'27 14° \$\Pi\$05'21 0° \$\mathred{m}\$. 2° \$\mathred{m}\$.31'30 5° \$\mathred{m}\$.12'39 5° \$\mathred{m}\$.27'44 8° \$\mathred{m}\$.24'34 15° \$\mathred{m}\$. 27° \$\mathred{m}\$.26'37 22° \$\mathred{m}\$.30'34 22° \$\mathred{m}\$.27'02 21° \$\mathred{m}\$.14'19	1°01'08 1°05'53 4.22737 AU 6.16732 AU 0°24'21 0°24'18	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct asc. node	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24 -2684 May 15 j 13:37 -2684 May 15 j 13:40 -2684 May 16 j 22:00 -2684 May 29 j 07:30 -2684 Jul 18 j 18:44 -2684 Oct 01 j 01:31 -2684 Nov 29 j 10:55 -2684 Nov 29 j 00:55 -2684 Dec 21 j 05:39 -2683 Jan 28 j 20:12 -2683 Feb 07 j 19:57 -2683 Mar 08 j 23:50 -2683 May 31 j 21:29	14°Y42'50 9°Y33'30 28°Y18'39 0°8 1°824'40 1°824'42 1°842'55 4°830'09 15°8 22°845'30 17°844'37 17°849'01 15°88 12°841'51 12°851'20 15°8 0°II	4.14937 AU 0°-29'-31 0°29'29 6.20992 AU 0°-11'-29
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-2691 Oct 29 j 15:04 -2690 Mar 03 j 00:17 -2690 May 03 j 02:04 -2690 May 04 j 03:44 -2690 Jul 03 j 12:23 -2690 Oct 25 j 09:58 -2690 Nov 05 j 10:49 -2690 Nov 17 j 00:26 -2690 Nov 18 j 02:20 -2690 Nov 18 j 02:21 -2690 Nov 30 j 18:29 -2690 Dec 30 j 03:54 -2689 Apr 07 j 13:34 -2689 Jun 07 j 12:21 -2689 Jun 07 j 23:18	5° \$\Pi\$51'15 23° \$\Pi\$54'47 19° \$\Pi\$01'39 18° \$\Pi\$53'27 14° \$\Pi\$05'21 0° \$\mathred{m}\$. 2° \$\mathred{m}\$.31'30 5° \$\mathred{m}\$.12'39 5° \$\mathred{m}\$.27'43 5° \$\mathred{m}\$.27'44 8° \$\mathred{m}\$.24'34 15° \$\mathred{m}\$. 27° \$\mathred{m}\$.26'37 22° \$\mathred{m}\$.30'34 22° \$\mathred{m}\$.27'02 21° \$\mathred{m}\$.14'19 17° \$\mathred{m}\$.36'40	1°01'08 1°05'53 4.22737 AU 6.16732 AU 0°24'21 0°24'18	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-2685 Oct 27 j 19:35 -2685 Dec 26 j 21:31 -2684 May 01 j 19:02 -2684 May 09 j 07:24 -2684 May 15 j 13:37 -2684 May 15 j 13:40 -2684 May 16 j 22:00 -2684 May 29 j 07:30 -2684 Jul 18 j 18:44 -2684 Oct 01 j 01:31 -2684 Nov 29 j 13:59 -2684 Nov 29 j 00:55 -2684 Dec 21 j 05:39 -2683 Jan 28 j 20:12 -2683 Feb 07 j 19:57 -2683 Mar 08 j 23:50	14°Y42'50 9°Y33'30 28°Y18'39 0°8 1°824'40 1°824'42 1°842'55 4°830'09 15°8 22°845'30 17°844'37 17°849'01 15°R8 12°841'51 12°851'20 15°8	4.14937 AU 0°-29'-31 0°29'29 6.20992 AU 0°-11'-29

-2689 Nov 10 j 12:16 0°**₰**

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2683 in astronomical counting style is the year 2684 BCE in historical counting style. opposition -2683 Jun 18 j 22:18 3°**I**57'48 0°14'27 -2677 Jun 12 j 14:44 27° ML 28'54 0°-8'-8 conjunction -2683 Jun 18 j 22:17 3°**I**157'47 0°14'30 min. Earth dist. -2677 Jun 12 j 22:01 27° M 26'32 4.08934 AU minimum elong -2683 Jun 18 j 18:55 3°**I**I55'56 -2677 Aug 11 j 11:12 22°M35'12 behind sun begin direct -2683 Jun 19 j 01:39 3°**Ⅱ**59'38 -2677 Oct 21 j 17:39 behind sun end 0°**∡**¹ 4°**Д**00'57 6.32181 AU -2683 Jun 19 j 04:03 -2677 Dec 13 j 21:29 11°**尽** 34'54 max. Earth dist. evening set -2683 Jul 02 j 09:55 morning rise 6°**Ⅲ**55'53 24°**Ⅱ**21′03 0°-28'-23 retrograde -2683 Nov 01 j 06:53 conjunction -2677 Dec 26 j 19:16 14° ₹ 39'11 -2683 Dec 31 j 01:27 19°**Д**24'06 -2677 Dec 26 j 19:14 14° ₹39'10 opposition 0°50'32 minimum elong 0°28'28 -2677 Dec 26 j 22:32 14°**尽**41'08 min. Earth dist. -2683 Dec 31 j 05:46 19°**Ⅲ**22'40 4.36448 AU max. Earth dist. 6.04315 AU direct -2682 Mar 02 j 15:01 14°**Ⅲ**20'31 morning rise -2676 Jan 08 j 19:26 17°**∡**¹44'58 -2682 Jun 27 j 15:37 0ಂತಾ -2676 Mar 05 j 03:25 0°ಕ -2682 Jul 08 j 05:19 -2676 May 19 j 01:49 7°**る**49'42 evening set 2°516'18 retrograde -2676 Jul 18 j 12:26 opposition 2°る49'10 -1°-14'-34 conjunction -2682 Jul 21 j 10:50 5°509'14 0°52'46 min. Earth dist. -2676 Jul 18 j 00:50 2°る53'00 4.01056 AU minimum elong -2682 Jul 21 j 10:47 5°**©**09'13 0°52'50 -2676 Aug 10 j 06:11 30°₹**҂**7 max. Earth dist. -2682 Jul 20 j 16:46 4°959'22 6.39436 AU direct -2676 Sep 15 j 03:22 27°**х** 55′59 morning rise -2682 Aug 03 j 13:00 8°900'31 -2676 Oct 20 j 14:01 0°궁 retrograde -2682 Dec 01 j 20:28 24°559'12 evening set -2675 Jan 17 j 16:00 17°る16'29 opposition -2681 Jan 31 j 01:22 20°505'34 1°36'25 min. Earth dist. -2681 Jan 31 j 20:14 19°559'27 4.41015 AU conjunction -2675 Jan 30 j 20:50 20°₹26'00 -1°-5'-42 direct -2681 Apr 03 j 10:59 15°9502'35 minimum elong -2675 Jan 30 j 20:47 20°る25'59 1°05'47 -2681 Jul 26 i 15:22 $0^{\circ}\Omega$ max. Earth dist. -2675 Feb 01 i 02:46 20°₹43'57 5.99468 AU evening set -2681 Aug 08 j 19:21 2°**Ω**49'38 morning rise -2675 Feb 13 i 05:03 23°る37'19 max. Earth dist. -2681 Aug 20 j 03:03 5°**Ω**18′03 6.40858 AU -2675 Mar 12 i 19:16 0°≈ retrograde -2675 Jun 25 j 12:04 14°≈03'18 -2681 Aug 21 j 16:01 5°Ω38'19 1°15'41 -2675 Aug 23 j 08:29 9°≈08'36 3.99946 AU conjunction min. Earth dist. -2681 Aug 21 j 15:59 -2675 Aug 24 j 11:52 -1°-53'-45 5°Ω38'18 1°15'44 opposition 8°≈59'22 minimum elong -2681 Sep 03 j 09:42 -2675 Oct 21 j 10:28 4°≈04'31 morning rise 8°**Ω**25'35 direct -2681 Oct 04 j 16:24 15°**Ω** -2674 Jan 17 j 03:58 15°≈ -2680 Jan 01 j 20:11 25° Ω 24'35 -2674 Feb 23 j 16:42 23°≈28'37 retrograde evening set -2680 Mar 02 j 10:03 $20^{\circ}\Omega$ 32'50 $1^{\circ}55'34$ opposition -2680 Mar 03 j 16:23 20°**Ω**23'09 -2674 Mar 09 j 04:57 26°≈40'11 -1°-18'-11 min. Earth dist. 4.39337 AU conjunction -2680 May 04 j 03:25 15°**Ω**31'34 -2674 Mar 09 j 04:58 26°≈40'12 1°18'15 direct minimum elong -2680 Aug 23 j 05:00 -2674 Mar 11 j 03:50 27°≈07'56 6.02056 AU 0° m max. Earth dist. -2680 Sep 07 j 17:54 3°m/22'39 -2674 Mar 22 j 20:08 29°≈53'08 evening set morning rise -2680 Sep 18 j 11:41 5° m 45'39 -2674 Mar 23 j 07:51 0°**光** max. Earth dist. 6.36107 AU -2674 Jul 31 j 19:22 19° **★** 56'31 retrograde -2674 Sep 28 j 02:42 15°**米**01'48 4.06014 AU conjunction -2680 Sep 20 j 08:45 6° m 10'44 1°17'34 min. Earth dist. -2680 Sep 20 j 08:46 6° Mp 10'44 1°17'35 opposition -2674 Sep 29 j 09:35 14° **€** 51'14 -1°-48'-56 minimum elong morning rise -2680 Oct 02 j 21:33 8° m 57'55 direct -2674 Nov 26 j 15:02 9°**₩**53'17 retrograde -2679 Feb 01 j 21:58 26° Mp 23'07 -2673 Apr 01 j 18:05 29°**₭**01'05 evening set -2679 Apr 03 j 20:39 21° m 31'22 1°42'37 -2673 Apr 06 j 00:34 $0^{\circ}\Upsilon$ opposition min. Earth dist. -2679 Apr 05 j 04:22 21° m 21'16 4.31831 AU -2679 Jun 05 j 02:52 16° M 32'38 -2673 Apr 15 j 11:53 2°**Y**11'04 -1°-1'-15 direct conjunction -2679 Sep 17 j 18:48 -2673 Apr 15 j 11:56 2°Υ11'06 1°01'16 minimum elong -2679 Oct 08 i 20:52 2°**Υ**38'11 evening set 4°**£**39'40 max. Earth dist. -2673 Apr 17 i 10:53 6.11023 AU max. Earth dist. -2679 Oct 19 i 18:49 7°**♀**08'27 6.26447 AU morning rise -2673 Apr 29 i 06:49 5°**Y**21′26 $-2673 \text{ Sep } 04 \text{ i } 02:42 \quad 24^{\circ} \Upsilon 29'39$ retrograde -2673 Nov 02 j 13:20 19°**Υ**25'51 -1°-5'-12 conjunction -2679 Oct 21 i 10:20 7°**♀**30'58 0°57'05 opposition -2679 Oct 21 i 10:22 7°**£**31'00 0°57'04 min. Earth dist. -2673 Nov 01 i 12:46 19° γ34'13 4.16855 AU minimum elong -2673 Dec 31 j 16:51 14°**Υ**24'52 -2679 Nov 02 j 23:01 10°**£**22'10 direct morning rise -2678 Mar 07 j 20:21 28° **△**34'59 -2672 Apr 22 j 18:24 retrograde 0°8 -2678 May 07 j 21:22 23°**2**41'36 0°58'07 -2672 May 06 j 17:23 opposition evening set 3°**8**04'55 min. Earth dist. -2678 May 08 j 22:08 23°**೨**33'41 4.20552 AU direct -2678 Jul 08 j 03:42 18°**£**45'42 conjunction -2672 May 20 j 11:26 6°809'57 0°-23'-31 -2678 Oct 08 j 07:06 0° M minimum elong -2672 May 20 j 11:28 6°**8**09'58 0°23'29 -2678 Nov 10 j 00:41 7°ML17'37 max. Earth dist. -2672 May 21 j 14:48 6°**8**25'18 6.22888 AU evening set -2672 Jun 03 j 04:50 9°**8**14'21 morning rise -2678 Nov 22 j 16:43 10°M 15'01 0°18'09 -2672 Jun 29 j 18:43 15°**8** conjunction -2672 Oct 05 j 11:11 27°**8**20'56 minimum elong -2678 Nov 22 j 16:45 10°M 15'02 0°18'06 retrograde max. Earth dist. -2678 Nov 21 j 16:27 10°ML00'50 6.14574 AU opposition -2672 Dec 04 j 00:32 22°**8**20'34 0°-2'-25 morning rise -2678 Dec 05 j 09:58 13°ML13'13 min. Earth dist. -2672 Dec 03 j 14:30 22°**8**23'56 4.28563 AU -2678 Dec 13 j 02:40 15°M asc. node -2672 Dec 18 j 21:52 20°824'00 -2677 Mar 03 j 14:46 0°**∡**¹ direct -2671 Feb 02 j 12:19 17°**8**17'33 retrograde -2677 Apr 12 j 16:54 2°×25'29 -2671 May 15 j 04:22 $0^{\circ}\Pi$ desc. node -2677 Apr 27 j 10:56 2°**х** 05′00 -2671 Jun 10 j 00:22 5°**Ⅲ**30′10 evening set

-2677 May 23 j 04:19 30°RM

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2671 in astronomical counting style is the year 2672 BCE in historical counting style. -2671 Jun 23 j 13:19 8°II28'33 0°20'23 -2665 Feb 03 i 19:10 0°**∡**¹ conjunction -2671 Jun 23 j 13:17 8°**Ⅲ**28'32 0°20'27 -2665 Mar 07 j 07:49 minimum elong desc. node 4°**∡**°49'50 -2671 Jun 23 j 16:27 8°**耳**30′16 6.33598 AU -2665 Apr 17 j 22:28 7°**∡**¹25'49 max. Earth dist. retrograde -2665 Jun 17 j 17:56 -2671 Jul 06 j 23:32 11°**Ⅲ**25'30 opposition 2°**х** 28'46 0°-18'-3 morning rise -2671 Nov 05 j 12:09 28°**Ⅲ**45'09 -2665 Jun 17 j 23:05 2°**х** 27'05 4.07645 AU retrograde min. Earth dist. -2665 Jul 07 j 18:20 30°RM -2670 Jan 04 j 08:47 23°**II**48'44 0°58'10 opposition -2670 Jan 04 j 14:46 23°**Ⅱ**46'46 direct min. Earth dist. 4.37488 AU -2665 Aug 16 j 10:35 27°M35'19 -2670 Mar 07 j 01:02 18°**Ⅲ**45'11 direct -2665 Sep 24 j 09:08 0°**∡** -2665 Dec 18 j 19:19 -2670 Jun 10 j 19:50 0.ಎ evening set 16°**х** 38′02 evening set -2670 Jul 12 j 16:04 6°938'55 conjunction -2665 Dec 31 j 17:53 19° ₹ 43'04 0°-34'-34 -2670 Jul 25 j 20:10 9°531'04 0°57'02 -2665 Dec 31 j 17:50 19° ₹ 43'03 conjunction minimum elong 0°34'39 -2670 Jul 25 j 20:07 -2664 Jan 01 j 00:36 19° ₹ 47'04 minimum elong 9°**©**31'02 0°57'06 max. Earth dist. 6.03447 AU max. Earth dist. -2670 Jul 24 j 21:27 9°9518'40 6.40008 AU morning rise -2664 Jan 13 j 19:14 22° ₹ 49'42 morning rise -2670 Aug 07 j 21:12 12°521'38 -2664 Feb 14 j 02:16 0°궁 retrograde -2670 Dec 06 j 03:51 29°518'52 retrograde -2664 May 24 j 06:08 12°**る**58'43 opposition -2669 Feb 04 j 09:00 24°\$25'37 1°40'50 opposition -2664 Jul 23 j 16:40 7°る57'38 -1°-22'-11 min. Earth dist. -2669 Feb 05 j 06:55 24°518'32 4.41107 AU min. Earth dist. -2664 Jul 23 j 01:26 8°**る**02'42 4.00736 AU direct -2669 Apr 07 j 21:44 19°522'47 direct -2664 Sep 20 j 03:30 3°る04'24 -2669 Jul 09 j 18:12 $0^{\circ}\Omega$ evening set -2663 Jan 22 j 18:17 22°る25'27 evening set -2669 Aug 13 j 02:58 7°**Ω**09'56 max. Earth dist. -2669 Aug 24 j 08:09 9°**Ω**37'11 6.40445 AU conjunction -2663 Feb 05 j 00:06 25°る35'17 -1°-9'-8 minimum elong -2663 Feb 05 j 00:03 25°る35'16 1°09'13 conjunction -2669 Aug 25 j 22:46 9°**Ω**58′23 1°17'15 max. Earth dist. -2663 Feb 06 i 09:21 25°る55'11 5.99694 AU -2669 Aug 25 j 22:45 9°**Ω**58'23 1°17'19 morning rise -2663 Feb 18 j 09:14 28°る46'53 minimum elong -2669 Sep 07 j 15:28 $12^{\circ}\Omega 45'26$ -2663 Feb 23 j 12:58 morning rise 0°≈≈ -2669 Sep 18 j 00:02 15°Ω-2663 May 08 j 20:08 15°≈ -2668 Jan 06 j 04:14 29° Ω 47'02 -2663 Jun 30 j 14:57 19°≈11'05 retrograde retrograde -2668 Mar 06 j 20:26 24° **Ω**55'24 1°55'44 -2663 Aug 22 j 23:12 15°R≈ opposition -2668 Mar 08 j 02:49 24°**Ω**45'42 -2663 Aug 28 j 09:11 14°≈16'15 4.00696 AU min. Earth dist. 4.38472 AU min. Earth dist. -2663 Aug 29 j 13:06 14°≈06'47 -2668 May 08 j 12:05 19°**Ω**54'27 -1°-55'-44 direct opposition -2663 Oct 26 j 12:56 -2668 Aug 06 j 01:34 0° M direct 9°**≈**11'33 evening set -2668 Sep 12 j 01:36 7° **m**) 47'45 -2663 Dec 26 j 19:17 15°≈ -2668 Sep 22 j 19:18 10° Mp 11'10 -2662 Feb 28 j 19:34 28°≈33'15 max. Earth dist. 6.34858 AU evening set -2662 Mar 06 j 23:09 0°**∀** -2668 Sep 24 j 15:59 10° m 36'07 1°16'00 conjunction -2668 Sep 24 j 16:00 10° Mp 36'08 -2662 Mar 14 j 08:46 1°**)** 44'41 -1°-17'-29 minimum elong 1°16'01 conjunction morning rise -2668 Oct 07 j 04:28 13° Mp 23'43 minimum elong -2662 Mar 14 j 08:47 1°**¥**44'41 1°17'32 -2667 Jan 13 j 04:03 0∘**⊽** max. Earth dist. -2662 Mar 16 j 09:43 2°**升**13'32 6.03245 AU retrograde -2667 Feb 06 j 13:56 0°**£**54'57 morning rise -2662 Mar 28 j 00:34 4°**)** 57'21 -2667 Mar 03 j 00:33 30°R M retrograde -2662 Aug 05 j 15:11 24°**米**53'35 -2667 Apr 08 j 12:24 26° m 03'09 1°38'10 min. Earth dist. -2662 Oct 02 j 22:03 19°¥58'50 4.07513 AU opposition min. Earth dist. -2667 Apr 09 j 20:32 25° m 52'57 4.30273 AU -2662 Oct 04 j 04:35 19° ¥48'24 -1°-44'-49 opposition -2667 Jun 09 j 17:00 21° M 04'53 -2662 Dec 01 j 11:39 14° ¥ 50'03 direct direct -2667 Aug 30 j 19:19 -2661 Mar 20 j 11:27 $0^{\circ}\Upsilon$ 3°**Y**'53'47 evening set -2667 Oct 13 i 07:15 9°**£**15'34 evening set -2661 Apr 06 i 18:05 max. Earth dist. -2667 Oct 24 i 05:56 11°**2**45'25 6.24723 AU 7°**Υ**'03'08 0°-56'-59 conjunction -2661 Apr 20 j 12:03 conjunction -2667 Oct 25 j 20:50 12° \(\Omega\) 07'40 0°52'32 minimum elong -2661 Apr 20 j 12:07 7°**Υ**03'10 0°57'00 -2667 Oct 25 i 20:53 12°**2**07'42 0°52'32 max. Earth dist. -2661 Apr 22 j 07:20 7°**Y**28′01 6.12688 AU minimum elong -2667 Nov 07 j 10:05 14°**£**59'48 -2661 May 04 j 07:14 10° Υ 12'50 morning rise morning rise -2666 Jan 24 j 02:28 retrograde $-2661 \text{ Sep } 08 \text{ j } 14:25 \quad 29^{\circ} \Upsilon 12'14$ 0°M -2666 Mar 12 j 17:43 -2661 Nov 06 j 03:26 24° Υ 16'27 4.18511 AU retrograde 3°M20'59 min. Earth dist. -2661 Nov 07 j 01:52 24° Υ 08'49 0°-57'-13 -2666 Apr 30 j 12:14 30°R Ω opposition -2660 Jan 05 j 09:57 19°**Υ**07'27 opposition -2666 May 12 j 19:25 28°**2**27'15 0°49'45 direct min. Earth dist. -2666 May 13 j 17:06 28°**♀**20'19 4.18799 AU -2660 Apr 05 j 08:38 0°B direct -2666 Jul 12 j 20:26 23°**♀**31'47 -2660 May 11 j 12:04 7°**8**43'38 evening set -2666 Sep 18 j 03:34 0°M -2666 Nov 14 j 16:12 12° ML07'49 -2660 May 25 j 05:55 10°**8**47'53 0°-17'-33 evening set conjunction -2666 Nov 26 j 22:24 15°M -2660 May 25 j 05:56 10°**8**47'54 minimum elong 0°17'32 -2660 May 26 j 06:46 11°**8**01'48 max. Earth dist. 6.24430 AU conjunction -2666 Nov 27 j 09:00 15°ML06'12 0°11'45 morning rise -2660 Jun 07 j 22:28 13°**8**51'20 minimum elong -2666 Nov 27 j 09:00 15°ML06'12 0°11'41 -2660 Jun 13 j 02:39 15°**8** behind sun begin -2666 Nov 27 j 03:15 15°ML02'51 -2660 Sep 05 j 13:22 $0^{\circ}\Pi$ behind sun end -2666 Nov 27 j 14:45 15°ML09'34 retrograde -2660 Oct 09 j 19:00 1°**Ⅲ**50'48 -2666 Nov 26 j 13:39 14°M54'51 6.12978 AU asc. node -2660 Oct 30 j 03:14 1°**I**09'59 max. Earth dist. -2666 Dec 10 j 02:56 18°ML05'27 -2660 Nov 12 j 19:53 30°R8 morning rise

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2660 in astronomical counting style is the year 2661 BCE in historical counting style. -2660 Dec 08 j 08:47 26° \$\frac{8}{5}1'03 0°06'24 -2654 Jun 14 i 00:58 30°R <u>Ω</u> opposition -2660 Dec 08 j 00:58 26°853'40 -2654 Jul 17 j 15:21 28°**£**17'19 min. Earth dist. 4 29861 AU direct -2659 Feb 07 j 00:22 21°847'56 -2654 Aug 19 j 20:02 direct o°m. -2654 Nov 10 j 22:46 -2659 Apr 26 j 17:10 Π $^{\circ}0$ 15°M₊ -2654 Nov 19 j 07:20 16°M56'17 -2659 Jun 14 j 13:59 evening set 9°**Ⅱ**57'58 evening set max. Earth dist. -2654 Dec 01 j 07:56 19°ML45'38 6.11653 AU conjunction -2659 Jun 28 j 01:45 12°**Ⅲ**55'31 0°26'04 -2659 Jun 28 j 01:43 12°**I**55'30 -2654 Dec 02 j 00:43 19°M 55'30 minimum elong 0°26'08 conjunction 0°05'18 max. Earth dist. -2659 Jun 27 j 23:38 12°**Ⅱ**54'21 6.34551 AU minimum elong -2654 Dec 02 j 00:43 19°M 55'30 0°05'15 morning rise -2659 Jul 11 j 11:00 15° **I** 51'39 behind sun begin -2654 Dec 01 j 16:57 19° ML 50'57 -2659 Sep 25 j 08:23 0ಂತಾ behind sun end -2654 Dec 02 j 08:30 20°M 00'04 -2659 Nov 09 j 18:25 -2654 Dec 14 j 19:37 22°M 55'44 retrograde 3°907'37 morning rise -2653 Jan 15 j 14:49 -2659 Dec 25 j 13:21 30°RⅡ desc. node 0°**∡**06′18 opposition -2658 Jan 08 j 15:36 28°**Ⅲ**11'42 1°05'21 -2653 Jan 15 j 03:02 0°**∡**7 min. Earth dist. -2658 Jan 09 j 00:32 28°**Ⅲ**08'46 4.38062 AU retrograde -2653 Apr 22 j 23:43 12°**х** 22′57 direct -2658 Mar 11 j 11:53 23°**耳**08'10 opposition -2653 Jun 22 j 19:28 7°**∡**¹25'19 0°-27'-47 -2658 May 22 j 13:42 0 \circ \odot min. Earth dist. -2653 Jun 22 j 21:01 7°**х¹**24'48 4.06568 AU evening set -2658 Jul 17 j 01:51 11°501'10 direct -2653 Aug 21 j 06:45 2°**х** 32′01 max. Earth dist. -2658 Jul 29 j 04:54 13°539'40 6.40164 AU evening set -2653 Dec 23 j 15:55 21° ₹37'11 conjunction -2658 Jul 30 j 04:55 13°552'48 1°00'55 conjunction -2652 Jan 05 j 15:21 24° ₹ 42'56 0°-40'-26 minimum elong -2658 Jul 30 j 04:52 13°552'46 1°00'59 minimum elong -2652 Jan 05 i 15:19 24° ₹ 42'54 0°40'31 morning rise -2658 Aug 12 i 04:34 16°5642'46 max. Earth dist. -2652 Jan 06 i 01:54 24° ₹ 49'14 6.02701 AU -2658 Oct 21 j 17:12 $0^{\circ}\Omega$ morning rise -2652 Jan 18 j 17:40 27° ₹ 50'19 -2658 Dec 10 j 09:20 3°**Ω**39'54 -2652 Jan 27 j 21:51 0°ಕ retrograde -2657 Jan 30 j 03:54 30° R 55 -2652 May 29 j 10:25 18°る03'14 retrograde opposition -2657 Feb 08 j 16:52 28°5046'58 1°44'40 -2652 Jul 28 j 19:10 13°중01'37 -1°-29'-7 opposition -2657 Feb 09 j 15:30 28°539'40 4.40871 AU -2652 Jul 28 j 02:25 13°중07'11 4.00402 AU min. Earth dist. min. Earth dist. -2657 Apr 12 j 06:02 23°544'22 -2652 Sep 25 j 04:36 direct direct 8°**ろ**08'10 -2657 Jun 20 j 00:21 0°**Ω** -2651 Jan 27 j 19:25 27°₹30'06 evening set -2651 Feb 07 j 06:48 evening set -2657 Aug 17 j 11:02 11°Ω32'24 0°≈ -2657 Aug 28 j 13:09 13°**Ω**58'20 max. Earth dist. 6.39827 AU -2651 Feb 10 j 02:19 0°≈40'21 -1°-12'-2 conjunction -2657 Aug 30 j 05:44 $14^{\circ}\Omega$ 20'40 $1^{\circ}18'23$ -2651 Feb 10 j 02:16 conjunction minimum elong 0°≈40'19 1°12'07 -2657 Aug 30 j 05:43 14°**Ω**20'39 -2651 Feb 11 j 15:03 minimum elong 1°18'26 max. Earth dist. 1°≈02'18 5.99793 AU -2657 Sep 02 j 05:12 15°**Ω** -2651 Feb 23 j 12:24 morning rise 3°≈52'17 -2657 Sep 11 j 21:45 $17^{\circ}\Omega$ 07'39 morning rise -2651 Apr 14 j 19:12 15°≈ -2657 Nov 17 j 21:53 0° M retrograde -2651 Jul 05 j 16:33 24°≈14'59 retrograde -2656 Jan 10 j 15:49 4° m 12'23 min. Earth dist. -2651 Sep 02 j 07:54 19°≈20'13 4.01244 AU -2656 Mar 06 j 04:50 30°R**Ω** -2651 Sep 03 j 12:41 19°≈10'28 -1°-56'-53 opposition opposition -2656 Mar 11 j 08:10 29° **Ω**20'49 1°55'12 -2651 Oct 10 j 13:06 15°R≈ min. Earth dist. -2656 Mar 12 j 15:53 29° Ω10'43 4.37520 AU -2651 Oct 31 j 11:48 14°≈14'51 direct direct -2656 May 13 j 00:24 24°**\O**20'12 -2651 Nov 21 j 12:08 15°≈ -2656 Jul 16 j 15:07 0° Mp -2650 Feb 18 j 09:49 0°\ -2656 Sep 16 j 09:35 12° Mp 15'26 -2650 Mar 05 j 22:17 evening set evening set 3°**)** ₹35′16 -2656 Sep 27 i 03:38 14° m 39'28 max. Earth dist. 6.33646 AU -2650 Mar 19 j 12:13 6° ★ 46'38 -1°-16'-14 conjunction conjunction -2656 Sep 28 j 23:42 15° m 04'09 1°13'58 minimum elong -2650 Mar 19 i 12:14 6°\ 46'39 1°16'17 -2656 Sep 28 j 23:44 15° m 04'10 minimum elong 1°13'59 max. Earth dist. -2650 Mar 21 i 11:49 7°**)** 14'37 6.04164 AU -2656 Oct 11 i 11:59 17° m 52'09 -2650 Apr 02 j 04:53 9° **\(\)** 59'12 morning rise morning rise -2656 Dec 11 j 02:01 -2650 Aug 10 j 09:37 29°**)** 49'19 0∘ଫ retrograde -2655 Feb 11 j 04:29 5°**£**29'08 -2650 Oct 08 j 23:04 24° \(\frac{1}{44}\)'12 -1°-40'-1 retrograde opposition -2655 Apr 13 j 05:02 0°**2**37'06 1°33'02 min. Earth dist. -2650 Oct 07 j 17:05 24°\\$54'27 4.08695 AU opposition min. Earth dist. -2655 Apr 14 j 11:03 0°**2**27'34 4.28878 AU direct -2650 Dec 06 j 08:26 19° **\(\)**45'22 -2655 Apr 18 j 02:01 30°R M -2649 Mar 02 j 11:02 $0^{\circ}\Upsilon$ direct -2655 Jun 14 j 05:41 25° m 39'12 evening set -2649 Apr 11 j 18:23 8°Y46'20 -2655 Aug 08 j 11:05 0∘ಹ -2655 Oct 17 j 17:52 13° **△**52'33 -2649 Apr 25 j 12:53 11°**Y**55'18 0°-52'-19 evening set conjunction -2655 Oct 28 j 19:37 16°**2**24'39 -2649 Apr 25 j 12:56 11°**Υ**55'20 max. Earth dist. 6.23263 AU minimum elong 0°52'19 -2649 Apr 27 j 07:06 12°**Υ**19'29 max. Earth dist. 6.14050 AU -2655 Oct 30 j 07:38 16°**•**45'20 0°47'39 -2649 May 09 j 07:58 15°**Y**04'22 conjunction morning rise minimum elong -2649 Jul 24 j 07:05 -2655 Oct 30 j 07:40 16°**Ω**45'21 0°47'37 0°8 morning rise -2655 Nov 11 j 21:13 19°**2**38'14 retrograde -2649 Sep 13 j 05:09 3°**8**56'06 -2655 Dec 30 j 15:11 0°M -2649 Nov 03 j 08:44 30°₹**Y** retrograde -2654 Mar 17 j 16:50 8°ML06'38 opposition -2649 Nov 11 j 15:25 28°**Υ**'53'10 0°-48'-49 -2654 May 17 j 17:18 3°M12'29 -2649 Nov 10 j 19:06 29°**Y**00'03 4.19894 AU opposition 0°41'00 min. Earth dist.

min. Earth dist.

-2654 May 18 j 13:50

3°ML05'54 4.17343 AU

direct

-2648 Jan 10 j 03:36 23°**Y**51'31

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 23 Attention, astronomical year style is used: The year -2648 in astronomical counting style is the year 2649 BCE in historical counting style.

Attention, astronom	ical year style is used: Tl	he year -2648	in astronomical co	unting style is the year	2649 BCE in historical of	counting style.	
	-2648 Mar 15 j 18:28	0°8		min. Earth dist.	-2643 Apr 19 j 02:50	4° ≙ 59'47	4.27935 AU
evening set	-2648 May 16 j 08:11	12° 8 24'43		direct	-2643 Jun 18 j 20:05	0° £ 11'44	
	-2648 May 27 j 22:54	15° 8		evening set	-2643 Oct 22 j 02:50		
				max. Earth dist.	-2643 Nov 02 j 06:50	21° ჲ 00'03	6.22216 AU
conjunction	-2648 May 30 j 01:27						
minimum elong	-2648 May 30 j 01:27		0°11'22	conjunction	-2643 Nov 03 j 16:53		
behind sun begin	-2648 May 29 j 19:30			minimum elong	-2643 Nov 03 j 16:56		0°42'32
behind sun end	-2648 May 30 j 07:25			morning rise	-2643 Nov 16 j 06:54		
max. Earth dist.	-2648 May 30 j 22:06		6.25726 AU		-2643 Dec 12 j 05:34	0°M	
morning rise	-2648 Jun 12 j 17:25			retrograde	-2642 Mar 22 j 11:12		0022111
1-	-2648 Aug 08 j 10:12	0°Ⅱ 4°Ⅲ20/25		opposition	-2642 May 22 j 12:48	7° ጤ 52'58 7° ጤ 47'16	0°32'11
asc. node retrograde	-2648 Sep 09 j 04:32 -2648 Oct 14 j 03:54	4° Ⅱ 28'35 6° Ⅱ 24'05		min. Earth dist. direct	-2642 May 23 j 06:35 -2642 Jul 22 j 05:34	2°M58'08	4.16258 AU
opposition	-2648 Dec 12 j 18:43	1° I I24′52	0015120	direct	-2642 Oct 25 j 09:56		
min. Earth dist.	-2648 Dec 12 j 12:55	1° I I24′32 1° I I26′48	4.30981 AU	evening set	-2642 Nov 23 j 19:54		
iiiii. Lartii dist.	-2648 Dec 23 j 12:39		4.30701 AC	desc. node	-2642 Nov 27 j 06:13		
direct	-2647 Feb 11 j 14:17			dese. Hode	2042 1107 27 3 00.13	22 1102/1/	
uncet	-2647 Apr 02 j 21:15	0° I		conjunction	-2642 Dec 06 j 13:50	24°M,38'57	0°-1'-7
evening set	-2647 Jun 19 j 05:26			minimum elong	-2642 Dec 06 j 13:50		0°01'12
				behind sun begin	-2642 Dec 06 j 05:47		
conjunction	-2647 Jul 02 j 16:13	17° Ⅱ 26'27	0°31'43	behind sun end	-2642 Dec 06 j 21:53		
minimum elong	-2647 Jul 02 j 16:11			max. Earth dist.	-2642 Dec 05 j 23:53		6.10622 AU
max. Earth dist.	-2647 Jul 02 j 12:00			morning rise	-2642 Dec 19 j 09:33		
morning rise	-2647 Jul 16 j 00:04	20° Ⅲ 21'42			-2642 Dec 29 j 10:32	0° ∡ ¹	
-	-2647 Sep 01 j 07:59	0ಂತಾ		retrograde	-2641 Apr 27 j 23:09	17° ∡ 13'18	
retrograde	-2647 Nov 14 j 02:07	7°534'12		opposition	-2641 Jun 27 j 17:46	12° ∡ 15′07	0°-37'-4
opposition	-2646 Jan 13 j 00:22	2°538'52	1°12'20	min. Earth dist.	-2641 Jun 27 j 17:49	12° ∡ 15′06	4.05669 AU
min. Earth dist.	-2646 Jan 13 j 10:55	2° © 35'24	4.38671 AU	direct	-2641 Aug 26 j 02:16	7° ∡ ¹21'51	
	-2646 Feb 03 j 08:31	30°RⅡ		evening set	-2641 Dec 28 j 09:37	26° ∡ ¹29'17	
direct	-2646 Mar 15 j 23:29	27° Ⅱ 35'29					
	-2646 Apr 25 j 22:18	0 \circ \odot		conjunction	-2640 Jan 10 j 10:02		0°-45'-51
evening set	-2646 Jul 21 j 13:21	15° 5 27'30		minimum elong	-2640 Jan 10 j 09:59		
max. Earth dist.	-2646 Aug 02 j 11:40	18° © 03'31	6.40455 AU	max. Earth dist.	-2640 Jan 10 j 23:57		6.02019 AU
					-2640 Jan 12 j 02:37		
conjunction	-2646 Aug 03 j 15:03			morning rise	-2640 Jan 23 j 13:20		
minimum elong	-2646 Aug 03 j 15:00		1°04'39	retrograde	-2640 Jun 03 j 11:27		10.051.10
morning rise	-2646 Aug 16 j 13:38			opposition	-2640 Aug 02 j 17:49		
. 1	-2646 Sep 28 j 22:33			min. Earth dist.	-2640 Aug 01 j 23:30		
retrograde	-2646 Dec 14 j 18:27		1949100	direct	-2640 Sep 30 j 00:21		
opposition min. Earth dist.	-2645 Feb 13 j 02:50 -2645 Feb 14 j 02:59	3° Ω 11'55 3° Ω 04'09	1°48'00 4.40871 AU	evening set	-2639 Jan 22 j 06:36 -2639 Feb 01 j 17:56	0°≈ 2°≈28'05	
iiiii. Eartii tiist.	-2645 Mar 12 j 03:23	30°R©	4.406/1 AU	evening set	-2039 Feb 01 j 17.30	2 ~2003	
direct	-2645 Apr 16 j 17:53	30 k≅ 28°©09'35		conjunction	-2639 Feb 15 j 01:43	5° ≈ 38'46	-1°-14'-20
direct	-2645 May 22 j 11:56	0°Ω		minimum elong	-2639 Feb 15 j 01:42	5°≈38'45	1°14'24
	-2645 Aug 17 j 10:10			max. Earth dist.	-2639 Feb 16 j 14:46	6°≈00'53	5.99760 AU
evening set	-2645 Aug 21 j 19:39			morning rise	-2639 Feb 28 j 12:59	8°≈51'10	0.55700110
max. Earth dist.	-2645 Sep 01 j 21:45		6.39542 AU		-2639 Mar 27 j 04:44	15° ≈	
				retrograde	-2639 Jul 10 j 13:46		
conjunction	-2645 Sep 03 j 13:35	18° Ω 45'26	1°19'07	min. Earth dist.	-2639 Sep 07 j 03:48	24°≈18′20	4.01558 AU
minimum elong	-2645 Sep 03 j 13:34	18° Ω 45'26	1°19'09	opposition	-2639 Sep 08 j 09:20	24°≈08'17	-1°-57'-10
morning rise	-2645 Sep 16 j 04:35	21° Ω 32'10		direct	-2639 Nov 05 j 08:07	19° ≈ 12'15	
	-2645 Oct 27 j 00:15	0° m)			-2638 Jan 31 j 18:49	0°) €	
retrograde	-2644 Jan 15 j 01:21	8° m 39'03		evening set	-2638 Mar 10 j 22:40	8°) 32′29	
opposition	-2644 Mar 15 j 20:29	3° m 47'33	1°54'01				
min. Earth dist.	-2644 Mar 17 j 03:18	3° m 37'44	4.36982 AU	conjunction	-2638 Mar 24 j 13:42	11°) (44′00	-1°-14'-27
	-2644 Apr 18 j 19:23	30°R Ω		minimum elong	-2638 Mar 24 j 13:44		1°14'30
direct	-2644 May 17 j 11:04	28° Ω 47'21		max. Earth dist.	•		6.04819 AU
	-2644 Jun 15 j 04:12	0° m y		morning rise	-2638 Apr 07 j 06:56	14° ¥ 56'33	
evening set	-2644 Sep 20 j 17:31	16° Mp 43'04			-2638 Jun 20 j 06:23	0° Υ	
max. Earth dist.	-2644 Oct 01 j 11:17	19° m 07'18	6.32896 AU	retrograde	-2638 Aug 15 j 04:54	4° Υ 41'37	
	****				-2638 Oct 10 j 19:41	30° R \ (1.50° €	
conjunction	-2644 Oct 03 j 07:06	19° m/31'54	1°11'31	min. Earth dist.	-2638 Oct 12 j 11:28	29°) (46'26	4.09610 AU
minimum elong	-2644 Oct 03 j 07:08	19° My 31'55	1°11'33	opposition	-2638 Oct 13 j 16:02		-1°-34'-37
morning rise	-2644 Oct 15 j 19:17	22° m/20'09		direct	-2638 Dec 11 j 04:27	24° 升 37'25 0° ⋎	
ratrograda	-2644 Nov 20 j 16:29	0° ಎ 01'30		avaning set	-2637 Feb 08 j 22:58 -2637 Apr 16 j 17:45		
retrograde opposition	-2643 Feb 15 j 20:37 -2643 Apr 17 j 20:58	5° £ 01'30	1°27'24	evening set	-2037 Apr 10 J 17:43	15 1 30 33	
оррознин	2073 Apr 1/J 20.38	J ==091/	1 4/4				

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2637 in astronomical counting style is the year 2638 BCE in historical counting style. $-2637 \text{ Apr } 30 \text{ j } 12:27 \quad 16^{\circ} \Upsilon 45'10 \quad 0^{\circ} -47' -21$ retrograde -2631 Feb 20 i 11:45 14° **2**34'10 conjunction -2637 Apr 30 j 12:31 16°**Y**45'11 -2631 Apr 22 j 13:22 9°**Ω**41'43 1°21'13 minimum elong 0°47'21 opposition 9°<u>م</u>32'39 -2637 May 02 j 04:28 17°**Υ**'08'00 min. Earth dist. -2631 Apr 23 j 17:54 max. Earth dist. 6.15164 AU 4 26443 AU -2637 May 14 j 07:41 -2631 Jun 23 j 08:06 19°**Y**53'46 direct 4°**£**44'36 morning rise -2637 Jun 30 j 21:47 evening set -2631 Oct 26 j 13:09 23°**£**02'29 0°X -2637 Sep 17 j 17:05 -2631 Nov 06 j 18:38 25°**♀**37'39 8°**8**38'34 retrograde max. Earth dist. 6.20571 AU 3°**8**42'37 4.21103 AU min. Earth dist. -2637 Nov 15 j 08:33 -2631 Nov 08 j 03:26 25°**♀**56'36 opposition -2637 Nov 16 j 04:04 3°**8**36'01 0°-40'-11 conjunction 0°37'09 -2631 Nov 08 j 03:28 25°**£**56'38 -2637 Dec 15 j 23:48 30°R**Y** minimum elong 0°37'07 -2636 Jan 14 j 19:29 28° **Y**34'02 -2631 Nov 20 j 18:07 28°**♀**51'08 direct morning rise -2636 Feb 14 j 01:16 0° 8 -2631 Nov 25 j 18:29 0° M -2636 May 11 j 16:46 15°**8** -2630 Feb 14 j 00:35 15°M -2636 May 21 j 03:41 17°**8**04'40 -2630 Mar 27 j 10:45 17° ML33'49 evening set retrograde -2630 May 08 j 07:40 15°RM conjunction -2636 Jun 03 j 20:24 20°807'25 0°-5'-14 opposition -2630 May 27 j 10:50 12°MJ38'49 0°22'56 minimum elong -2636 Jun 03 j 20:26 20°**8**07'26 0°05'11 min. Earth dist. -2630 May 28 j 03:08 12°M33'34 4.14556 AU behind sun begin -2636 Jun 03 j 12:23 20°**8**02'58 direct -2630 Jul 26 j 23:50 7°**M**L44'15 behind sun end -2636 Jun 04 j 04:28 20°**8**11'53 -2630 Oct 06 j 02:58 15°M max. Earth dist. -2636 Jun 04 j 14:28 20°**8**17'28 6.26961 AU desc. node -2630 Oct 07 j 12:06 15° ML 15'20 morning rise -2636 Jun 17 j 11:31 23°809'10 evening set -2630 Nov 28 j 12:00 26°M29'32 -2636 Jul 19 j 14:25 Π $^{\circ}0$ asc. node -2636 Jul 20 j 08:01 0°**Ⅱ**08'52 conjunction -2630 Dec 11 i 06:52 29°M 30'30 retrograde -2636 Oct 18 j 14:00 10°**I** 56'13 minimum elong -2630 Dec 11 j 06:51 29° ML 30'29 0°07'45 opposition -2636 Dec 17 i 04:27 5°**Д**57'31 0°24'08 behind sun begin -2630 Dec 10 j 23:34 29°M26'12 min. Earth dist. -2636 Dec 17 j 01:00 5°**Ⅱ**58'40 4.32125 AU behind sun end -2630 Dec 11 j 14:09 29°M34'47 -2635 Feb 16 j 04:38 0°**I**I54'08 max. Earth dist. -2630 Dec 10 j 20:48 29°M24'34 6.09035 AU direct -2635 Jun 23 j 19:48 18°**Д**59'34 -2630 Dec 13 j 08:46 0°**∡**¹ evening set -2630 Dec 24 j 03:30 2°**∡**³32'39 morning rise -2635 Jul 07 j 05:24 21°**Д**55'27 0°37'10 -2629 May 03 j 03:25 22° ₹ 13'58 conjunction retrograde -2635 Jul 07 j 05:22 21° **II** 55'26 0°37'13 -2629 Jul 02 j 20:18 17° **₹** 15'20 0°-46'-28 minimum elong opposition -2635 Jul 06 j 22:02 21°**Д**51'25 6.36375 AU -2629 Jul 02 j 17:42 17° ₹ 16'11 4.04361 AU max. Earth dist. min. Earth dist. -2635 Jul 20 j 12:04 24°**II**49'47 -2629 Aug 30 j 23:52 12°**尽**22'13 direct morning rise -2635 Aug 13 j 20:09 0°€ -2629 Dec 26 j 18:49 0°ಕ -2635 Nov 18 j 08:30 11°958'30 -2628 Jan 02 j 08:49 1°る33'32 retrograde evening set -2634 Jan 17 j 08:33 7°503'29 1°18'50 opposition 6°€59'33 4.39355 AU -2628 Jan 15 j 10:07 4°る40'49 0°-51'-10 -2634 Jan 17 j 20:36 min. Earth dist. conjunction -2634 Mar 20 j 10:18 2°900'05 -2628 Jan 15 j 10:04 4°る40'47 0°51'15 direct minimum elong evening set -2634 Jul 25 j 23:13 19°550'25 max. Earth dist. -2628 Jan 16 j 02:34 4°る50'40 6.01093 AU morning rise -2628 Jan 28 j 14:41 7°**る**49'52 conjunction -2634 Aug 07 j 23:45 22°540'44 1°07'49 retrograde -2628 Jun 08 j 16:41 28°중10'38 minimum elong -2634 Aug 07 j 23:42 22°540'43 1°07'53 opposition -2628 Aug 07 j 21:45 23°♂08'09 -1°-40'-53 max. Earth dist. -2634 Aug 06 j 19:22 22°525'13 min. Earth dist. -2628 Aug 07 j 00:45 23°る15'11 3.99626 AU 6.40796 AU -2634 Aug 20 j 20:58 25°529'28 direct -2628 Oct 05 j 01:34 18°る14'20 morning rise -2634 Sep 11 j 01:23 0°**Ω** -2627 Jan 04 j 11:50 retrograde -2634 Dec 19 j 01:14 12° Ω 25'27 -2627 Feb 06 j 22:16 evening set 7°≈39'22 -2633 Feb 17 j 11:28 opposition 7°Ω33'04 1°50'43 -2627 Feb 20 i 07:19 10°≈50'30 -1°-16'-10 min. Earth dist. -2633 Feb 18 i 12:51 7°**Ω**24'55 4.40829 AU conjunction -2627 Feb 20 i 07:17 10°≈50'29 1°16'14 direct -2633 Apr 21 i 03:31 2°**Ω**30′56 minimum elong -2627 Feb 22 i 00:35 11°≈15'07 5.99911 AU $-2633 \text{ Aug } 01 \text{ i } 04:09 \quad 15^{\circ}\Omega$ max. Earth dist. -2633 Aug 26 j 02:53 $20^{\circ}\Omega$ 18'35 -2627 Mar 05 j 19:25 14°≈03'14 evening set morning rise max. Earth dist. -2633 Sep $06 \text{ j } 01:22 \quad 22^{\circ} \Omega 42'57$ 6.39081 AU -2627 Mar 09 j 19:42 15°≈ -2627 May 22 j 17:42 0°₩ -2633 Sep 07 j 19:49 23° Ω06'24 1°19'24 -2627 Jul 15 j 17:25 4°**)** 22′52 conjunction retrograde minimum elong -2633 Sep 07 j 19:49 $23^{\circ}\Omega 06'23$ 1°19'26 -2627 Sep 08 j 06:40 30°R≈ min. Earth dist. morning rise -2633 Sep 20 j 10:18 $25^{\circ}\Omega 53'03$ -2627 Sep 12 j 04:44 29°≈28'07 4.02294 AU -2627 Sep 13 j 10:32 29°≈17'58 -2633 Oct 09 j 12:21 0° m opposition -1°-56'-34 -2627 Nov 10 j 10:12 24°**≈**21'37 retrograde -2632 Jan 19 j 12:45 13° Mp 02'49 direct -2632 Mar 20 j 08:10 8° mp 11'17 1°52'14 -2626 Jan 09 j 22:26 opposition 0°**₩** min. Earth dist. -2632 Mar 21 j 15:55 8° Mp 01'10 4.36113 AU -2626 Mar 16 j 03:58 13° **★** 39'54 evening set 3° m 11'20 direct -2632 May 21 j 21:59 -2626 Mar 29 j 19:40 16° ¥ 51'12 -1°-12'-6 evening set -2632 Sep 25 j 00:27 21° m 08'42 conjunction max. Earth dist. -2632 Oct 05 j 19:33 23° M 34'02 6.31685 AU minimum elong -2626 Mar 29 j 19:43 16° **€** 51'13 1°12'08 max. Earth dist. -2626 Mar 31 j 20:39 17°**米** 19'49 6.06083 AU conjunction -2632 Oct 07 j 14:00 23° M 57'56 1°08'41 morning rise -2626 Apr 12 j 13:36 20°**米**03'25 minimum elong -2632 Oct 07 j 14:02 23° m 57'58 1°08'41 -2626 May 28 j 01:51 $0^{\circ}\Upsilon$ -2632 Oct 20 j 02:01 26° Mp 46'40 retrograde -2626 Aug 19 j 23:30 9°Y40'22 morning rise -2632 Nov 03 j 15:38 min. Earth dist. -2626 Oct 17 j 06:04 4°Υ45'33 4.11284 AU Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 25

•	ical year style is used: The		•	, , ,			
opposition	-2626 Oct 18 j 11:08	-	-1°-28'-25	max. Earth dist.	-2620 Oct 09 j 23:46		
оррожной	-2626 Nov 30 j 18:02		1 20 20	man. Bartin diot.	2020 000 07 j 25.10	27 ng 00 no	0.2// 00 110
direct	-2626 Dec 16 j 02:12			conjunction	-2620 Oct 11 j 19:28	28°m21'29	1°05'31
direct	-2626 Dec 31 j 14:04	0°Υ		minimum elong	-2620 Oct 11 j 19:31		1°05'30
evening set	-2625 Apr 21 j 18:44			minimum ciong	-2620 Oct 19 j 01:45	20 औ2130 0° ರ	1 03 30
evening set	-2025 Apr 21 j 10.44	10 1 30 23		morning rise	-2620 Oct 24 j 07:50	0 — 1° ⊆ 11'02	
conjunction	-2625 May 05 j 13:28	210\V28!11	0°-42'-2	retrograde	-2619 Feb 25 j 04:45		
minimum elong	-2625 May 05 j 13:31		0°42'01	opposition	-2619 Apr 27 j 05:30		1°14'39
max. Earth dist.	-2625 May 07 j 03:11	21° Υ 59'38	6.17121 AU	min. Earth dist.	-2619 Apr 28 j 09:21		4.24349 AU
morning rise	-2625 May 19 j 08:23		0.17121 AO	direct	-2619 Jun 27 j 20:21	9° £ 17'14	4.2434) AO
morning risc	-2625 Jun 12 j 02:46	0° 8		evening set	-2619 Oct 30 j 23:50		
retrograde	-2625 Sep 22 j 06:08	_		evening set	-2619 Nov 10 j 00:57	0°M₁	
opposition	-2625 Nov 20 j 16:43	8° 8 18'35	0°-31'-22	max. Earth dist.	-2619 Nov 10 j 00:37	0° M ₊18'49	6.18360 AU
min. Earth dist.	-2625 Nov 19 j 23:46	8° 8 24'19	4.23131 AU	max. Earth dist.	-2019 NOV 11 J 09.23	0 1161049	0.18300 AU
direct	-2624 Jan 19 j 14:00	3° 8 16'19	4.23131 AU	conjunction	-2619 Nov 12 j 14:50	0°M35'55	0°31'31
direct	-2624 Apr 24 j 12:46			-	-	0°M35'56	0°31'29
				minimum elong	-2619 Nov 12 j 14:52	3°M31'41	0 31 29
evening set	-2624 May 25 j 21:35			morning rise	-2619 Nov 25 j 06:10		
asc. node	-2624 May 31 j 05:18	22°032'04		. 1	-2618 Jan 18 j 07:53		
	2624 1 00:12.24	240 42107	0000150	retrograde	-2618 Apr 01 j 11:23		0012120
conjunction	-2624 Jun 08 j 13:34	_	0°00'58	opposition	-2618 Jun 01 j 10:33		0°13'28
minimum elong	-2624 Jun 08 j 13:33		0°01'02	min. Earth dist.	-2618 Jun 02 j 00:31		4.12406 AU
behind sun begin	-2624 Jun 08 j 05:15				-2618 Jun 21 j 16:25		
behind sun end	-2624 Jun 08 j 21:52			direct	-2618 Jul 31 j 18:04		
max. Earth dist.	-2624 Jun 09 j 04:53		6.28895 AU	desc. node	-2618 Aug 17 j 17:18		
morning rise	-2624 Jun 22 j 03:34				-2618 Sep 09 j 02:56		
	-2624 Jul 02 j 13:23	0°II		_	-2618 Nov 27 j 03:33	0° ∡	
retrograde	-2624 Oct 22 j 18:44			evening set	-2618 Dec 03 j 06:33	1° ∡ ¹26′11	
opposition	-2624 Dec 21 j 11:37		0°32'30			_	
min. Earth dist.	-2624 Dec 21 j 09:40		4.33820 AU	conjunction	-2618 Dec 16 j 02:10	4° ₹ 28'20	0°-14'-11
direct	-2623 Feb 20 j 15:17			minimum elong	-2618 Dec 16 j 02:09	4° ≯ 28'19	0°14'16
evening set	-2623 Jun 28 j 06:53	23° Ⅱ 22'06		behind sun begin	-2618 Dec 15 j 22:10	4° ≯ 25'58	
				behind sun end	-2618 Dec 16 j 06:08	4° ∡ ³30'40	
conjunction	-2623 Jul 11 j 15:09		0°42'12	max. Earth dist.	-2618 Dec 15 j 19:02	4° ∡ ¹24'06	6.07137 AU
minimum elong	-2623 Jul 11 j 15:06		0°42'16	morning rise	-2618 Dec 29 j 00:05	7° ∡ ³31'50	
max. Earth dist.	-2623 Jul 11 j 03:51	26° Ⅱ 10'43	6.37688 AU	retrograde	-2617 May 08 j 10:08	27° ₹ ¹22'09	
morning rise	-2623 Jul 24 j 20:26	29° Ⅱ 10′08		opposition	-2617 Jul 08 j 01:31		0°-55'-40
	-2623 Jul 28 j 16:29	0 \circ \odot		min. Earth dist.	-2617 Jul 07 j 19:12		4.02911 AU
retrograde	-2623 Nov 22 j 12:30	16° © 14'24		direct	-2617 Sep 05 j 00:27	17° ∡ ¹29'46	
opposition	-2622 Jan 21 j 13:16	11° © 19'51	1°24'38		-2617 Dec 09 j 05:36	0°₹	
min. Earth dist.	-2622 Jan 22 j 04:25	11° © 14'55	4.40202 AU	evening set	-2616 Jan 07 j 11:10	6° ප 45'14	
direct	-2622 Mar 24 j 18:42	6°916'31					
evening set	-2622 Jul 30 j 05:07	24° © 04'56		conjunction	-2616 Jan 20 j 13:44	9° る 53'25	0°-56'-9
max. Earth dist.	-2622 Aug 10 j 20:07	26°536'57	6.41074 AU	minimum elong	-2616 Jan 20 j 13:41	9° る 53'23	0°56'15
				max. Earth dist.	-2616 Jan 21 j 12:20	10° ට 06'58	6.00229 AU
conjunction	-2622 Aug 12 j 04:28	26°954'38	1°10'34	morning rise	-2616 Feb 02 j 19:17	13° る 03'18	
minimum elong	-2622 Aug 12 j 04:25	26°554'37	1°10'38		-2616 Apr 27 j 06:46	0° ≈	
morning rise	-2622 Aug 25 j 00:37	29° 5 42'48		retrograde	-2616 Jun 14 j 01:24	3° ≈ 27'14	
	-2622 Aug 26 j 08:17	$0^{\circ}\Omega$			-2616 Aug 01 j 01:32	30°R₹	
	-2622 Nov 20 j 11:31	15° Ω		min. Earth dist.	-2616 Aug 12 j 05:09	28° පි 31'50	3.99462 AU
retrograde	-2622 Dec 23 j 05:34	16° Ω 38'51		opposition	-2616 Aug 13 j 03:51	28° පි 24'13	-1°-45'-48
	-2621 Jan 25 j 03:06	15°R Ω		direct	-2616 Oct 10 j 06:08	23° る 30'07	
opposition	-2621 Feb 21 j 17:03	11° Ω 46'38	1°52'45		-2616 Dec 14 j 08:01	0° ≈	
min. Earth dist.	-2621 Feb 22 j 20:03	11° Ω 37'58	4.40541 AU	evening set	-2615 Feb 12 j 05:08	12° ≈ 55′25	
direct	-2621 Apr 25 j 09:10	6° Ω 44'39			-2615 Feb 20 j 22:57	15° ≈	
	-2621 Jul 14 j 13:35	15° Ω					
evening set	-2621 Aug 30 j 06:42	24° Ω 33'08		conjunction	-2615 Feb 25 j 15:06	16° ≈ 06'45	-1°-17'-25
max. Earth dist.	-2621 Sep 10 j 04:11	26° Ω 57'15	6.38233 AU	minimum elong	-2615 Feb 25 j 15:05	16° ≈ 06'44	1°17'28
				max. Earth dist.	-2615 Feb 27 j 10:37	16° ≈ 32'38	6.00412 AU
conjunction	-2621 Sep 11 j 23:03	27° Ω 20'59	1°19'15	morning rise	-2615 Mar 11 j 04:20	19° ≈ 19'40	
minimum elong	-2621 Sep 11 j 23:03	27° Ω 20'59	1°19'17	-	-2615 Apr 28 j 09:32	0°)	
-	-2621 Sep 23 j 22:47	0° m)		retrograde	-2615 Jul 20 j 19:10	9°) 34'48	
morning rise	-2621 Sep 24 j 12:49	0° m, 07'43		min. Earth dist.	-2615 Sep 17 j 04:45	4°) (40′26	4.03398 AU
retrograde	-2620 Jan 23 j 21:31	17° m) 21'55		opposition	-2615 Sep 18 j 12:18	4°) 29'41	-1°-55'-1
opposition	-2620 Mar 24 j 17:43	12° m/30'23	1°49'54		-2615 Oct 30 j 08:24	30°R≈	
min. Earth dist.	-2620 Mar 26 j 02:17	12° m 20'02	4.34751 AU	direct	-2615 Nov 15 j 12:38	29° ≈ 32'50	
direct	-2620 May 26 j 05:32	7° m 30'47			-2615 Dec 01 j 19:58	0° ∀	
evening set	-2620 Sep 29 j 06:08			evening set	-2614 Mar 21 j 09:40	18°) 47′39	
-	• •			-	, and the second second		

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2614 in astronomical counting style is the year 2615 BCE in historical counting style. -2614 Apr 04 j 02:02 21°**)** 58'31 -1°-9'-10 minimum elong -2609 Sep 16 j 05:47 1° m 44'32 1°18'41 conjunction -2614 Apr 04 j 02:05 21°) (58'32 -2609 Sep 28 j 19:10 minimum elong 1°09'11 morning rise 4° m 31'30 -2614 Apr 06 j 02:21 22° \(\frac{1}{2}\)26'38 -2608 Jan 28 j 10:34 21° m 50'47 max. Earth dist. 6.07656 AU retrograde -2614 Apr 17 j 20:20 25°**光** 10'09 -2608 Mar 29 j 07:41 16° **m** 59'12 1°46'51 morning rise opposition $0^{\circ}\Upsilon$ -2614 May 09 j 04:49 -2608 Mar 30 j 15:50 min. Earth dist. 16° Mp 48'58 4.33364 AU -2614 Aug 24 j 19:12 14° **Y**37'59 retrograde direct -2608 May 30 j 16:35 12° m 00'00 -2614 Oct 22 j 03:04 9°**Υ**42'42 4.13113 AU -2608 Oct 03 j 15:15 min. Earth dist. evening set 0°**ჲ**04'06 9°**Y**33'26 opposition -2614 Oct 23 j 06:12 -1°-21'-35 -2608 Oct 03 j 07:57 0∘ಹ direct -2614 Dec 21 j 02:15 4°**Υ**33'20 max. Earth dist. -2608 Oct 14 j 11:31 2°**₽**31'18 6.28267 AU evening set -2613 Apr 26 j 19:22 23°**Y**22'41 conjunction -2608 Oct 16 j 04:42 2°**£**54'41 1°01'49 -2613 May 10 j 14:06 26°**Y**29'36 0°-36'-24 -2608 Oct 16 j 04:45 conjunction minimum elong 2°**£**54'43 1°01'49 -2613 May 10 j 14:09 26°**Υ**29'37 -2608 Oct 28 j 17:06 minimum elong 0°36'23 morning rise 5°**£**45'00 max. Earth dist. -2613 May 12 j 02:10 26° Υ 50'00 6.19060 AU retrograde -2607 Mar 02 j 01:07 23°**♀**48'41 morning rise -2613 May 24 j 08:33 29°**Y**36'10 opposition -2607 May 02 j 01:47 18°**♀**55'45 1°07'19 -2613 May 26 j 03:04 0°8 min. Earth dist. -2607 May 03 j 04:28 18°**≗**47'15 4.22569 AU 13°**≏**59'27 -2613 Aug 13 j 10:08 15°**8** direct -2607 Jul 02 j 13:03 retrograde -2613 Sep 26 j 17:05 18°**8**01'32 -2607 Oct 24 j 20:57 0°M -2613 Nov 09 j 22:57 15°R& evening set -2607 Nov 04 j 13:48 2°M26'59 opposition -2613 Nov 25 j 05:06 12°\(\begin{align*} \begin{al max. Earth dist. -2607 Nov 16 j 01:23 5°**™**07'04 6.16614 AU min. Earth dist. -2613 Nov 24 j 13:22 13°**8**05'17 4.24997 AU direct -2612 Jan 24 i 05:47 7°**と**57'30 conjunction -2607 Nov 17 i 05:09 5°M23'14 0°25'30 -2612 Apr 04 i 19:18 15°8 minimum elong -2607 Nov 17 i 05:10 5°M23'15 0°25'27 asc. node -2612 Apr 10 j 00:46 15°855'44 morning rise -2607 Nov 29 i 21:23 8°M20'08 evening set -2612 May 30 j 15:50 26°818'10 -2607 Dec 29 j 14:50 15°M -2606 Apr 06 j 13:32 27° M21'50 retrograde -2612 Jun 13 j 06:49 29°8 18'42 0°07'09 -2606 Jun 06 j 12:31 22°M25'55 conjunction opposition 0°03'39 -2612 Jun 13 j 06:48 29°**8**18'41 0°07'12 -2606 Jun 06 j 22:58 22°M22'33 min. Earth dist. 4.10850 AU minimum elong -2612 Jun 12 j 23:13 29°**8**14'31 -2606 Jun 27 j 08:39 19°M 52'30 behind sun begin desc node -2612 Jun 13 j 14:22 29°**8**22'52 -2606 Aug 05 j 15:09 17° M 31'59 behind sun end direct -2606 Nov 09 j 22:38 -2612 Jun 13 j 16:58 29°**8**24'18 max. Earth dist. 6.30550 AU 0°**∡**¹ -2606 Dec 08 j 02:41 -2612 Jun 16 j 09:28 0°**Ⅱ** 6°**х** 26′52 evening set -2612 Jun 26 j 19:51 2°**Ⅱ**18′03 morning rise -2612 Oct 27 j 03:03 19°**I**50'15 -2606 Dec 20 j 23:17 9°**₹**29'57 0°-20'-42 retrograde conjunction -2612 Dec 25 j 20:11 14°**Д**52'38 0°40'49 -2606 Dec 20 j 23:15 opposition minimum elong 9°×29'56 0°20'47 -2612 Dec 25 j 21:41 14°**Д**52'08 4.35146 AU -2606 Dec 20 j 21:57 min. Earth dist. max. Earth dist. 9°**∡**29'09 6.05939 AU -2605 Jan 02 j 22:01 12°**尽** 34'22 direct -2611 Feb 25 j 04:54 9°**II**49'06 morning rise -2611 Jul 02 j 19:01 27°**Ⅱ**47'31 -2605 Apr 03 j 01:13 0°궁 evening set -2611 Jul 12 j 22:17 0ಂತಾ retrograde -2605 May 13 j 17:46 2°る30'45 max. Earth dist. -2611 Jul 15 j 11:57 0°ട്ട33'42 6.38579 AU -2605 Jun 23 j 12:13 30°R 🗷 opposition -2605 Jul 13 j 06:28 27°**₹** 30'56 -1°-4'-26 -2611 Jul 16 j 02:11 0°9541'29 0°47'07 min. Earth dist. -2605 Jul 12 j 22:00 27° ₹33'44 4.02213 AU conjunction -2611 Jul 16 j 02:08 0°9541'27 direct -2605 Sep 10 j 02:16 22° ₹37'51 minimum elong 0°47'11 -2611 Jul 29 j 06:04 3°9533'49 -2605 Nov 19 j 05:31 morning rise 0°**ਤ** -2611 Nov 26 j 17:37 20°535'21 -2604 Jan 12 j 12:49 11° ₹54'49 retrograde evening set -2610 Jan 25 j 20:40 15°5641'13 1°30'11 opposition -2604 Jan 25 i 16:12 15°**⋜**03'27 -1°00'-40 min. Earth dist. -2610 Jan 26 j 13:10 15°535'51 4.40634 AU conjunction direct -2610 Mar 29 i 03:13 10°538'03 minimum elong -2604 Jan 25 i 16:08 15° ₹03'25 1°00'46 evening set -2610 Aug 03 j 13:38 28°\$25'50 max. Earth dist. -2604 Jan 26 j 17:46 15° ₹ 18'46 6.00064 AU -2610 Aug 10 j 18:35 -2604 Feb 07 i 22:56 18° ₹ 13'51 $\Omega^{\circ}\Omega$ morning rise max. Earth dist. -2610 Aug 15 j 01:07 0°**Ω**56'06 6.41006 AU -2604 Apr 01 i 09:17 0°≈≈ -2604 Jun 19 j 04:29 retrograde 8°2238'00 1°Ω15'04 1°13'03 -2604 Aug 17 j 05:25 conjunction -2610 Aug 16 j 11:46 min. Earth dist. 3°≈43'08 3 99880 AU minimum elong -2610 Aug 16 j 11:44 1°**Ω**15′03 1°13'06 opposition -2604 Aug 18 j 06:57 3°≈34'33 -1°-49'-43 morning rise -2610 Aug 29 j 06:50 4°**Ω**02'50 -2604 Sep 17 j 04:35 30°R ₹ -2610 Oct 23 j 10:33 15°**Ω** direct -2604 Oct 15 j 07:08 28° ₹40'09 -2604 Nov 12 j 10:24 retrograde -2610 Dec 27 j 14:36 21°**Ω**00'09 0°≈ -2609 Feb 26 j 02:26 $16^{\circ}\Omega$ 08'13 $1^{\circ}54'17$ -2603 Feb 04 j 06:14 15°≈ opposition -2609 Feb 27 j 07:34 15° Ω 58'53 4.39991 AU -2603 Feb 17 j 08:50 18°≈03'53 min. Earth dist. evening set -2609 Mar 07 j 01:18 15°RΩ -2609 Apr 29 j 19:36 11°Ω06'34 direct conjunction -2603 Mar 02 j 19:43 21°≈15'11 -1°-18'-1 -2609 Jun 21 j 18:54 15°Ω minimum elong -2603 Mar 02 j 19:43 21°≈15'10 1°18'04 evening set -2609 Sep 03 j 14:06 $28^{\circ}\Omega$ 56'32 max. Earth dist. -2603 Mar 04 j 16:50 21°≈41'57 6.01345 AU -2609 Sep 08 j 09:11 0°m morning rise -2603 Mar 16 j 09:40 24°≈27'57 max. Earth dist. -2609 Sep 14 j 08:59 1°**m**) 19'40 6.37228 AU -2603 Apr 09 j 11:30 0°**)**€ -2603 Jul 25 j 18:04 14°**)** 37'15 retrograde -2609 Sep 16 j 05:46 1° Mp 44'31 1°18'40 min. Earth dist. -2603 Sep 22 j 03:07 9°**)**42'30 4.04730 AU conjunction

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2603 in astronomical counting style is the year 2604 BCE in historical counting style. -2603 Sep 23 j 09:51 9° ★ 32'01 -1°-52'-37 conjunction -2597 Sep 20 i 13:07 6° mp 10'03 1°17'35 opposition -2603 Nov 20 j 13:17 minimum elong -2597 Sep 20 j 13:09 direct 4°**)**(34'39 6° m 10'03 1°17'37 -2602 Mar 26 j 11:17 23° **∺**45'35 -2597 Oct 03 j 02:05 evening set 8° m 57'17 morning rise -2596 Feb 02 j 01:30 26° m 21'45 retrograde -2596 Apr 02 j 22:56 21° M 30'06 -2602 Apr 09 j 04:18 26° ¥ 56'00 -1°-5'-49 conjunction opposition 1°43'06 -2602 Apr 09 j 04:21 26° ¥ 56'01 -2596 Apr 04 j 07:20 21° **m** 19'48 minimum elong 1°05'50 min. Earth dist. 4.32032 AU -2596 Jun 04 j 06:50 -2602 Apr 11 j 04:28 16°M/31'18 max. Earth dist. 27°**¥**23'55 6.09267 AU direct 0°**Υ**07'00 -2596 Sep 17 j 01:32 morning rise -2602 Apr 22 j 22:50 0∘ಹ $0^{\circ}\Upsilon$ -2602 Apr 22 j 10:39 evening set -2596 Oct 08 j 01:10 4°**£**38′05 retrograde -2602 Aug 29 j 09:45 19°**Y**25′50 max. Earth dist. -2596 Oct 18 j 21:59 7°**₽**06'09 6.26801 AU opposition -2602 Oct 27 j 20:51 14°**Y**′21'36 -1°-14'-27 -2602 Oct 26 j 18:36 14°**Υ**'30'33 4.14831 AU -2596 Oct 20 j 14:35 min. Earth dist. conjunction 7°**₽**29'16 0°57'43 9°**Y**21'07 -2596 Oct 20 j 14:38 direct -2602 Dec 25 j 19:23 minimum elong 7°**≏**29'18 0°57'43 evening set -2601 May 01 j 16:09 28°**Y**06'06 morning rise -2596 Nov 02 j 03:23 10°**♀**20'20 -2601 May 10 j 02:37 0°8 retrograde -2595 Mar 06 j 20:19 28°**△**31'04 opposition -2595 May 06 j 22:17 23°**♀**37'45 0°59'29 conjunction -2601 May 15 j 10:34 1°812'12 0°-30'-44 min. Earth dist. -2595 May 07 j 22:11 23°**₽**30'07 4.21058 AU minimum elong -2601 May 15 j 10:36 1°**8**12'13 0°30'42 direct -2595 Jul 07 j 05:00 18°**≏**41'46 max. Earth dist. -2601 May 16 j 17:35 1°**8**29'42 6.20742 AU -2595 Oct 07 j 18:50 0°M morning rise -2601 May 29 j 04:43 4°817'52 evening set -2595 Nov 09 j 03:37 7° **ጤ**12'25 -2601 Jul 19 j 17:58 15°8 retrograde -2601 Oct 01 i 02:16 22°\(\alpha \)35'10 conjunction -2595 Nov 21 j 19:36 10°ML09'30 0°19'19 opposition -2601 Nov 29 j 14:40 17°\(34'06 0°-13'-27 minimum elong -2595 Nov 21 i 19:37 10°ML09'31 0°19'16 min. Earth dist. -2601 Nov 29 i 02:03 17°\(\dagger 38'20 \) 4.26490 AU max. Earth dist. -2595 Nov 20 i 20:18 9°M55'53 6.15193 AU -2601 Dec 19 j 16:52 15°R8 morning rise -2595 Dec 04 j 12:27 13°ML07'19 -2600 Jan 28 j 20:31 12°**8**31'20 -2595 Dec 12 j 15:46 15°M direct -2600 Feb 19 j 23:46 13°**8**17'27 -2594 Mar 03 j 20:43 asc node 0°×7 -2600 Mar 09 j 11:11 15°8 -2594 Apr 11 j 16:34 retrograde 2°**х** 16′22 -2594 May 07 j 11:41 -2600 May 31 j 13:44 desc. node 1°**∡**14'33 0°Π -2600 Jun 04 j 06:57 0°**Ⅱ**48'47 -2594 May 20 j 18:05 30°RM evening set -2594 Jun 11 j 13:45 27°ML19'58 0°-6'-9 opposition -2600 Jun 17 j 21:13 3°**Д**48'29 0°13'06 -2594 Jun 11 j 22:29 27° **M** 17'09 conjunction min. Earth dist. 4.09615 AU -2600 Jun 17 j 21:12 3°**Ⅱ**48'28 0°13'09 direct -2594 Aug 10 j 12:49 22°M26'15 minimum elong -2600 Jun 17 j 16:29 3°**Ⅱ**45'53 -2594 Oct 21 j 15:23 0° ₹ behind sun begin -2600 Jun 18 j 01:56 3°**Ⅲ**51′04 -2594 Dec 12 j 21:53 11°**尽** 23'50 behind sun end evening set -2600 Jun 18 j 04:48 3°**Ⅲ**52'39 max. Earth dist. 6.31754 AU -2600 Jul 01 j 09:02 6° **1** 46'52 -2594 Dec 25 j 19:12 14° ₹27'40 0°-27'-2 morning rise conjunction retrograde -2600 Oct 31 j 08:03 24°**II**14'03 minimum elong -2594 Dec 25 j 19:10 14°**₹**27'38 0°27'07 -2600 Dec 30 j 02:57 19°**Ц**16'59 0°48'42 max. Earth dist. -2594 Dec 25 j 20:28 14°**х** 28'25 6.04984 AU opposition min. Earth dist. -2600 Dec 30 j 06:05 19°**Ⅱ**15'57 4.35998 AU morning rise -2593 Jan 07 j 19:06 17°**尽** 32'59 -2599 Mar 01 j 14:07 14°**Ⅲ**13'26 -2593 Mar 06 j 07:20 0°る direct -2599 Jun 27 j 03:17 -2593 May 18 j 20:30 7°る34'26 0ಂತಾ retrograde -2599 Jul 07 j 06:04 2°510'31 -2593 Jul 18 j 09:19 2°**ට**34'05 -1°-12'-39 evening set opposition min. Earth dist. -2593 Jul 17 j 21:27 2°る38'00 4.01654 AU -2599 Jul 20 j 11:51 5°503'46 0°51'41 -2593 Aug 07 j 20:50 30°R ⊀ conjunction -2599 Jul 20 j 11:48 minimum elong 5°503'45 0°51'44 direct -2593 Sep 15 i 00:40 27° ₹ 40'57 max. Earth dist. -2599 Jul 19 i 17:05 4°953'31 6.39011 AU -2593 Oct 22 i 17:26 0°궁 morning rise -2599 Aug 02 j 14:37 7°955'27 evening set -2592 Jan 17 j 13:06 16°る59'21 retrograde -2599 Dec 01 i 00:55 24°555'40 -2598 Jan 30 i 03:57 20°501'56 1°35'11 conjunction -2592 Jan 30 j 17:31 20° ₹ 08'27 -1°-4'-42 opposition min. Earth dist. -2598 Jan 30 j 23:24 19°555'38 4.40650 AU minimum elong -2592 Jan 30 j 17:28 20°る08'26 1°04'46 max. Earth dist. direct -2598 Apr 02 j 13:47 14°558'53 -2592 Jan 31 j 22:30 20°る25'49 5.99936 AU -2598 Jul 25 j 22:53 -2592 Feb 13 j 01:11 23°る19'20 $0^{\circ}\Omega$ morning rise evening set -2598 Aug 07 j 21:55 2°**Ω**47'07 -2592 Mar 13 j 00:23 0°≈ -2592 Jun 24 j 07:40 13°≈43'41 max. Earth dist. -2598 Aug 19 j 07:07 5°**Ω**16'22 6.40594 AU retrograde min. Earth dist. -2592 Aug 22 j 06:02 8°≈48'38 4.00206 AU conjunction -2598 Aug 20 j 19:09 5°**Ω**36'07 1°15'05 opposition -2592 Aug 23 j 07:59 8°≈39'52 -1°-52'-49 -2598 Aug 20 j 19:07 5°**Ω**36'06 1°15'09 -2592 Oct 20 j 08:43 minimum elong direct 3°≈45'07 -2598 Sep 02 j 13:11 8°**£**23′39 -2591 Jan 17 j 13:34 morning rise 15°**≈** -2598 Oct 03 j 23:31 15°**Ω** -2591 Feb 22 j 11:27 23°≈08'06 evening set retrograde -2598 Dec 31 j 22:28 $25^{\circ}\Omega$ 23'15 -2597 Mar 02 j 12:42 $20^{\circ}\Omega$ 31'25 1°55'09 conjunction -2591 Mar 07 j 23:24 26°≈19'31 -1°-18'-3 opposition min. Earth dist. -2597 Mar 03 j 17:42 $20^{\circ}\Omega$ 22'08 4.39210 AU minimum elong -2591 Mar 07 j 23:25 26°≈19'31 1°18'06 direct -2597 May 04 j 04:30 15°**Ω**30'04 max. Earth dist. -2591 Mar 09 j 22:36 26°≈47'26 6.02087 AU -2597 Aug 23 j 10:31 0° m morning rise -2591 Mar 21 j 14:11 29°≈32'18 -2597 Sep 07 j 22:03 3°m/21'53 -2591 Mar 23 j 13:29 evening set 0°\ max. Earth dist. -2597 Sep 18 j 17:03 -2591 Jul 30 j 15:43 19°**)** 36'29 5° Mg 45'30 6.36141 AU retrograde

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2591 in astronomical counting style is the year 2592 BCE in historical counting style. -2591 Sep 26 j 23:20 14° \(\frac{1}{4} \) 4.05814 AU morning rise -2585 Oct 07 i 09:29 13° m 25'09 min. Earth dist. -2591 Sep 28 j 06:10 14°\dagger31'17 -1°-49'-28 -2584 Jan 13 j 13:13 0∘**⊽** opposition -2591 Nov 25 j 10:20 9°**)** 33'31 -2584 Feb 06 j 14:05 0°**م**53'33 direct retrograde -2584 Mar 01 j 18:31 -2590 Mar 31 j 12:35 28° **★**41'49 evening set 30°R M -2590 Apr 06 j 04:23 $0^{\circ}\Upsilon$ -2584 Apr 07 j 14:09 opposition 26° m 01'42 1°38'45 min. Earth dist. -2584 Apr 08 j 20:40 25° Mp 52'01 4.31122 AU -2584 Jun 08 j 18:57 1°**Υ**'51'52 -1°-2'-2 conjunction -2590 Apr 14 j 06:01 direct 21°M 03'18 1°**Y**51'54 -2590 Apr 14 j 06:05 minimum elong 1°02'03 -2584 Aug 30 j 04:27 0∘Σ -2590 Apr 16 j 03:08 max. Earth dist. 2°**Y**17'55 6.10587 AU evening set -2584 Oct 12 j 10:09 9°**₽**11'13 morning rise -2590 Apr 28 j 01:02 5°**Y**′02'27 max. Earth dist. -2584 Oct 23 j 09:32 11°**£**41'06 6.25780 AU retrograde -2590 Sep 03 j 00:29 24°Υ13'40 -2590 Oct 31 j 11:23 19°**Υ**18'03 4.16230 AU -2584 Oct 24 j 23:36 12°**£**02'50 min. Earth dist. conjunction 0°53'20 -2584 Oct 24 j 23:39 12°**♀**02'52 opposition -2590 Nov 01 j 11:46 19°**Ƴ**09'45 -1°-6'-51 minimum elong 0°53'19 direct -2590 Dec 30 j 14:16 14°**Y**′08′52 morning rise -2584 Nov 06 j 12:35 14°**£**54'26 -2589 Apr 23 j 17:02 0° 8 -2583 Jan 24 j 05:35 0°M evening set -2589 May 06 j 13:26 2°850'46 retrograde -2583 Mar 11 j 16:16 3°M10'50 -2583 Apr 28 j 00:15 30°R € conjunction -2589 May 20 j 07:50 5°**8**56'14 0°-24'-49 opposition -2583 May 11 j 17:37 28°**♀**17'09 minimum elong -2589 May 20 j 07:52 5°**8**56'15 0°24'47 min. Earth dist. -2583 May 12 j 16:44 28°**2**09'46 4.19961 AU 6°**8**12'37 max. Earth dist. -2589 May 21 j 12:59 6.22136 AU direct -2583 Jul 11 j 22:00 23° **2**21'30 morning rise -2589 Jun 03 j 01:19 9°**8**01'03 -2583 Sep 18 j 06:07 0°M -2589 Jun 30 i 15:36 15°8 evening set -2583 Nov 13 i 15:33 11°ML53'49 retrograde -2589 Oct 05 j 12:35 27°**8**11'20 max. Earth dist. -2583 Nov 25 j 10:29 14°M38'59 6.14121 AU opposition -2589 Dec 04 i 01:14 22°**8**10'52 0°-4'-23 min. Earth dist. -2589 Dec 03 j 14:30 22°**8**14'29 4.27748 AU conjunction -2583 Nov 26 j 08:00 14° ML51'34 0°13'09 asc. node -2589 Dec 31 j 00:37 18°852'41 -2583 Nov 26 j 08:00 14°ML51'34 minimum elong 0°13'06 -2588 Feb 02 j 10:38 17°**8**08'00 -2583 Nov 26 j 03:05 14°M 48'42 direct behind sun begin -2583 Nov 26 j 12:55 14°M 54'26 -2588 May 14 j 18:35 0°Π behind sun end -2588 Jun 08 j 23:41 5°**Ⅲ**23'03 -2583 Nov 26 j 22:25 15°M evening set -2583 Dec 09 j 01:39 17° M 50'10 morning rise 8°**Д**21'55 0°19'04 -2582 Feb 04 j 08:07 conjunction -2588 Jun 22 j 12:53 0°**∡** -2588 Jun 22 j 12:52 minimum elong 8°**Ⅲ**21'55 0°19'08 desc. node -2582 Mar 18 j 23:28 5°**х** 49'36 7°**∡**05'17 max. Earth dist. -2588 Jun 22 j 15:29 8°**Ⅲ**23'21 6.32780 AU -2582 Apr 16 j 14:07 retrograde -2588 Jul 05 j 23:47 11°**Ⅲ**19'28 -2582 Jun 16 j 11:54 morning rise opposition 2°**∡**08'21 0°-15'-41 -2588 Nov 04 j 16:27 28°**Ⅲ**42'22 -2582 Jun 16 j 17:24 retrograde min. Earth dist. 2°**尽**06'34 4.08659 AU -2587 Jan 03 j 11:49 23°**II**45'49 0°56'29 -2582 Jul 03 j 13:27 30°RML opposition min. Earth dist. -2587 Jan 03 j 17:40 23°**I**I43'54 4.36743 AU direct -2582 Aug 15 j 05:48 27°M 14'46 direct -2587 Mar 06 j 03:15 18°**耳**42'18 -2582 Sep 26 j 02:08 0°**∡**7 -2587 Jun 10 j 00:32 0ಂತಾ evening set -2582 Dec 17 j 14:37 16° ₹ 14'23 -2587 Jul 11 j 18:20 6°538'12 evening set conjunction -2582 Dec 30 j 12:45 19° ₹ 18'53 0°-33'00 -2587 Jul 24 j 23:05 9°530'50 0°56'03 -2582 Dec 30 j 12:43 19° **₹** 18'51 conjunction minimum elong -2587 Jul 24 j 23:02 9°530'48 0°56'07 max. Earth dist. -2582 Dec 30 j 17:31 19° ₹21'43 minimum elong 6.04226 AU -2587 Jul 24 j 03:17 9°\$\$20'00 -2581 Jan 12 j 13:30 22° ₹24'55 max. Earth dist. 6.39432 AU morning rise -2587 Aug 07 j 00:26 12°521'48 -2581 Feb 14 j 19:33 morning rise retrograde -2587 Dec 05 i 07:36 29°520'52 retrograde -2581 May 23 j 21:46 12°る30'42 opposition -2586 Feb 03 i 13:15 24°527'32 1°39'46 opposition -2581 Jul 23 i 08:39 7°る29'48 -1°-20'-6 min. Earth dist. -2586 Feb 04 i 09:11 24°521'05 4.40763 AU min. Earth dist. -2581 Jul 22 j 19:44 7°る34'05 4.01173 AU direct -2586 Apr 07 i 00:02 19°524'46 direct -2581 Sep 19 j 22:16 2°る36'31 -2586 Jul 08 j 16:50 evening set -2580 Jan 22 j 10:31 21°₹56'21 $0^{\circ}\Omega$ 7°Ω12'49 evening set -2586 Aug 12 j 07:32 max. Earth dist. -2586 Aug 23 j 13:39 9°**Ω**40'37 6.40395 AU -2580 Feb 04 j 15:58 25°る05'59 -1°-8'-8 conjunction -2580 Feb 04 j 15:55 25°る05'58 1°08'13 minimum elong -2586 Aug 25 j 03:33 $10^{\circ}\Omega01'25$ $1^{\circ}16'46$ conjunction max. Earth dist. -2580 Feb 05 j 23:44 25°る24'59 5.99767 AU minimum elong -2586 Aug 25 j 03:31 10°**Ω**01'25 1°16'50 morning rise -2580 Feb 18 j 00:41 28°る17'22 -2586 Sep 06 j 20:43 12°**Ω**48'39 morning rise -2580 Feb 25 j 06:31 0°≈ -2586 Sep 16 j 23:17 15°**Ω** -2580 May 10 j 21:04 15°≈ -2585 Jan 05 j 09:36 29°**Ω**49'52 -2580 Jun 29 j 07:39 18°≈41'56 retrograde retrograde -2585 Mar 07 j 00:30 24° Ω58'11 1°55'24 -2580 Aug 17 j 23:42 15°R≈ opposition min. Earth dist. -2585 Mar 08 j 06:48 $24^{\circ}\Omega 48'31$ 4.38732 AU min. Earth dist. -2580 Aug 27 j 02:40 13°≈46′59 4.00403 AU direct -2585 May 08 j 17:43 19° Ω 57'11 opposition -2580 Aug 28 j 05:42 13°≈37'51 -1°-55'-1 -2585 Aug 06 j 01:28 0°m direct -2580 Oct 25 j 04:49 8°**≈**42'45 evening set -2585 Sep 12 j 06:18 7° m 49'31 -2580 Dec 28 j 05:14 15°**≈** max. Earth dist. -2585 Sep 23 j 01:18 10° Mp 13'26 6.35425 AU evening set -2579 Feb 27 j 11:45 28°≈05'44 -2579 Mar 07 j 13:40 0°**)**€ -2585 Sep 24 j 20:56 10° mg 37'45 1°16'07 conjunction -2585 Sep 24 j 20:57 10° mg 37'46 1°16'07 -2579 Mar 13 j 00:31 1°**升**17'18 -1°-17'-31 minimum elong conjunction

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 29 Attention, astronomical year style is used: The year -2579 in astronomical counting style is the year 2580 BCE in historical counting style.

Attention, astronom	nical year style is used: Th	ne year -2579	in astronomical co	anting style is the year	2580 BCE in historical of	counting style.	
minimum elong	-2579 Mar 13 j 00:32	1° ∺ 17'19			-2574 Nov 17 j 00:19	0° m	
max. Earth dist.	-2579 Mar 14 j 22:41		6.02612 AU	retrograde	-2573 Jan 09 j 17:34	4° m 12'33	
morning rise	-2579 Mar 26 j 16:16	4°) (30′13			-2573 Mar 06 j 08:09	30°R Ω	
retrograde	-2579 Aug 04 j 10:10	24°) 30'13		opposition	-2573 Mar 11 j 11:02		1°55'02
min. Earth dist.	-2579 Oct 01 j 17:43		4.06615 AU	min. Earth dist.	-2573 Mar 12 j 17:12		4.38125 AU
opposition	-2579 Oct 03 j 00:06	19° ¥ 25′01	-1°-45'-40	direct	-2573 May 13 j 02:53		
direct	-2579 Nov 30 j 05:59	14°) (26'47			-2573 Jul 16 j 19:47	0°M)	
arraning gat	-2578 Mar 20 j 19:13 -2578 Apr 05 j 12:25	0° Υ 3° Υ 33'37		evening set max. Earth dist.	-2573 Sep 16 j 13:18		6 24451 ATT
evening set	-23/8 Apr 03 J 12.23	3 1333/		max. Earm dist.	-2573 Sep 27 j 06:59	14 IŲ 3 / 1 /	0.34431 AU
conjunction	-2578 Apr 19 j 06:33	6° Ƴ 43'30	0°-57'-53	conjunction	-2573 Sep 29 j 03:20	15° mp 02'05	1°14'12
minimum elong	-2578 Apr 19 j 06:37	6° Y 43'32	0°57'54	minimum elong		15° Mp 02'06	1°14'14
max. Earth dist.	-2578 Apr 21 j 03:27	7° Ƴ 09'21	6.11629 AU	morning rise	-2573 Oct 11 j 15:44	17° m 49'48	
morning rise	-2578 May 03 j 01:38	9° Ƴ 53'40			-2573 Dec 11 j 15:31	0∘ ⊽	
retrograde	-2578 Sep 07 j 15:35	28° Y 58'09		retrograde	-2572 Feb 11 j 05:31	5° ₽ 23'22	
min. Earth dist.	-2578 Nov 05 j 02:42	24° Y 02'23	4.17399 AU	opposition	-2572 Apr 12 j 05:06	0° ≏ 31′24	1°33'51
opposition	-2578 Nov 06 j 01:26	23° Y 54'39	0°-58'-55	min. Earth dist.	-2572 Apr 13 j 12:11		4.29811 AU
direct	-2577 Jan 04 j 07:30	18° Y 53′28			-2572 Apr 16 j 07:58		
	-2577 Apr 06 j 06:12	0°8		direct	-2572 Jun 13 j 08:21	25° m 33'20	
evening set	-2577 May 11 j 10:10	7° 8 32'58			-2572 Aug 08 j 06:12	0∘ ⊽	
				evening set	-2572 Oct 16 j 19:09		
conjunction	-2577 May 25 j 04:09	10° 8 37'47		max. Earth dist.	-2572 Oct 27 j 20:03	16° Ω 15'17	6.24247 AU
minimum elong	-2577 May 25 j 04:11	10° 8 37'48	0°18'47 6.23347 AU	:	2572 0-4 20 : 00.52	1.69 0 2.6122	0949127
max. Earth dist. morning rise	-2577 May 26 j 05:38 -2577 Jun 07 j 21:15	10° 8 52'04	6.23347 AU	conjunction minimum elong	-2572 Oct 29 j 08:53 -2572 Oct 29 j 08:55		0°48'36 0°48'34
morning rise	-2577 Jun 13 j 18:11			morning rise	-2572 Nov 10 j 22:16		0 46 34
	-2577 Sep 06 j 13:20	13 O		morning rise	-2572 Nov 10 j 22.10 -2572 Dec 30 j 15:44	0°M	
retrograde	-2577 Oct 09 j 21:56	1° ∏ 45'44		retrograde	-2572 Dec 30 j 13:44 -2571 Mar 16 j 11:42	7°M52'53	
asc. node	-2577 Nov 10 j 08:39	0° П 10'23		opposition	-2571 May 16 j 13:41		0°42'52
	-2577 Nov 12 j 02:37	30°R₩		min. Earth dist.	-2571 May 17 j 10:16	2°M52'17	4.18306 AU
opposition	-2577 Dec 08 j 11:32	26° 8 45'44	0°04'35		-2571 Jun 10 j 14:40		
min. Earth dist.	-2577 Dec 08 j 02:30	26° 8 48'45	4.28906 AU	direct	-2571 Jul 16 j 12:16		
direct	-2576 Feb 07 j 01:05	21° 8 42'38			-2571 Aug 21 j 00:57	0°M	
	-2576 Apr 26 j 03:03	Π $^{\circ}0$			-2571 Nov 11 j 01:03	15° ™	
evening set	-2576 Jun 13 j 15:36	9° Ⅱ 55'18		evening set	-2571 Nov 18 j 05:38	16° ™ 39'57	
C	-			C	-		
conjunction	-2576 Jun 27 j 03:53	12° Ⅲ 53'21		conjunction	-2571 Nov 30 j 22:41	19° M 38'40	0°06'47
conjunction minimum elong	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51	12° Д 53'21 12° Д 53'20	0°24'58	conjunction minimum elong	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42	19°M38'40 19°M38'41	0°06'47 0°06'44
conjunction minimum elong max. Earth dist.	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49	12° Д 53'21 12° Д 53'20 12° Д 53'51	0°24'58	conjunction minimum elong behind sun begin	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13	19°M.38'40 19°M.38'41 19°M.34'18	
conjunction minimum elong	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25	12°Д53'21 12°Д53'20 12°Д53'51 15°Д49'56	0°24'58	conjunction minimum elong behind sun begin behind sun end	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12	19°M.38'40 19°M.38'41 19°M.34'18 19°M.43'04	0°06'44
conjunction minimum elong max. Earth dist. morning rise	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41	12°П53'21 12°П53'20 12°П53'51 15°П49'56 0°Ф	0°24'58	conjunction minimum elong behind sun begin behind sun end max. Earth dist.	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17	19°M38'40 19°M38'41 19°M34'18 19°M43'04 19°M27'52	
conjunction minimum elong max. Earth dist.	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29	12°П53'21 12°П53'20 12°П53'51 15°П49'56 0°Э 3°Э08'23	0°24'58	conjunction minimum elong behind sun begin behind sun end	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14	19°M38'40 19°M38'41 19°M34'18 19°M43'04 19°M27'52 22°M38'22	0°06'44
conjunction minimum elong max. Earth dist. morning rise retrograde	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23	12°II53'21 12°II53'20 12°II53'51 15°II49'56 0°S 3°S08'23 30°RII	0°24'58 6.33807 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37	19°M38'40 19°M38'41 19°M34'18 19°M43'04 19°M27'52 22°M38'22 0° 🗷	0°06'44
conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09	12°П53'21 12°П53'20 12°П53'51 15°П49'56 0°© 3°©08'23 30°RП 28°П12'19	0°24'58 6.33807 AU 1°03'53	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02	19°M38'40 19°M38'41 19°M34'18 19°M27'52 22°M38'22 0°×7 2°×727'54	0°06'44
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35	12°П53'21 12°П53'20 12°П53'51 15°П49'56 0°Ф 3°Ф08'23 30°RП 28°П12'19 28°П09'53	0°24'58 6.33807 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30	19°M38'40 19°M38'41 19°M34'18 19°M43'04 19°M27'52 22°M38'22 0° 🛪 2° 🛪 27'54 12° 🛪 01'55	0°06'44 6.12493 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 Mar 10 j 14:59	12°П53'21 12°П53'20 12°П53'51 15°П49'56 0°Э 3°©08'23 30°RП 28°П12'19	0°24'58 6.33807 AU 1°03'53	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 13:13	19°M38'40 19°M38'41 19°M34'18 19°M27'52 22°M38'22 0°×7 2°×727'54	0°06'44
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° 5 3° 508'23 30° R II 28° II 12'19 28° II 09'53 23° II 08'50	0°24'58 6.33807 AU 1°03'53	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30	19°M.38'40 19°M.38'41 19°M.34'18 19°M.43'04 19°M.27'52 22°M.38'22 0° × 227'54 12° × 201'55 7° × 304'28	0°06'44 6.12493 AU 0°-25'-24
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 Mar 10 j 14:59 -2575 May 21 j 14:24	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° 5 3° 508'23 30° R II 28° II 12'19 28° II 09'53 23° II 08'50 0° 5 11° 502'56	0°24'58 6.33807 AU 1°03'53 4.37564 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist.	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 13:13 -2570 Jun 21 j 17:01	19°M.38'41 19°M.34'18 19°M.43'04 19°M.27'52 22°M.38'22 0° 🛪 ' 2° 🖈 '27'54 12° 🛪 '01'55 7° 🛪 '04'28 7° 🛪 '03'14 2° 🛪 '11'03	0°06'44 6.12493 AU 0°-25'-24
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 Mar 10 j 14:59 -2575 May 21 j 14:24 -2575 Jul 16 j 05:49	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° 5 3° 508'23 30° R II 28° II 12'19 28° II 09'53 23° II 08'50 0° 5 11° 502'56	0°24'58 6.33807 AU 1°03'53 4.37564 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 13:13 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23	19°M.38'41 19°M.34'18 19°M.43'04 19°M.27'52 22°M.38'22 0° 🛪 ' 2° 🖈 '27'54 12° 🛪 '01'55 7° 🛪 '04'28 7° 🛪 '03'14 2° 🛪 '11'03	0°06'44 6.12493 AU 0°-25'-24
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 Mar 10 j 14:59 -2575 Jul 16 j 05:49 -2575 Jul 28 j 09:34 -2575 Jul 29 j 09:08	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° 9 3° 908'23 30° RII 28° II 12'19 28° II 09'53 23° II 08'50 0° 9 11° 902'56 13° 941'54	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU 1°00'05	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:27	19°M38'40 19°M38'41 19°M43'04 19°M27'52 22°M38'22 0° 🛪 2° 🛪 27'54 12° 🛪 01'55 7° 🛪 04'28 7° 🛪 11'03 21° 🛪 14'48	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 Mar 10 j 14:59 -2575 Jul 16 j 05:49 -2575 Jul 28 j 09:34 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:08	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° 9 3° 908'23 30° RII 28° II 12'19 28° II 09'53 23° II 08'50 0° 9 11° 902'56 13° 941'54	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:27 -2569 Jan 04 j 10:24	19°M38'40 19°M38'41 19°M34'18 19°M43'04 19°M27'52 22°M38'22 0° 🛪 2° 🛪 27'54 12° 🛪 01'55 7° 🛪 04'28 7° 🛪 03'14 2° 🛪 11'03 21° 🛪 14'48	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56 0°39'01
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-2576 Jun 27 j 03:53 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 Mar 10 j 14:59 -2575 Jul 28 j 09:34 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:05 -2575 Aug 11 j 09:20	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° 9 3° 908'23 30° RII 28° II 12'19 28° II 09'53 23° II 08'50 0° 9 11° 902'56 13° 941'54 13° 954'47 13° 954'45 16° 945'02	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU 1°00'05	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:27 -2569 Jan 04 j 10:24 -2569 Jan 04 j 19:08	19°M.38'41 19°M.38'41 19°M.43'04 19°M.27'52 22°M.38'22 0° 🛪 2° 🛪 27'54 12° 🛪 01'55 7° 🛪 04'28 7° 🛪 03'14 2° 🛪 11'03 21° 🛪 14'48 24° 🛪 20'15 24° 🛪 20'14 24° 🛪 25'26	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-2576 Jun 27 j 03:53 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 Mar 10 j 14:59 -2575 Jul 16 j 05:49 -2575 Jul 28 j 09:34 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:05 -2575 Aug 11 j 09:20 -2575 Oct 20 j 14:51	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° 9 3° 908'23 30° R II 28° II 12'19 28° II 09'53 23° II 08'50 0° 9 11° 902'56 13° 954'47 13° 954'47 13° 954'45 16° 945'02 0° Ω	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU 1°00'05	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 17:01 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:27 -2569 Jan 04 j 10:24 -2569 Jan 04 j 19:08 -2569 Jan 17 j 12:20	19°M.38'41 19°M.38'41 19°M.43'04 19°M.27'52 22°M.38'22 0° 🛪 2° 🛪 27'54 12° 🛪 01'55 7° 🛪 04'28 7° 🛪 03'14 2° 🛪 11'03 21° 🛪 14'48 24° 🛪 20'15 24° 🛪 20'14 24° 🛪 25'26 27° 🛪 27'19	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56 0°39'01
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-2576 Jun 27 j 03:53 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jun 07 j 20:09 -2575 Jun 08 j 03:35 -2575 Mar 10 j 14:59 -2575 May 21 j 14:24 -2575 Jul 16 j 05:49 -2575 Jul 28 j 09:34 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:08 -2575 Aug 11 j 09:20 -2575 Oct 20 j 14:51 -2575 Dec 09 j 15:03	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° 9 3° 908'23 30° RII 28° II 12'19 28° II 09'53 23° II 08'50 0° 9 11° 902'56 13° 954'47 13° 954'45 16° 945'02 0° \(\Omega\) 3° \(\Omega\)	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU 1°00'05	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 13:13 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:27 -2569 Jan 04 j 10:24 -2569 Jan 04 j 19:08 -2569 Jan 17 j 12:20 -2569 Jan 28 j 08:01	19°M.38'40 19°M.38'41 19°M.43'04 19°M.27'52 22°M.38'22 0° × 2° × 27'54 12° × 301'55 7° × 304'28 7° × 303'14 2° × 11'03 21° × 14'48 24° × 20'15 24° × 20'14 24° × 25'26 27° × 27'19 0° S	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56 0°39'01
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-2576 Jun 27 j 03:53 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jun 07 j 20:09 -2575 Jun 08 j 03:35 -2575 Mar 10 j 14:59 -2575 May 21 j 14:24 -2575 Jul 16 j 05:49 -2575 Jul 28 j 09:34 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:08 -2575 Aug 11 j 09:20 -2575 Oct 20 j 14:51 -2575 Dec 09 j 15:03 -2574 Jan 29 j 16:46	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° 5 3° 508'23 30° R II 28° II 12'19 28° II 09'53 23° II 08'50 0° 5 11° 502'56 13° 54'47 13° 554'47 13° 554'45 16° 545'02 0° Ω 3° Ω 42'33 30° R 5	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU 1°00'05 1°00'09	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 17:01 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:24 -2569 Jan 04 j 10:24 -2569 Jan 04 j 19:08 -2569 Jan 17 j 12:20 -2569 Jan 28 j 08:01 -2569 May 29 j 03:34	19°M38'40 19°M38'41 19°M34'18 19°M43'04 19°M27'52 22°M38'22 0° √ 2°√27'54 12°√30'55 7°√304'28 7°√303'14 2°√11'03 21°√14'48 24°√20'15 24°√20'14 24°√25'26 27°√27'19 0° □17°□38'50	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56 0°39'01 6.03042 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 Mar 10 j 14:59 -2575 May 21 j 14:24 -2575 Jul 16 j 05:49 -2575 Jul 28 j 09:34 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:05 -2575 Aug 11 j 09:20 -2575 Dec 09 j 15:03 -2574 Jan 29 j 16:46 -2574 Feb 07 j 21:38	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° 5 3° 508'23 30° R II 28° II 12'19 28° II 09'53 23° II 08'50 0° 5 11° 502'56 13° 54'47 13° 554'47 13° 554'45 16° 545'02 0° Ω 3° Ω 42'33 30° R 5 28° 549'28	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU 1°00'05 1°00'09	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 17:01 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:24 -2569 Jan 04 j 10:24 -2569 Jan 17 j 12:20 -2569 Jan 28 j 08:01 -2569 May 29 j 03:34 -2569 Jul 28 j 12:22	19°M38'40 19°M38'41 19°M34'18 19°M43'04 19°M27'52 22°M38'22 0°\$\textstyle{2}\textst	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56 0°39'01 6.03042 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 Mar 10 j 14:59 -2575 May 21 j 14:24 -2575 Jul 16 j 05:49 -2575 Jul 28 j 09:34 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:05 -2575 Oct 20 j 14:51 -2575 Dec 09 j 15:03 -2574 Jan 29 j 16:46 -2574 Feb 07 j 21:38 -2574 Feb 08 j 19:39	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° G 3° G08'23 30° RII 28° II 12'19 28° II 09'53 23° II 08'50 0° G 11° G02'56 13° G41'54 13° G54'47 13° G54'47 13° G54'45 16° G45'02 0° \(\Omega\) 3° \(\Omega\) 3° \(\Omega\) 3° \(\Omega\) 28° \(\Omega\)	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU 1°00'05 1°00'09	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:27 -2569 Jan 04 j 10:24 -2569 Jan 04 j 19:08 -2569 Jan 28 j 08:01 -2569 May 29 j 03:34 -2569 Jul 28 j 12:22 -2569 Jul 27 j 20:47	19°M.38'40 19°M.38'41 19°M.34'18 19°M.43'04 19°M.27'52 22°M.38'22 0° 🛪 2° 🛪 27'54 12° 🛪 01'55 7° 🛪 04'28 7° 🛪 03'14 2° 🛪 11'03 21° 🛪 14'48 24° 🛪 20'15 24° 🛪 20'14 24° 🛪 25'26 27° 🛪 27'19 0° 🛪 17° 🛪 38'50 12° 🛪 37'31 12° 🛪 42'42	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56 0°39'01 6.03042 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 Mar 10 j 14:59 -2575 Jul 16 j 05:49 -2575 Jul 28 j 09:34 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:05 -2575 Oct 20 j 14:51 -2575 Dec 09 j 15:03 -2574 Jan 29 j 16:46 -2574 Feb 07 j 21:38 -2574 Feb 08 j 19:39 -2574 Apr 11 j 10:59	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° G 3° G08'23 30° RII 28° II 12'19 28° II 09'53 23° II 08'50 0° G 11° G02'56 13° G41'54 13° G54'47 13° G54'47 13° G54'45 16° G45'02 0° \(\text{0}\) 3° \(\text{0}\) 42'33 30° R 28° G42'22 23° G46'48	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU 1°00'05 1°00'09	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 17:01 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:27 -2569 Jan 04 j 10:24 -2569 Jan 04 j 19:08 -2569 Jan 17 j 12:20 -2569 May 29 j 03:34 -2569 Jul 28 j 12:22 -2569 Jul 27 j 20:47 -2569 Sep 24 j 22:07	19°M.38'40 19°M.38'41 19°M.34'18 19°M.43'04 19°M.27'52 22°M.38'22 0° 🛪 2° 🛪 '27'54 12° 🛪 '01'55 7° 🛪 '04'28 7° 🛪 '03'14 2° 🛪 '11'03 21° 🛪 '14'48 24° 🛪 '20'15 24° 🛪 '20'14 24° 🛪 '25'26 27° 🛪 '27'19 0° ጜ 17° ጜ38'50 12° ጜ37'31 12° ጜ42'42 7° ጜ44'11	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56 0°39'01 6.03042 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 May 21 j 14:24 -2575 Jul 16 j 05:49 -2575 Jul 28 j 09:34 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:05 -2575 Dec 09 j 15:03 -2574 Jan 29 j 16:46 -2574 Feb 07 j 21:38 -2574 Feb 08 j 19:39 -2574 Jun 18 j 22:42	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° G 3° G08'23 30° RII 28° II 12'19 28° II 09'53 23° II 08'50 0° G 11° G02'56 13° G41'54 13° G54'47 13° G54'47 13° G54'45 16° G45'02 0° Ω 3° Ω 42'33 30° RG 28° G49'28 28° G42'22 23° G46'48 0° Ω	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU 1°00'05 1°00'09	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:27 -2569 Jan 04 j 10:24 -2569 Jan 04 j 10:24 -2569 Jan 28 j 08:01 -2569 May 29 j 03:34 -2569 Jul 28 j 12:22 -2569 Jul 27 j 20:47 -2569 Sep 24 j 22:07 -2568 Jan 27 j 13:31	19°M38'40 19°M38'41 19°M43'04 19°M27'52 22°M38'22 0° 🛪 2° 🛪 27'54 12° 🛪 01'55 7° 🛪 04'28 7° 🛪 03'14 2° 🛪 11'03 21° 🛪 14'48 24° 🛪 20'15 24° 🛪 20'15 24° 🛪 20'14 24° 🛪 25'26 27° 🛪 27'19 0° 🛪 17° \38'50 12° \37'31 12° \34'11 27° \306'32	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56 0°39'01 6.03042 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 Mar 10 j 14:59 -2575 Jul 16 j 05:49 -2575 Jul 28 j 09:34 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:05 -2575 Jul 29 j 09:05 -2575 Dec 09 j 15:03 -2574 Jan 29 j 16:46 -2574 Feb 07 j 21:38 -2574 Feb 08 j 19:39 -2574 Jun 18 j 22:42 -2574 Aug 16 j 15:27	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° 9 3° 908'23 30° RII 28° II 12'19 28° II 09'53 23° II 08'50 0° 9 11° 902'56 13° 941'54 13° 954'47 13° 954'47 13° 954'45 16° 945'02 0° \(\Omega\) 3° \(\Omega\) 3° \(\Omega\) 28° \(\	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU 1°00'05 1°00'09	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 17:01 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:27 -2569 Jan 04 j 10:24 -2569 Jan 04 j 19:08 -2569 Jan 17 j 12:20 -2569 May 29 j 03:34 -2569 Jul 28 j 12:22 -2569 Jul 27 j 20:47 -2569 Sep 24 j 22:07	19°M.38'40 19°M.38'41 19°M.34'18 19°M.43'04 19°M.27'52 22°M.38'22 0° 🛪 2° 🛪 '27'54 12° 🛪 '01'55 7° 🛪 '04'28 7° 🛪 '03'14 2° 🛪 '11'03 21° 🛪 '14'48 24° 🛪 '20'15 24° 🛪 '20'14 24° 🛪 '25'26 27° 🛪 '27'19 0° ጜ 17° ጜ38'50 12° ጜ37'31 12° ጜ42'42 7° ጜ44'11	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56 0°39'01 6.03042 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 May 21 j 14:24 -2575 Jul 16 j 05:49 -2575 Jul 28 j 09:34 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:05 -2575 Dec 09 j 15:03 -2574 Jan 29 j 16:46 -2574 Feb 07 j 21:38 -2574 Feb 08 j 19:39 -2574 Jun 18 j 22:42	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° 9 3° 908'23 30° RII 28° II 12'19 28° II 09'53 23° II 08'50 0° 9 11° 902'56 13° 941'54 13° 954'47 13° 954'47 13° 954'45 16° 945'02 0° \(\Omega\) 3° \(\Omega\) 3° \(\Omega\) 28° \(\	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU 1°00'05 1°00'09	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:27 -2569 Jan 04 j 10:24 -2569 Jan 04 j 10:24 -2569 Jan 17 j 12:20 -2569 Jan 28 j 08:01 -2569 Jan 28 j 08:01 -2569 Jan 28 j 03:34 -2569 Jul 28 j 12:22 -2569 Jul 27 j 20:47 -2569 Sep 24 j 22:07 -2568 Feb 08 j 16:00	19°M38'40 19°M38'41 19°M34'18 19°M43'04 19°M27'52 22°M38'22 0° 🛪 2° 🛪 27'54 12° 🛪 01'55 7° 🛪 04'28 7° 🛪 11'03 21° 🛪 11'448 24° 🛪 20'15 24° 🛪 20'15 24° 🛪 20'14 24° 🛪 25'26 27° 🛪 27'19 0° ♂ 17° ♂ 38'50 12° ♂ 37'31 12° ♂ 44'11 27° ♂ 66'32 0° ≈	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56 0°39'01 6.03042 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 Mar 10 j 14:59 -2575 Jul 16 j 05:49 -2575 Jul 28 j 09:34 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:05 -2575 Jul 29 j 09:05 -2575 Dec 09 j 15:03 -2574 Jan 29 j 16:46 -2574 Feb 07 j 21:38 -2574 Feb 08 j 19:39 -2574 Jun 18 j 22:42 -2574 Aug 16 j 15:27	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° 9 3° 908'23 30° RII 28° II 12'19 28° II 09'53 23° II 08'50 0° 9 11° 902'56 13° 954'47 13° 954'47 13° 954'45 16° 945'02 0° Ω 3° Ω 42'33 30° R9 28° 949'28 28° 949'28 28° 946'48 0° Ω 11° Ω 34'20 14° Ω 01'40	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU 1°00'05 1°00'09	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:27 -2569 Jan 04 j 10:24 -2569 Jan 04 j 10:24 -2569 Jan 28 j 08:01 -2569 May 29 j 03:34 -2569 Jul 28 j 12:22 -2569 Jul 27 j 20:47 -2569 Sep 24 j 22:07 -2568 Jan 27 j 13:31	19°M38'40 19°M38'41 19°M34'18 19°M43'04 19°M27'52 22°M38'22 0° ✗ 2° ✗27'54 12° ✗01'55 7° і √304'28 7° і √303'14 2° і √311'03 21° і √314'48 24° і √320'15 24° і √320'16 24° і √325'26 27° і √327'19 0° ї √338'50 12° ї √342'42 7° ї √344'11 27° ї √36'32 0° ≈ 0° ≈16'43	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56 0°39'01 6.03042 AU -1°-27'-16 4.00437 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-2576 Jun 27 j 03:53 -2576 Jun 27 j 03:51 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 Mar 10 j 14:59 -2575 Jul 16 j 05:49 -2575 Jul 28 j 09:34 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:05 -2575 Dec 09 j 15:03 -2574 Jan 29 j 16:46 -2574 Feb 07 j 21:38 -2574 Apr 11 j 10:59 -2574 Aug 16 j 15:27 -2574 Aug 16 j 15:27 -2574 Aug 27 j 20:30	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° 9 3° 908'23 30° RII 28° II 12'19 28° II 09'53 23° II 08'50 0° 9 11° 902'56 13° 954'47 13° 954'47 13° 954'45 16° 945'02 0° Ω 3° Ω 42'33 30° R9 28° 949'28 28° 949'28 28° 949'28 28° 949'28 21° Ω 34'20 11° Ω 34'20 14° Ω 01'40	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU 1°00'05 1°00'09 1°43'44 4.40937 AU 6.40178 AU 1°18'01	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction conjunction	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:27 -2569 Jan 04 j 10:24 -2569 Jan 04 j 10:24 -2569 Jan 17 j 12:20 -2569 Jan 28 j 08:01 -2569 Jan 28 j 08:01 -2569 Jul 28 j 12:22 -2569 Jul 27 j 20:47 -2569 Sep 24 j 22:07 -2568 Feb 08 j 16:00 -2568 Feb 09 j 19:57	19°M38'40 19°M38'41 19°M34'18 19°M43'04 19°M27'52 22°M38'22 0° ✗ 2° ✗27'54 12° ✗01'55 7° і √304'28 7° і √303'14 2° і √311'03 21° і √314'48 24° і √320'15 24° і √320'16 24° і √325'26 27° і √327'19 0° ї √338'50 12° ї √342'42 7° ї √344'11 27° ї √36'32 0° ≈ 0° ≈16'43	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56 0°39'01 6.03042 AU -1°-27'-16 4.00437 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-2576 Jun 27 j 03:53 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 Mar 10 j 14:59 -2575 Jul 16 j 05:49 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:05 -2575 Dec 09 j 15:03 -2574 Jan 29 j 16:46 -2574 Feb 07 j 21:38 -2574 Apr 11 j 10:59 -2574 Aug 16 j 15:27 -2574 Aug 27 j 20:30 -2574 Aug 29 j 10:37	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° 9 3° 908'23 30° RII 28° II 12'19 28° II 09'53 23° II 08'50 0° 9 11° 902'56 13° 954'47 13° 954'45 16° 945'02 0° \(\Omega\) 3° \(\Omega\) 45' \(\Omega\) 28° 949'28 28° 949'28 28° 949'28 28° 949'28 28° 949'28 21° \(\Omega\) 11° \(\Omega\)	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU 1°00'05 1°00'09 1°43'44 4.40937 AU 6.40178 AU 1°18'01	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min. Earth dist. direct evening set	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:27 -2569 Jan 04 j 10:24 -2569 Jan 04 j 10:24 -2569 Jan 28 j 08:01 -2569 Jan 28 j 08:01 -2569 Jan 28 j 08:01 -2569 Jan 28 j 03:34 -2569 Jul 28 j 12:22 -2569 Jul 27 j 20:47 -2569 Sep 24 j 22:07 -2568 Feb 08 j 16:00 -2568 Feb 09 j 19:57 -2568 Feb 09 j 19:57	19°M38'40 19°M38'41 19°M34'18 19°M43'04 19°M27'52 22°M38'22 0°メ 2°メ27'54 12°メ701'55 7°メ704'28 7°メ703'14 2°メ11'03 21°メ714'48 24°メ720'15 24° ス44'41	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56 0°39'01 6.03042 AU -1°-27'-16 4.00437 AU -1°-11'-12 1°11'17
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-2576 Jun 27 j 03:53 -2576 Jun 27 j 04:49 -2576 Jul 10 j 13:25 -2576 Sep 24 j 11:41 -2576 Nov 08 j 23:29 -2576 Dec 24 j 20:23 -2575 Jan 07 j 20:09 -2575 Jan 08 j 03:35 -2575 Mar 10 j 14:59 -2575 Jul 16 j 05:49 -2575 Jul 28 j 09:34 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:08 -2575 Jul 29 j 09:05 -2575 Jul 29 j 09:05 -2575 Dec 09 j 15:03 -2574 Jan 29 j 16:46 -2574 Feb 08 j 19:39 -2574 Aug 16 j 15:27 -2574 Aug 29 j 10:37 -2574 Aug 29 j 10:37 -2574 Aug 29 j 10:36	12° II 53'21 12° II 53'20 12° II 53'51 15° II 49'56 0° \$\otimes 3\circ \text{300} \text{81} 28° II 12'19 28° II 09'53 23° II 08'50 0° \$\otimes 11\circ \text{302} \text{54} 13\circ \text{54}'47 13\circ \text{54}'45 16\circ \text{54}'54 13\circ \text{54}'47 13\circ \text{54}'45 16\circ \text{54}'20 0° \text{\$\Otimes 11} \text{\$\circ \text{301}} \text{30} \text{\$\circ \text{80}} \text{21} 28\circ \text{34}'23 30\circ \text{80} 28\circ \text{34}'22 23\circ \text{34}'22 23\circ \text{34}'46'48 0° \text{\$\Otimes 11}^\text{\$\Otimes 12}'20 14\circ \text{\$\Otimes 01}'40 14\circ \text{\$\Otimes 22'37} 15\circ \text{\$\Otimes 1}	0°24'58 6.33807 AU 1°03'53 4.37564 AU 6.39945 AU 1°00'05 1°00'09 1°43'44 4.40937 AU 6.40178 AU 1°18'01	conjunction minimum elong behind sun begin behind sun end max. Earth dist. morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct evening set	-2571 Nov 30 j 22:41 -2571 Nov 30 j 22:42 -2571 Nov 30 j 15:13 -2571 Dec 01 j 06:12 -2571 Nov 30 j 04:17 -2571 Dec 13 j 17:14 -2570 Jan 15 j 10:37 -2570 Jan 27 j 10:02 -2570 Apr 21 j 17:30 -2570 Jun 21 j 17:01 -2570 Jun 21 j 17:01 -2570 Aug 20 j 03:23 -2570 Dec 22 j 11:17 -2569 Jan 04 j 10:27 -2569 Jan 04 j 10:24 -2569 Jan 04 j 10:24 -2569 Jan 04 j 19:08 -2569 Jan 28 j 08:01 -2569 Jan 28 j 08:01 -2569 Jan 28 j 08:01 -2569 Jul 28 j 12:22 -2569 Jul 27 j 20:47 -2569 Sep 24 j 22:07 -2568 Feb 09 j 19:57 -2568 Feb 09 j 19:57 -2568 Feb 09 j 19:54 -2568 Feb 09 j 19:54 -2568 Feb 09 j 19:54	19°M.38'40 19°M.38'41 19°M.34'18 19°M.43'04 19°M.27'52 22°M.38'22 0° × 2° × 27'54 12° × 30'155 7° × 304'28 7° × 30'14 2° × 11'03 21° × 14'48 24° × 20'15 24° × 20'14 24° × 325'26 27° × 37'31 12° × 38'50 12° × 37'31 12° × 36'51 2° × 36'51 3° × 28'41	0°06'44 6.12493 AU 0°-25'-24 4.07182 AU 0°-38'-56 0°39'01 6.03042 AU -1°-27'-16 4.00437 AU -1°-11'-12 1°11'17

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2568 in astronomical counting style is the year 2569 BCE in historical counting style. -2568 Jul 04 i 10:38 23°≈53'16 -2563 Sep 28 i 17:55 $0^{\circ}\Omega$ retrograde -2568 Sep 01 j 03:17 18°≈58'34 4.00722 AU -2563 Dec 13 j 18:14 7°**Ω**55'27 min. Earth dist. retrograde -2568 Sep 02 j 07:52 18°≈48'53 -1°-56'-26 -2562 Feb 12 j 02:41 3°**Ω**02'40 1°46'59 opposition opposition min. Earth dist. -2562 Feb 13 j 02:36 -2568 Oct 04 j 17:24 2°**Ω**54'59 4.41124 AU 15°R≈ direct -2568 Oct 30 j 06:33 -2562 Mar 09 j 13:34 30°RS 13°≈53'26 -2562 Apr 15 j 17:27 28°900'10 -2568 Nov 24 j 21:01 15°≈ direct -2562 May 23 j 01:24 -2567 Feb 18 j 15:24 0°**)** 0 $^{\circ}\Omega$ evening set -2567 Mar 04 j 17:07 3°**光**15′53 -2562 Aug 17 j 04:47 15°**Ω** evening set -2562 Aug 20 j 19:31 15°**Ω**47'12 conjunction -2567 Mar 18 j 07:02 6°**)** €27'31 -1°-16'-24 max. Earth dist. -2562 Aug 31 j 19:45 18°**Ω**12'10 6.39779 AU minimum elong -2567 Mar 18 j 07:03 6°**升**27'32 1°16'26 -2567 Mar 20 j 07:59 -2562 Sep 02 j 13:38 18° **Q**35'14 1°18'46 max. Earth dist. 6°**¥**56'21 6.03493 AU conjunction -2562 Sep 02 j 13:37 $18^{\circ}\Omega$ 35'13 morning rise -2567 Mar 31 j 23:23 9°**)** 40'19 minimum elong 1°18'48 -2562 Sep 15 j 05:07 21°**Ω**22'00 retrograde -2567 Aug 09 j 09:21 29°**)** 34'01 morning rise opposition -2567 Oct 07 j 21:35 24°**¥**28'57 -1°-40'-57 -2562 Oct 26 j 23:10 0° m min. Earth dist. -2567 Oct 06 j 15:43 24° ★39'09 4.07975 AU retrograde -2561 Jan 14 j 01:16 8° m 27'47 direct -2567 Dec 05 j 06:23 19° **∺** 30'20 opposition -2561 Mar 15 j 18:49 3° Mp 36'12 1°54'03 -2566 Mar 02 j 11:31 $0^{\circ}\Upsilon$ min. Earth dist. -2561 Mar 17 j 02:48 3° Mg 26'00 4.37163 AU evening set -2566 Apr 10 j 15:19 8°Y33'17 -2561 Apr 16 j 11:07 30°RΩ direct -2561 May 17 j 10:12 $28^{\circ}\Omega$ 35'43 conjunction -2566 Apr 24 j 09:39 11°Υ42'31 0°-53'-16 -2561 Jun 17 j 09:33 0°m minimum elong -2566 Apr 24 i 09:43 11°**Y**42'33 0°53'15 evening set -2561 Sep 20 i 17:28 16° m 31'29 max. Earth dist. $-2566 \text{ Apr } 26 \text{ j } 04:55 \quad 12^{\circ} \Upsilon 07'20$ 6.13366 AU max. Earth dist. -2561 Oct 01 j 11:25 18° mp 55'41 6.32999 AU morning rise -2566 May 08 i 04:56 14° Υ 51'57 -2566 Jul 24 j 10:26 0°8 conjunction -2561 Oct 03 j 07:25 19° m 20'22 1°11'57 -2566 Sep 12 j 05:01 3°**8**46'49 -2561 Oct 03 j 07:27 19° m 20'23 1°11'58 retrograde minimum elong -2566 Nov 01 j 05:14 30°R℃ -2561 Oct 15 j 19:35 22° m 08'36 morning rise -2566 Nov 10 j 16:22 28°**Υ**'43'40 0°-50'-33 -2561 Nov 21 j 16:30 0∘**⊽** opposition -2566 Nov 09 j 18:13 28°**Υ**'51'11 4.19340 AU -2560 Feb 15 j 17:57 9°**£**49'05 min. Earth dist. retrograde -2565 Jan 09 j 02:40 23°**Y**42'06 -2560 Apr 16 j 18:22 4°**£**56'56 1°28'32 direct opposition -2565 Mar 16 j 14:49 0°**8** -2560 Apr 18 j 00:37 4°**2**47'19 4.27953 AU min. Earth dist. -2565 May 16 j 06:52 12°**8**16'15 -2560 Jun 14 j 20:11 30°R M evening set -2560 Jun 17 j 17:05 29° **m** 59'14 -2565 May 28 j 12:35 15°**8** direct -2560 Jun 20 j 14:04 0∘**⊽** -2565 May 30 j 00:19 15°**8**19'58 0°-12'-42 -2560 Oct 21 j 03:21 18°**£**14'42 conjunction evening set -2565 May 30 j 00:20 15°**8**19'59 0°12'40 max. Earth dist. -2560 Nov 01 j 05:21 20°**2**47'20 minimum elong 6.22135 AU -2565 May 29 j 19:14 15°**8**17'08 behind sun begin behind sun end -2565 May 30 j 05:26 15°**8**22'49 conjunction -2560 Nov 02 j 17:18 21°**£**08'02 0°43'39 max. Earth dist. -2565 May 30 j 23:12 15°**8**32'45 6.25355 AU minimum elong -2560 Nov 02 j 17:21 21°**೨**08'03 morning rise -2565 Jun 12 j 16:27 18°**8**22'49 morning rise -2560 Nov 15 j 07:22 24°**♀**01'37 -2565 Aug 09 j 03:00 0°**Ⅱ** -2560 Dec 12 j 03:33 0°M -2565 Sep 21 j 05:31 5°**Ⅱ**26'19 -2559 Mar 21 j 10:45 12°M35'43 asc. node retrograde -2565 Oct 14 j 06:44 6°**Ⅱ**17'35 -2559 May 21 j 10:34 7° ML41'17 0°34'06 retrograde opposition -2565 Dec 12 j 20:40 1°**I**18'08 0°13'23 min. Earth dist. -2559 May 22 j 05:54 7°M-35'04 4.16074 AU opposition min. Earth dist. -2565 Dec 12 j 14:16 1°**П**20'16 4.30793 AU -2559 Jul 21 j 04:50 2°M46'16 direct -2565 Dec 22 j 17:18 30°R& -2559 Oct 25 i 06:31 15°M -2564 Feb 11 i 15:51 26° 814'53 direct evening set -2559 Nov 22 j 20:49 21°M28'44 -2564 Apr 02 j 17:28 $\Pi^{\circ}0$ -2564 Jun 18 i 05:06 14°**Ⅲ**22'36 -2559 Dec 05 i 14:49 24° ML 28'45 0°00'18 evening set conjunction minimum elong -2559 Dec 05 i 14:49 24°ML28'45 0°00'14 conjunction -2564 Jul 01 i 16:09 17° II 19'28 0°30'25 behind sun begin -2559 Dec 05 j 06:50 24°M24'04 -2564 Jul 01 j 16:07 17°**II**19'27 0°30'29 behind sun end -2559 Dec 05 j 22:48 24° M 33'26 minimum elong -2564 Jul 01 j 12:55 17°**II**17'42 6.35409 AU max. Earth dist. -2559 Dec 05 j 00:19 24°M20'12 6.10359 AU max. Earth dist. morning rise -2564 Jul 15 j 00:26 20° **1**14'52 desc. node -2559 Dec 08 j 00:58 25° M 03'03 -2564 Sep 01 j 00:05 0.00 morning rise -2559 Dec 18 j 10:19 27° M29'49 -2559 Dec 29 j 04:46 retrograde -2564 Nov 13 j 02:59 7°**©**27'22 0°**∡**¹ opposition -2563 Jan 12 j 01:41 2°531'43 1°10'37 retrograde -2558 Apr 26 j 22:27 17°**尽**03'28 min. Earth dist. -2563 Jan 12 j 11:18 2°528'34 4.38783 AU -2558 Jun 26 j 16:35 12°**尽** 05'32 0°-35'-3 opposition -2563 Feb 01 j 08:00 30°RⅡ min. Earth dist. -2558 Jun 26 j 17:06 12°**尽** 05'22 4.05363 AU -2563 Mar 14 j 23:56 27°**Ⅲ**28'10 -2558 Aug 25 j 00:54 direct direct 7°**∡**12'19 -2558 Dec 27 j 11:11 26° ₹ 21'23 -2563 Apr 26 j 00:41 0ಂತಾ evening set evening set -2563 Jul 20 j 13:05 15°519'14 conjunction -2557 Jan 09 j 11:16 29° ₹727'53 0°-44'-39 conjunction -2563 Aug 02 j 15:13 18°9510'16 1°03'36 minimum elong -2557 Jan 09 j 11:13 29° ₹27'51 0°44'44 minimum elong -2563 Aug 02 j 15:10 18°510'14 1°03'41 max. Earth dist. -2557 Jan 09 j 23:34 29°**尽** 35'14 6.01691 AU -2563 Aug 01 j 13:31 17°556'13 -2557 Jan 11 j 16:55 0°정 max. Earth dist. 6.40670 AU -2563 Aug 15 j 14:01 20°559'41 -2557 Jan 22 j 14:25 2°る36'04 morning rise morning rise

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2557 in astronomical counting style is the year 2558 BCE in historical counting style. -2557 Jun 03 j 11:36 22°る53'32 min. Earth dist. -2551 Jan 16 j 22:03 6°951'51 4.39557 AU retrograde -2557 Aug 02 j 18:37 17°る51'37 -1°-33'-51 -2551 Mar 19 j 11:19 1°952'32 opposition direct min. Earth dist. -2557 Aug 01 j 23:49 17°る57'54 3.99719 AU -2551 Jul 24 j 22:50 19°542'08 evening set -2557 Sep 30 j 01:25 12°る58'04 direct -2556 Jan 22 j 17:52 conjunction -2551 Aug 06 j 23:43 22°532'33 1°06'56 minimum elong -2556 Feb 01 j 19:25 evening set 2°≈22'33 -2551 Aug 06 j 23:41 22°532'32 1°06'59 max. Earth dist. -2551 Aug 05 j 18:14 22°516'27 6.40936 AU -2556 Feb 15 j 03:07 -2551 Aug 19 j 21:23 25°521'24 conjunction 5°≈33'17 -1°-13'-44 morning rise minimum elong -2556 Feb 15 j 03:05 5°≈33'16 1°13'48 -2551 Sep 10 j 17:47 $0^{\circ}\Omega$ max. Earth dist. -2556 Feb 16 j 18:06 5°**≈**56'35 5.99496 AU retrograde -2551 Dec 18 j 01:39 $12^{\circ}\Omega$ 17'05 morning rise -2556 Feb 28 j 13:57 8°**≈**45'41 opposition -2550 Feb 16 j 11:14 7°**Ω**24'35 1°49'51 -2550 Feb 17 j 12:41 -2556 Mar 26 j 15:00 15°**≈** min. Earth dist. 7°**Ω**16′24 4.40901 AU -2550 Apr 20 j 02:14 retrograde -2556 Jul 09 j 16:58 29°≈08'40 direct 2°**£**22′17 min. Earth dist. -2556 Sep 06 j 06:31 24°≈13'57 4.01375 AU -2550 Jul 31 j 20:44 15°**Ω** opposition -2556 Sep 07 j 11:57 24°≈03'57 -1°-56'-53 evening set -2550 Aug 25 j 03:06 20°**Ω**10'08 direct -2556 Nov 04 j 10:52 19°≈08'07 max. Earth dist. -2550 Sep 05 j 02:32 22°**Q**34'56 6.39080 AU -2555 Jan 31 j 04:34 0°**)**€ evening set -2555 Mar 10 j 00:10 8°**)**€28'24 conjunction -2550 Sep 06 j 20:31 22° **Ω**58'06 1°19'10 minimum elong -2550 Sep $06 \text{ j } 20:30 \quad 22^{\circ} \Omega 58'06$ conjunction -2555 Mar 23 j 14:47 11° **★** 39'50 -1°-14'-38 morning rise -2550 Sep 19 j 11:09 $25^{\circ}\Omega 44'52$ minimum elong -2555 Mar 23 j 14:49 11°**)** € 39'51 -2550 Oct 09 j 04:57 max. Earth dist. -2555 Mar 25 i 16:00 12° ¥ 08'42 6.04716 AU retrograde -2549 Jan 18 j 12:44 12° m 54'26 morning rise -2555 Apr 06 i 07:56 14° + 52'21 opposition -2549 Mar 20 j 07:14 8° m 02'57 1°52'25 -2555 Jun 19 i 17:32 $0^{\circ}\Upsilon$ min. Earth dist. -2549 Mar 21 i 15:43 7° m 52'37 4.36033 AU retrograde -2555 Aug 14 j 06:18 4°**Y**38′05 direct -2549 May 21 j 20:51 3° m 02'53 -2555 Oct 09 j 12:21 30°R € -2549 Sep 25 j 01:56 21° mp 01'19 evening set opposition -2555 Oct 12 j 19:13 29° ★33'05 -1°-35'-26 max. Earth dist. -2549 Oct 05 j 18:40 23° m 25'25 6.31522 AU -2555 Oct 11 j 12:53 29°**)** 43'27 min. Earth dist. 4.09608 AU -2555 Dec 10 j 06:33 24° **₭** 34'00 -2549 Oct 07 j 15:31 23° m 50'41 1°09'10 direct conjunction -2554 Feb 08 j 09:49 0°**℃** -2549 Oct 07 j 15:34 23° m 50'42 1°09'10 minimum elong -2554 Apr 15 j 18:29 13°**Y**32'19 morning rise -2549 Oct 20 j 03:52 26° m 39'34 evening set -2549 Nov 04 j 06:19 0°**♀** -2554 Apr 29 j 13:00 16°**Υ**'40'48 0°-48'-13 -2548 Feb 20 j 12:47 14°**2**27'13 conjunction retrograde -2554 Apr 29 j 13:04 16°**Υ**40'49 0°48'13 -2548 Apr 21 j 12:45 9°**♀**34'51 1°22'25 minimum elong opposition -2554 May 01 j 06:03 17°**Υ**'04'14 6.15257 AU -2548 Apr 22 j 18:13 9°**2**25'28 4.26219 AU max. Earth dist. min. Earth dist. -2554 May 13 j 08:04 19°**Y**49'18 -2548 Jun 22 j 07:58 4°**£**37'33 morning rise direct -2554 Jun 30 j 07:46 0°**8** -2548 Oct 25 j 15:38 22°**£**57'06 evening set retrograde -2554 Sep 16 j 20:37 8°**8**34'24 max. Earth dist. -2548 Nov 05 j 21:42 25°**♀**32'38 6.20326 AU min. Earth dist. -2554 Nov 14 j 11:50 3°**8**38'18 4.21268 AU -2554 Nov 15 j 07:14 3°**8**31'43 0°-41'-48 conjunction -2548 Nov 07 j 06:09 25°**£**51'23 0°38'12 opposition -2554 Dec 14 j 08:51 30°R℃ minimum elong -2548 Nov 07 j 06:11 25°**♀**51'25 -2553 Jan 13 j 23:13 28°**Y**29'52 -2548 Nov 19 j 20:41 28°**△**45'59 direct morning rise -2553 Feb 13 j 21:46 0°8 -2548 Nov 25 j 06:02 0°M -2553 May 12 j 02:48 15°8 -2547 Feb 13 j 18:55 15° ML -2553 May 21 j 03:33 16°859'07 -2547 Mar 26 j 11:19 17° M28'51 evening set retrograde -2547 May 06 j 14:56 15°RML -2553 Jun 03 j 20:24 20°801'48 0°-6'-29 conjunction opposition -2547 May 26 j 11:07 12°M 34'02 0°24'45 -2553 Jun 03 j 20:25 20°**8**01'49 minimum elong 0°06'27 min. Earth dist. -2547 May 27 i 03:52 12° ML 28'39 4.14346 AU -2553 Jun 03 j 12:37 19°857'30 behind sun begin direct -2547 Jul 26 i 00:22 7°M39'27 behind sun end -2553 Jun 04 i 04:13 20°806'08 -2547 Oct 05 i 14:41 15°M -2553 Jun 04 j 16:09 20°8 12'48 6.27167 AU desc. node -2547 Oct 17 j 10:46 17° ML17'37 max. Earth dist. -2553 Jun 17 j 11:38 23°**8**03'31 -2547 Nov 27 j 15:25 26°M26'05 morning rise evening set -2553 Jul 20 j 02:11 Π °0 asc. node -2553 Jul 31 j 22:47 2°**Ⅲ**18'34 conjunction -2547 Dec 10 j 10:01 29°M27'03 0°-6'-23 retrograde -2553 Oct 18 j 14:38 10° **II** 50'28 minimum elong -2547 Dec 10 j 10:01 29°M27'02 0°06'28 opposition -2553 Dec 17 j 06:28 5°II51'35 0°22'12 behind sun begin -2547 Dec 10 j 02:25 29°M22'34 5°**Ⅱ**53'11 min. Earth dist. -2553 Dec 17 j 01:40 4.32357 AU behind sun end -2547 Dec 10 j 17:36 29°M31'30 -2552 Feb 16 j 04:57 0°**Ⅱ**48'14 -2547 Dec 09 j 22:33 29°M20'16 6.08883 AU direct max. Earth dist. -2552 Jun 22 j 19:26 18°**Ⅲ**52'28 -2547 Dec 12 j 17:43 evening set 0°**⊼** morning rise -2547 Dec 23 j 06:38 2°**х** 29′13 -2552 Jul 06 j 05:14 21°**II**48'21 0°35'53 conjunction retrograde -2546 May 02 j 04:15 22° ₹ 10'18 minimum elong -2552 Jul 06 j 05:11 21°**I**I48'19 0°35'57 opposition -2546 Jul 01 j 21:29 17° **₹** 11'46 0°-44'-36 max. Earth dist. -2552 Jul 05 j 22:07 21°**II**44'27 6.36610 AU min. Earth dist. -2546 Jul 01 j 18:29 17°**х** 12'44 4.04294 AU morning rise -2552 Jul 19 j 12:11 24°**1**42'43 direct -2546 Aug 30 j 01:56 12°**尽** 18'36 -2552 Aug 13 j 10:32 0 \circ \odot -2546 Dec 26 j 03:29 0°ಕ -2552 Nov 17 j 10:21 11°551'04 -2545 Jan 01 j 11:39 1°る30'09 retrograde evening set

-2551 Jan 16 j 09:27

opposition

6°955'58 1°17'11

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2545 in astronomical counting style is the year 2546 BCE in historical counting style. -2545 Jan 14 j 12:52 4°る37'20 0°-50'-4 morning rise -2540 Jul 23 j 22:08 29°**Ⅲ**05'50 conjunction -2545 Jan 14 j 12:49 4°₹37'18 0°50'08 -2540 Jul 28 j 02:03 minimum elong 000 -2545 Jan 15 j 07:06 4°₹48'14 -2540 Nov 21 j 15:22 16°511'43 max. Earth dist. 6.01137 AU retrograde -2545 Jan 27 j 16:56 7°**ප**46'10 -2539 Jan 20 j 16:21 11°5517'03 opposition 1°23'14 morning rise -2545 Jun 08 j 18:38 28°**⋜**06'03 -2539 Jan 21 j 06:17 11°512'31 retrograde min. Earth dist. 4.39845 AU -2545 Aug 07 j 23:33 -2539 Mar 23 j 19:15 opposition 23°**る**03'36 -1°-39'-35 direct 6°9513'44 min. Earth dist. -2545 Aug 07 j 03:04 23°**る**10'27 3.99765 AU evening set -2539 Jul 29 j 07:54 24°503'19 -2545 Oct 05 j 04:35 18°**⋜**09'51 direct max. Earth dist. -2539 Aug 09 j 23:55 26°535'59 6.40782 AU -2544 Jan 04 j 23:23 0°≈ evening set -2544 Feb 06 j 23:38 7°≈33'43 conjunction -2539 Aug 11 j 07:37 26°553'19 1°09'50 minimum elong -2539 Aug 11 j 07:34 26°553'18 1°09'53 -2544 Feb 20 j 08:09 10°≈44'33 -1°-15'-39 -2539 Aug 24 j 04:11 29°5541'47 conjunction morning rise -2544 Feb 20 j 08:08 10°≈44'32 -2539 Aug 25 j 13:45 minimum elong 1°15'42 $0^{\circ}\Omega$ max. Earth dist. -2544 Feb 22 j 00:48 11°**≈**08'47 6.00098 AU -2539 Nov 19 j 16:40 15°**Ω** morning rise -2544 Mar 04 j 20:04 13°≈57'04 retrograde -2539 Dec 22 j 10:52 16°**Ω**38'46 -2544 Mar 09 j 06:52 15°≈ -2538 Jan 24 j 06:56 15°R**Ω** -2544 May 22 j 12:22 0°**)**€ opposition -2538 Feb 20 j 20:38 11°**Ω**46'34 1°52'04 retrograde -2544 Jul 14 j 16:36 4°**)** 15'44 min. Earth dist. -2538 Feb 22 j 00:01 11°**Ω**37'47 4.40335 AU -2544 Sep 06 j 10:41 30°R≈ direct -2538 Apr 24 j 12:51 6°**Ω**44'35 min. Earth dist. -2544 Sep 11 j 04:55 29°≈21'20 4.02482 AU -2538 Jul 13 j 16:16 15°**Ω** opposition -2544 Sep 12 j 11:56 29°≈10'47 -1°-56'-22 evening set -2538 Aug 29 j 11:07 24° Ω33'58 -2538 Sep 09 j 08:10 26°**Ω**57'54 direct -2544 Nov 09 i 11:17 24°≈14'28 max. Earth dist. 6.38134 AU -2543 Jan 09 i 17:15 0°**)**€ evening set -2543 Mar 15 j 03:26 13° ¥ 31'20 conjunction -2538 Sep 11 i 03:46 $27^{\circ}\Omega$ 22'01 1°19'04 minimum elong -2538 Sep 11 i 03:46 27°Ω22'01 1°19'06 -2543 Mar 28 j 18:50 16° \ 42'24 -1°-12'-23 -2538 Sep 23 j 17:56 0° m 08'56 conjunction morning rise -2543 Mar 28 j 18:52 16° \(\frac{1}{42} \) 1°12'25 -2538 Sep 23 j 01:41 0° m minimum elong -2543 Mar 30 j 19:33 17° **★** 10'53 -2537 Jan 23 j 01:26 17° m 23'06 max. Earth dist. 6.06216 AU retrograde -2543 Apr 11 j 12:25 19°\ 54'24 -2537 Mar 24 j 21:01 12° mp 31'34 1°50'05 morning rise opposition -2543 May 27 j 19:07 0° -2537 Mar 26 j 04:59 12° m 21'23 4.34786 AU min. Earth dist. -2543 Aug 19 j 00:45 9°**Υ**31'34 -2537 May 26 j 08:12 retrograde direct 7° Mp 31'52 -2543 Oct 16 j 08:19 4°**Υ**36'22 4.11311 AU -2537 Sep 29 j 11:17 25° Mp 33'04 min. Earth dist. evening set -2543 Oct 17 j 12:37 4°**Υ**26'42 -1°-29'-25 -2537 Oct 10 j 06:41 27° m 59'07 max. Earth dist. 6.30089 AU opposition -2543 Nov 27 j 03:51 30°R € -2543 Dec 15 j 04:30 29°**∺**27'09 -2537 Oct 12 j 00:52 28° m 22'58 1°05'56 direct conjunction -2542 Jan 02 j 06:54 0°**℃** -2537 Oct 12 j 00:55 28° m 23'00 1°05'56 minimum elong -2542 Apr 20 j 17:12 18°**Y**20'48 -2537 Oct 19 j 04:31 0°**♀** evening set morning rise -2537 Oct 24 j 13:07 1°**£**12'27 conjunction -2542 May 04 j 11:54 21° Υ 28'34 0°-43'-1 retrograde -2536 Feb 25 j 07:47 19°**♀**06'54 minimum elong -2542 May 04 j 11:57 21°**Υ**28'36 0°43'01 opposition -2536 Apr 26 j 08:06 14°**£**14'19 1°15'41 max. Earth dist. -2542 May 06 j 02:58 21°**Υ**'50'47 6.17027 AU min. Earth dist. -2536 Apr 27 j 12:19 14°**2**05'20 4.24684 AU -2542 May 18 j 06:44 24°**Υ**36'12 -2536 Jun 27 j 00:11 9°**♀**17'30 morning rise direct -2542 Jun 11 j 19:03 -2536 Oct 30 j 04:31 27°**Ω**40'12 0°8 evening set -2542 Sep 21 j 06:40 13°812'23 -2536 Nov 09 j 06:27 retrograde -2542 Nov 19 j 18:24 8°**8**10'11 0°-33'-7 opposition -2536 Nov 11 j 19:16 min. Earth dist. -2542 Nov 19 i 00:15 8°816'19 4.22938 AU conjunction 0°MJ35'16 0°32'28 direct -2541 Jan 18 j 13:21 3°808'02 minimum elong -2536 Nov 11 j 19:18 0°M35'17 0°32'27 -2541 Apr 25 i 04:12 15°8 max. Earth dist. -2536 Nov 10 j 12:18 0°**M**₊17'19 6.18814 AU evening set -2541 May 25 j 20:48 21°**8**33'27 morning rise -2536 Nov 24 i 10:37 3°M30'49 -2535 Jan 17 j 15:56 15°M retrograde conjunction -2535 Mar 31 j 11:33 22° M21'23 -2541 Jun 08 j 12:50 24°**8**35'14 0°00'19 opposition -2535 May 31 j 11:36 17° M26'04 0°15'12 minimum elong -2541 Jun 08 j 04:33 24°830'39 min. Earth dist. -2535 Jun 01 j 01:17 17°M21'39 4.12953 AU behind sun begin behind sun end -2541 Jun 08 j 21:07 24°839'48 -2535 Jun 20 j 06:32 15°RM -2535 Jul 30 j 20:26 12°M31'45 max. Earth dist. -2541 Jun 09 j 03:20 24°843'16 6.28613 AU direct -2535 Aug 27 j 04:41 asc. node -2541 Jun 11 j 19:30 25°**8**18'55 desc. node 13°M43'01 morning rise -2541 Jun 22 j 03:15 27°**8**35'58 -2535 Sep 08 j 17:08 15°M -2541 Jul 03 j 03:00 -2535 Nov 26 j 14:21 $\Pi^{\circ}0$ 0°**√** -2541 Oct 22 j 22:27 15°**I**I16'41 -2535 Dec 02 j 09:16 retrograde evening set 1°**х** 21′22 -2541 Dec 21 j 14:05 10°**I**I18'22 opposition 0°30'39 -2541 Dec 21 j 12:49 10°**I**I18'47 -2535 Dec 15 j 04:47 4°**₹**23'11 0°-12'-55 min. Earth dist. 4.33475 AU conjunction direct -2540 Feb 20 j 17:29 5°**Ⅱ**14'54 minimum elong -2535 Dec 15 j 04:45 4°**х** 23′10 0°13'00 evening set -2540 Jun 27 j 07:40 23°**Ⅲ**17'07 behind sun begin -2535 Dec 14 j 23:46 4°**х** 20′14 behind sun end -2535 Dec 15 j 09:45 4°**х** 26′07 conjunction -2540 Jul 10 j 16:29 26°**Ⅲ**12'16 0°41'02 max. Earth dist. -2535 Dec 14 j 22:29 4°**∡**19'28 6.07736 AU minimum elong -2540 Jul 10 j 16:26 26° II 12'15 0°41'06 -2535 Dec 28 j 02:09 7°**х** 26′14 morning rise

retrograde

-2534 May 07 j 10:06 27° ₹ 13'28

max. Earth dist.

-2540 Jul 10 j 06:15 26°**Д**06'40 6.37316 AU

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2534 in astronomical counting style is the year 2535 BCE in historical counting style. -2534 Jul 07 j 00:49 22° ₹ 14'26 0°-53'-45 opposition -2529 Dec 25 j 22:59 14°**П**49'05 0°39'02 opposition -2534 Jul 06 j 19:57 22°**₹**16'01 min. Earth dist. -2529 Dec 25 j 23:08 14°**II**49'02 4.34404 AU min. Earth dist. 4 03505 AU -2534 Sep 04 i 01:54 17° ₹21'21 -2528 Feb 25 j 04:48 9°**Ⅱ**45'36 direct direct -2534 Dec 08 j 23:49 -2528 Jul 01 j 21:17 27°**Ⅲ**46'14 0°궁 evening set -2533 Jan 06 j 11:08 -2528 Jul 12 j 02:31 evening set 6°**ප**34'46 0ಂತಾ 9°る42'29 0°-55'-3 0°46'02 conjunction -2533 Jan 19 j 13:07 conjunction -2528 Jul 15 j 04:43 0°9540'37 -2528 Jul 15 j 04:40 -2533 Jan 19 j 13:04 minimum elong 9°**る**42'27 0°55'08 minimum elong 0°9540'36 0°46'06 -2528 Jul 14 j 14:15 max. Earth dist. -2533 Jan 20 j 09:37 9°**ප**54'46 6.00749 AU max. Earth dist. 0°932'42 6.37912 AU morning rise -2533 Feb 01 j 18:24 12°**궁**51'59 morning rise -2528 Jul 28 j 09:14 3°533'27 -2533 Apr 28 j 19:39 0°≈ retrograde -2528 Nov 26 j 00:10 20°537'15 -2527 Jan 25 j 01:18 15°5543'02 retrograde -2533 Jun 13 j 21:05 3°**≈**13'35 opposition 1°28'56 -2527 Jan 25 j 18:00 15°537'35 -2533 Jul 30 j 04:34 30°R♂ min. Earth dist. 4.40103 AU min. Earth dist. -2533 Aug 12 j 02:40 28°정18'29 3.99854 AU direct -2527 Mar 28 j 07:55 10°**©**39'51 opposition -2533 Aug 13 j 01:49 28°**궁**10'43 -1°-44'-32 evening set -2527 Aug 02 j 18:15 28°929'10 direct -2533 Oct 10 j 04:02 23°♂16'42 -2527 Aug 09 j 17:00 $0^{\circ}\Omega$ -2533 Dec 15 j 13:19 0°**≈** max. Earth dist. -2527 Aug 14 j 08:04 1°**Ω**00'45 6.40684 AU evening set -2532 Feb 12 j 02:16 12°≈40'25 -2532 Feb 21 i 21:26 15°≈ conjunction -2527 Aug 15 j 16:57 1°Ω18'45 1°12'25 minimum elong -2527 Aug 15 j 16:54 1°Ω18'43 1°12'28 conjunction -2532 Feb 25 j 11:52 15°≈51'27 -1°-16'-59 morning rise -2527 Aug 28 j 12:21 4°Ω06'47 minimum elong -2532 Feb 25 i 11:51 15°≈51'27 1°17'03 -2527 Oct 22 i 05:56 15°Ω max. Earth dist. -2532 Feb 27 i 06:37 16°≈16'54 6.00638 AU retrograde -2527 Dec 26 i 18:55 $21^{\circ}\Omega04'46$ morning rise -2532 Mar 10 j 00:36 19°≈04'04 opposition -2526 Feb 25 i 07:25 16° Ω12'43 1°53'44 -2532 Apr 28 j 13:34 0°**∀** min. Earth dist. -2526 Feb 26 j 10:38 $16^{\circ}\Omega$ 04'00 4.39935 AU -2532 Jul 19 j 17:10 9°**H**19'01 -2526 Mar 06 j 20:43 15°RΩ retrograde -2532 Sep 16 j 04:01 4°**¥**24'15 4.03409 AU -2526 Apr 28 j 23:05 $11^{\circ}\Omega$ 11'02 min. Earth dist. direct -2532 Sep 17 j 10:18 4°**¥**13'56 -1°-55'-4 -2526 Jun 20 j 10:36 15°Ω opposition -2532 Oct 25 j 01:20 30°R≈ -2526 Sep 02 j 20:03 29°**Ω**01'08 evening set -2532 Nov 14 j 11:58 29°≈17'10 -2526 Sep 07 j 06:56 direct 0° m -2532 Dec 04 j 23:14 0°**米** -2526 Sep 13 j 16:59 max. Earth dist. 1°Mp25'17 6.37474 AU -2531 Mar 20 j 05:39 18° **∺**31'38 evening set conjunction -2526 Sep 15 j 11:56 1° Mp 49'07 1°18'34 1° 10/49'07 1°18'36 -2531 Apr 02 j 21:49 21° **★** 42'29 -1°-9'-39 -2526 Sep 15 j 11:57 conjunction minimum elong -2531 Apr 02 j 21:52 21° ¥42'31 1°09'40 -2526 Sep 28 j 01:29 4° Mp 36'04 minimum elong morning rise -2531 Apr 04 j 22:44 22° **∺** 10'58 -2525 Jan 27 j 15:08 21° m 53'43 max. Earth dist. 6.07448 AU retrograde -2525 Mar 29 j 11:39 17° m 02'09 1°47'07 morning rise -2531 Apr 16 j 15:52 24° **★** 54'08 opposition -2531 May 09 j 05:10 0°**Υ** min. Earth dist. -2525 Mar 30 j 19:55 16° m 51'53 4.33901 AU retrograde -2531 Aug 23 j 17:40 14°**Y**23'49 direct -2525 May 30 j 22:35 12° m 02'52 min. Earth dist. -2531 Oct 21 j 01:22 9°**Υ**28'43 4.12716 AU -2525 Oct 03 j 20:26 0°**2**05'13 evening set opposition -2531 Oct 22 j 05:09 9°**Υ**19'15 -1°-22'-53 -2525 Oct 03 j 11:08 0∘<u>ଫ</u> -2531 Dec 19 j 22:56 4°**Ƴ**19'17 max. Earth dist. -2525 Oct 14 j 15:56 2°**2**31'46 6.29053 AU direct -2530 Apr 25 j 16:11 23°**Y**09'40 evening set -2525 Oct 16 j 09:49 2°**£**55'29 1°02'21 conjunction -2530 May 09 j 10:46 26°Υ 16'48 0°-37'-33 -2525 Oct 16 j 09:52 2°**£**55'30 1°02'21 conjunction minimum elong $-2530 \text{ May } 09 \text{ j } 10:49 \quad 26^{\circ} \Upsilon 16'50 \quad 0^{\circ} 37'32$ -2525 Oct 28 j 22:16 minimum elong morning rise 5°**≏**45'28 -2530 May 10 j 21:24 26°**Y**36'26 -2524 Mar 01 i 00:36 23°**2**45'21 max. Earth dist. 6.18490 AU retrograde -2530 May 23 i 05:29 29°**Υ**'23'42 morning rise opposition -2524 May 01 i 02:50 18° -252'24 1° 08'32 -2530 May 25 j 22:12 0°8 min. Earth dist. -2524 May 02 j 04:38 18° **2**44'10 4.23552 AU -2530 Aug 13 j 17:04 15°8 direct -2524 Jul 01 i 15:15 13° \$\omega\$55'54 -2530 Sep 25 j 18:31 17°852'14 -2524 Oct 24 j 10:31 0°M retrograde -2530 Nov 07 j 17:02 15°R8 -2524 Nov 03 j 16:10 2°M20'20 evening set 6.17698 AU -2530 Nov 24 j 06:05 12°\(\delta 50'30 \) 0°-24'-12 max. Earth dist. -2524 Nov 15 j 04:25 5°**M**₀00'21 opposition 4.24309 AU min. Earth dist. -2530 Nov 23 j 14:52 12°**8**55'38 direct -2529 Jan 23 j 05:59 7°**8**48'03 conjunction -2524 Nov 16 j 07:24 5°M16'02 0°26'39 -2529 Apr 05 j 13:56 15°**8** minimum elong -2524 Nov 16 j 07:26 $5^{\circ}\text{ML}16^{\prime}03$ 0°26'36 -2529 Apr 21 j 20:04 18°**8**01'22 morning rise -2524 Nov 28 j 23:10 8° ML12'18 asc. node -2529 May 30 j 14:48 26°**8**10'40 -2524 Dec 29 j 09:15 15°M evening set -2523 Apr 05 j 10:57 27° ML08'59 retrograde -2529 Jun 13 j 06:18 29°**8**11'41 0°05'51 -2523 Jun 05 j 09:55 22°ML13'13 0°05'43 conjunction opposition -2529 Jun 13 j 06:17 29°**8**11'41 0°05'54 -2523 Jun 05 j 22:12 22°M 09'16 minimum elong min. Earth dist. 4.11922 AU behind sun begin -2529 Jun 12 j 22:24 29°**8**07'20 desc. node -2523 Jul 08 j 06:29 18°M29'50 behind sun end -2529 Jun 13 j 14:11 29°**8**16'02 direct -2523 Aug 04 j 15:45 17°M19'08 max. Earth dist. -2529 Jun 13 j 18:30 29°**8**18'26 6.29802 AU -2523 Nov 10 j 01:23 0°**∡**¹ -2529 Jun 16 j 21:30 $0^{\circ}\Pi$ evening set -2523 Dec 07 j 01:18 6°**х** 10′40 -2529 Jun 26 j 19:35 2°II1'30 morning rise -2529 Oct 27 j 05:43 19°**Ⅱ**46'51 -2523 Dec 19 j 21:23 9° ₹ 13'08 0°-19'-13 retrograde conjunction

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2523 in astronomical counting style is the year 2524 BCE in historical counting style. -2523 Dec 19 j 21:22 9°**х** 13'07 0°19'18 behind sun end -2517 Jun 18 j 04:21 3°**Ⅱ**49'12 minimum elong 3°**Д**50'24 6.30888 AU -2523 Dec 19 j 16:54 9°×10'29 max. Earth dist. -2517 Jun 18 j 06:31 max. Earth dist. 6 06875 AU -2522 Jan 01 j 19:50 12° ₹ 16'59 -2517 Jul 01 j 11:13 6°**Ⅱ**45'07 morning rise morning rise -2517 Oct 31 j 14:02 24° II 15'30 -2522 Apr 04 j 21:24 0°₹ retrograde -2522 May 12 j 09:39 -2517 Dec 30 j 07:49 19°**I**18'13 retrograde 2°る09'08 opposition 0°47'08 -2522 Jun 19 j 00:15 min. Earth dist. -2517 Dec 30 j 10:30 19°**Ц**17'20 30°R*≯*7 4.35313 AU -1°-2'-15 -2516 Feb 29 j 18:18 14°**Д**14'42 opposition -2522 Jul 12 j 00:42 27°**х** 09′31 direct min. Earth dist. -2522 Jul 11 j 16:42 27°**∡**12′09 4.02909 AU -2516 Jun 26 j 01:55 0.ಎ direct -2522 Sep 08 j 21:24 22°**₹**16'24 evening set -2516 Jul 06 j 10:04 2°9513'32 -2522 Nov 20 j 00:32 0°ಕ evening set -2521 Jan 11 j 07:44 11°**궁**31'18 conjunction -2516 Jul 19 j 16:27 5°9907'10 0°50'44 -2516 Jul 19 j 16:24 minimum elong 5°907'09 0°50'48 -2516 Jul 19 j 00:52 conjunction -2521 Jan 24 j 10:45 14°₹39'34 0°-59'-29 max. Earth dist. 4°958'39 6.38569 AU minimum elong -2521 Jan 24 j 10:42 14°₹39'32 0°59'34 morning rise -2516 Aug 01 j 19:29 7°959'10 max. Earth dist. -2521 Jan 25 j 10:35 14°**る**53'51 6.00462 AU retrograde -2516 Nov 30 j 05:44 25°500'38 morning rise -2521 Feb 06 j 16:54 17°る49'35 opposition -2515 Jan 29 j 09:34 20°506'46 1°34'06 -2521 Apr 03 j 06:49 min. Earth dist. -2515 Jan 30 j 02:58 20°901'08 4.40469 AU 15°9503'45 retrograde -2521 Jun 18 j 22:23 8°≈12'36 direct -2515 Apr 01 j 17:44 min. Earth dist. -2521 Aug 17 j 01:26 3°≈17'12 3.99915 AU -2515 Jul 24 j 18:29 $0^{\circ}\Omega$ opposition -2521 Aug 18 j 00:47 3°**≈**09'20 -1°-48'-33 evening set -2515 Aug 07 j 03:22 2°**Ω**52'12 -2521 Sep 12 j 14:38 30°R궁 max. Earth dist. -2515 Aug 18 j 13:17 5°**Ω**21'50 6.40690 AU direct -2521 Oct 15 j 02:55 28°る15'01 -2521 Nov 16 j 11:06 0°≈ conjunction -2515 Aug 20 i 00:46 5°Ω41'17 1°14'34 -2520 Feb 05 i 19:03 15°≈ minimum elong -2515 Aug 20 i 00:44 5°**Ω**41'15 1°14'38 -2520 Feb 17 j 02:12 17°≈38'55 morning rise -2515 Sep 01 i 19:14 8°**Ω**28'54 evening set -2515 Oct 02 j 19:25 15°Ω -2520 Mar 01 j 12:50 20°≈50'14 -1°-17'-43 -2515 Dec 31 j 04:27 $25^{\circ}\Omega$ 27'44 conjunction retrograde -2520 Mar 01 j 12:50 20°≈50'14 1°17'47 -2514 Mar 01 j 17:37 $20^{\circ}\Omega$ 35'50 minimum elong opposition 1°54'44 -2520 Mar 03 j 09:16 21°≈16'37 -2514 Mar 02 j 22:46 $20^{\circ}\Omega$ 26'31 4.39559 AUmax. Earth dist. 6.01036 AU min. Earth dist. -2520 Mar 15 j 02:30 24°≈03'03 direct -2514 May 03 j 11:02 $15^{\circ}\Omega$ 34'25 morning rise -2520 Apr 10 j 00:30 0°**光** -2514 Aug 22 j 09:18 0° mb -2520 Jul 24 j 13:58 14°**光** 14'41 -2514 Sep 07 j 03:12 retrograde evening set 3° m 25'01 -2520 Sep 20 j 22:53 -2514 Sep 17 j 23:03 9°**∺**20'02 4.04124 AU max. Earth dist. 5° Mp 48'53 6.36713 AU min. Earth dist. -2520 Sep 22 j 05:32 9°**₩**09'35 opposition -1°-53'00 -2520 Nov 19 j 07:12 4°**米** 12'26 -2514 Sep 19 j 18:33 6° m 13'03 1°17'37 direct conjunction 6°№13'04 -2519 Mar 25 j 06:02 23°**∺**25'39 -2514 Sep 19 j 18:34 evening set minimum elong 1°17'38 -2514 Oct 02 j 07:35 morning rise 9°**m**00'07 conjunction -2519 Apr 07 j 22:47 26°**)** 36'22 -1°-6'-28 retrograde -2513 Feb 01 j 02:25 26° Mp 21'56 minimum elong -2519 Apr 07 j 22:50 26° ★ 36'24 1°06'29 opposition -2513 Apr 03 j 01:15 21° M 30'15 1°43'33 max. Earth dist. -2519 Apr 09 j 21:06 27°**₭**03'17 6.08419 AU min. Earth dist. -2513 Apr 04 j 08:25 21° Mp 20'21 4.32792 AU morning rise -2519 Apr 21 j 17:27 29°**升**47'49 direct -2513 Jun 04 j 09:18 16° M 31'20 -2519 Apr 22 j 14:38 $0^{\circ}\Upsilon$ -2513 Sep 17 j 08:13 0°Ω -2519 Aug 28 j 09:05 19°**Υ**11'11 -2513 Oct 08 j 04:49 4°**£**35'54 retrograde evening set -2519 Oct 26 j 20:00 14°**Y**′06'52 -1°-15'-56 max. Earth dist. -2513 Oct 19 j 01:59 7°**≏**03'51 6.27681 AU opposition -2519 Oct 25 j 17:53 14°**Υ**15'47 4.13835 AU min. Earth dist. 9°**Y**06'32 direct -2519 Dec 24 i 17:12 conjunction -2513 Oct 20 j 18:10 7°**≏**26'43 0°58'24 evening set -2518 Apr 30 j 13:43 27° Υ 54'43 minimum elong -2513 Oct 20 j 18:13 7°**£**26'44 0°58'24 -2518 May 09 j 19:57 0°8 morning rise -2513 Nov 02 i 06:46 10° **2**17'20 retrograde -2512 Mar 05 j 20:25 28° **2**24'11 -2518 May 14 i 08:30 1°801'23 0°-31'-54 opposition -2512 May 05 i 21:40 23° \(\Omega\) 30'58 1°00'56 conjunction -2518 May 14 i 08:32 1°**8**01'24 0°31'52 min. Earth dist. -2512 May 06 j 23:10 23° \(\Omega\) 22'50 4.21979 AU minimum elong max. Earth dist. -2518 May 15 j 17:58 1°**8**20'19 6.19703 AU direct -2512 Jul 06 j 07:24 18°**2**34'50 4°807'36 -2518 May 28 j 02:44 -2512 Oct 07 j 12:22 morning rise o°m. -2518 Jul 19 j 11:01 15°8 evening set -2512 Nov 08 j 04:27 7° ML02'48retrograde -2518 Sep 30 j 05:31 22°829'27 -2518 Nov 28 j 17:10 17°**8**28'16 0°-15'-15 conjunction -2512 Nov 20 j 20:10 9°**™**59'25 0°20'35 opposition min. Earth dist. -2518 Nov 28 j 03:20 17°**8**32'55 4.25503 AU minimum elong -2512 Nov 20 j 20:11 9°**™**59'26 0°20'32 -2518 Dec 17 j 22:37 15°R8 -2512 Nov 19 j 18:34 9°**™**44'30 6.16062 AU max. Earth dist. -2517 Jan 27 j 20:17 12°**8**25'40 -2512 Dec 03 j 12:50 12°M 56'45 direct morning rise -2512 Dec 12 j 10:54 asc. node -2517 Mar 02 j 03:14 14°**8**07'31 15°M -2517 Mar 10 j 05:50 15°**8** -2511 Mar 04 j 20:49 0°**√** -2517 May 31 j 20:25 $0^{\circ}\Pi$ retrograde -2511 Apr 10 j 11:04 2°**₹**'01'48 evening set -2517 Jun 04 j 08:18 0°**Ⅱ**45'57 -2511 May 17 j 07:09 30°RML desc. node -2511 May 18 j 15:40 29° ML51'29 conjunction -2517 Jun 17 j 22:47 3°**II**46'08 0°11'53 opposition -2511 Jun 10 j 09:55 27° ML 05'32 0°-3'-58 -2517 Jun 17 j 22:46 3°**Ⅱ**46′08 0°11'57 min. Earth dist. -2511 Jun 10 j 18:52 27°ML02'38 4.10355 AU minimum elong -2517 Jun 17 j 17:11 3°**Ⅱ**43'04 -2511 Aug 09 j 09:37 22°M11'40 behind sun begin direct

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 35 Attention, astronomical year style is used: The year -2511 in astronomical counting style is the year 2512 BCE in historical counting style.

Attention, astronom	ical year style is used: Tl	ne year -2511	in astronomical cou				•
	-2511 Oct 21 j 22:28	0° ∡ ¹		morning rise	-2505 Jul 06 j 01:04		
evening set	-2511 Dec 11 j 19:51	11° ∡ 107′17		retrograde	-2505 Nov 04 j 18:59		
				opposition	-2504 Jan 03 j 14:42		0°54'42
conjunction	3	14° ∡ 10′43	0°-25'-33	min. Earth dist.	-2504 Jan 03 j 19:21		4.36840 AU
minimum elong	-2511 Dec 24 j 16:49	14° ∡ 10'42	0°25'38	direct	-2504 Mar 05 j 05:28		
max. Earth dist.	-2511 Dec 24 j 16:41	14° ∡ 10'37	6.05518 AU		-2504 Jun 09 j 11:16	0°€	
morning rise	-2510 Jan 06 j 16:14	17° ∡ 15'36		evening set	-2504 Jul 10 j 19:29	6° ॐ 33'09	
	-2510 Mar 06 j 20:16	0° ろ		max. Earth dist.	-2504 Jul 23 j 04:07	9° © 14'42	6.39668 AU
retrograde	-2510 May 17 j 15:32	7° る 14'42					
opposition	-2510 Jul 17 j 04:12	2° る 14'32	-1°-10'-37	conjunction	-2504 Jul 24 j 00:23	9° © 25'45	0°54'59
min. Earth dist.	-2510 Jul 16 j 18:36	2°る17'42	4.01902 AU	minimum elong	-2504 Jul 24 j 00:20	9° © 25'44	0°55'02
	-2510 Aug 03 j 19:48			morning rise	-2504 Aug 06 j 02:13	12° © 16'47	
direct	-2510 Sep 13 j 22:03			retrograde	-2504 Dec 04 j 09:40		
_	-2510 Oct 24 j 06:30	0° ろ		opposition	-2503 Feb 02 j 14:47		1°38'30
evening set	-2509 Jan 16 j 08:57	16° る 39'20		min. Earth dist.	-2503 Feb 03 j 11:00		4.41081 AU
				direct	1 3	19° © 18'25	
conjunction	-2509 Jan 29 j 13:02				-2503 Jul 08 j 07:59	$0^{\circ}\Omega$	
minimum elong	-2509 Jan 29 j 12:59	19° る 48'18	1°03'43	evening set	-2503 Aug 11 j 08:10	7° Ω 05'16	
max. Earth dist.	-2509 Jan 30 j 16:28	20°る04'45	5.99889 AU	max. Earth dist.	-2503 Aug 22 j 15:49	9° Ω 33'41	6.40746 AU
morning rise	-2509 Feb 11 j 20:21	22° る 59'05					
	-2509 Mar 14 j 07:57	0° ≈		conjunction	-2503 Aug 24 j 04:40	9° £ 53′53	1°16'13
retrograde	-2509 Jun 24 j 03:44	13° ≈ 24'01		minimum elong	-2503 Aug 24 j 04:38	9° £ 53′52	1°16'16
min. Earth dist.	-2509 Aug 22 j 02:21	8° ≈ 29'01	3.99886 AU	morning rise	-2503 Sep 05 j 21:58		
opposition	-2509 Aug 23 j 03:54	8°≈20'24	-1°-51'-56		-2503 Sep 16 j 15:05		
direct	-2509 Oct 20 j 03:46	3° ≈ 25'49		retrograde	-2502 Jan 04 j 08:16		
	-2508 Jan 18 j 20:19	15° ≈		opposition	-2502 Mar 05 j 23:56		1°55'04
evening set	-2508 Feb 22 j 07:24	22° ≈ 50′10		min. Earth dist.	-2502 Mar 07 j 05:47		4.39060 AU
				direct	-2502 May 07 j 16:30		
conjunction	-2508 Mar 06 j 18:57				-2502 Aug 05 j 21:17	0° m	
minimum elong	-2508 Mar 06 j 18:58	26° ≈ 01'42	1°17'57	evening set	-2502 Sep 11 j 06:54	7° m ,39'42	
max. Earth dist.	-2508 Mar 08 j 16:03	26° ≈ 28′26	6.01542 AU	max. Earth dist.	-2502 Sep 22 j 00:14	10° Mp 02'36	6.35678 AU
morning rise	-2508 Mar 20 j 09:39	29° ≈ 14'41					
	-2508 Mar 23 j 14:57	0° ∀		conjunction	-2502 Sep 23 j 21:37	-	
retrograde	-2508 Jul 29 j 13:50	19° ∺ 22'02		minimum elong	-2502 Sep 23 j 21:38		1°16'17
min. Earth dist.	-2508 Sep 25 j 22:00	14° ∺ 27'25	4.05129 AU	morning rise	-2502 Oct 06 j 10:26		
opposition	-2508 Sep 27 j 04:57		-1°-50'00		-2501 Jan 15 j 04:06	0∘ ⊽	
direct	-2508 Nov 24 j 08:22	9° ₩ 19'15		retrograde	-2501 Feb 05 j 14:12	0° £ 42′29	
evening set	-2507 Mar 30 j 10:14				-2501 Feb 27 j 00:10		
	-2507 Apr 05 j 22:47	0 ° $\mathbf{\Upsilon}$		opposition	-2501 Apr 07 j 12:19	25° m 50'43	1°39'32
				min. Earth dist.	-2501 Apr 08 j 20:52	25° Mp 40'22	4.31258 AU
conjunction	-2507 Apr 13 j 03:44	1° Ƴ 40'04	-1°-2'-44	direct	-2501 Jun 08 j 18:52	20° M 52'05	
minimum elong	-2507 Apr 13 j 03:48	1° Ƴ 40'06	1°02'45		-2501 Aug 31 j 03:19	0∘ ⊽	
max. Earth dist.	-2507 Apr 15 j 03:21	2° Y 07'38	6.09881 AU	evening set	-2501 Oct 12 j 10:45	9° 쇼 00'29	
morning rise	-2507 Apr 26 j 22:32	4° Ƴ 50'56		max. Earth dist.	-2501 Oct 23 j 08:32	11° ≏ 29'25	6.25777 AU
retrograde	-2507 Sep 02 j 03:02	24° Y 05'33					
opposition	-2507 Oct 31 j 13:29	19° Ƴ 01'34	-1°-8'-20	conjunction	-2501 Oct 25 j 00:22	11° ≏ 52'09	0°54'13
min. Earth dist.	-2507 Oct 30 j 12:17	19° Ƴ 10′08	4.15605 AU	minimum elong	-2501 Oct 25 j 00:25	11° ≏ 52'11	0°54'12
direct	-2507 Dec 29 j 14:42	14° Y 00'53		morning rise	-2501 Nov 06 j 13:21	14° ≏ 43'45	
	-2506 Apr 23 j 05:14	9° 8			-2500 Jan 25 j 15:45	0° M	
evening set	-2506 May 05 j 13:11	2° 8 44'05		retrograde	-2500 Mar 10 j 13:52	2°M59'41	
					-2500 Apr 25 j 09:11	30° ₹ Ω	
conjunction	-2506 May 19 j 07:29	5° 8 49'45	0°-26'00	opposition	-2500 May 10 j 15:24	28° ≏ 06'10	0°53'07
minimum elong	-2506 May 19 j 07:31	5° 8 49'46	0°25'59	min. Earth dist.	-2500 May 11 j 14:43	27° ♀ 58'42	4.19827 AU
max. Earth dist.	-2506 May 20 j 13:39	6° 8 06'44	6.21647 AU	direct	-2500 Jul 10 j 19:00	23° ჲ 10′23	
morning rise	-2506 Jun 02 j 01:19	8° 8 54'54			-2500 Sep 18 j 06:01	0° M	
-	-2506 Jun 30 j 02:49	15° 8		evening set	-2500 Nov 12 j 16:47	11°ML44'13	
retrograde	-2506 Oct 04 j 15:01	27° 8 07'16		max. Earth dist.	-2500 Nov 24 j 10:35		6.13861 AU
opposition	-2506 Dec 03 j 04:25		0°-6'-15		•		
min. Earth dist.	3	22° 8 10'34	4.27448 AU	conjunction	-2500 Nov 25 j 09:10	14°M42'04	0°14'28
iiiii. Eartii tiist.	-2506 Dec 02 j 16:22			minimum elong	-2500 Nov 25 j 09:11	14°M42'04	0°14'25
asc. node	-2506 Dec 02 j 16:22 -2505 Jan 10 j 16:04	17° 8 49'33					
		17° 8 49'33 17° 8 03'39		behind sun begin	-2500 Nov 25 j 05:20	14°M39'50	
asc. node	-2505 Jan 10 j 16:04			_			
asc. node	-2505 Jan 10 j 16:04 -2505 Feb 01 j 12:50	17° 8 03'39		behind sun begin	-2500 Nov 25 j 05:20	14°M39'50	
asc. node direct	-2505 Jan 10 j 16:04 -2505 Feb 01 j 12:50 -2505 May 15 j 03:48	17° ႘ 03'39 0°Ⅱ		behind sun begin	-2500 Nov 25 j 05:20 -2500 Nov 25 j 13:01 -2500 Nov 26 j 15:46	14°M39'50 14°M44'19 15°M	
asc. node direct	-2505 Jan 10 j 16:04 -2505 Feb 01 j 12:50 -2505 May 15 j 03:48	17° ႘ 03'39 0°Ⅱ	0°17'47	behind sun begin behind sun end	-2500 Nov 25 j 05:20 -2500 Nov 25 j 13:01	14°M39'50 14°M44'19	
asc. node direct evening set conjunction	-2505 Jan 10 j 16:04 -2505 Feb 01 j 12:50 -2505 May 15 j 03:48 -2505 Jun 09 j 00:28 -2505 Jun 22 j 14:02	17° ႘ 03'39 0° 川 5° 川 18'44 8° 川 17'45		behind sun begin behind sun end morning rise	-2500 Nov 25 j 05:20 -2500 Nov 25 j 13:01 -2500 Nov 26 j 15:46 -2500 Dec 08 j 02:41 -2499 Feb 04 j 04:59	14°M39'50 14°M44'19 15°M 17°M40'44 0° 🗷	
asc. node direct evening set	-2505 Jan 10 j 16:04 -2505 Feb 01 j 12:50 -2505 May 15 j 03:48 -2505 Jun 09 j 00:28	17° 8 03'39 0°Ⅲ 5°Ⅲ18'44 8°Ⅲ17'45 8°Ⅲ17'44		behind sun begin behind sun end	-2500 Nov 25 j 05:20 -2500 Nov 25 j 13:01 -2500 Nov 26 j 15:46 -2500 Dec 08 j 02:41	14°M39'50 14°M44'19 15°M 17°M40'44	

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2499 in astronomical counting style is the year 2500 BCE in historical counting style. -2499 Jun 15 i 10:56 1°**₹**'59'41 0°-13'-38 -2493 Apr 26 j 06:36 $\Pi^{\circ}0$ opposition min. Earth dist. -2499 Jun 15 j 18:09 1°**≯**57'20 4.08278 AU -2493 Jun 13 j 17:16 9°**Ⅲ**53'49 evening set -2499 Jul 01 j 06:50 30°RML -2493 Jun 27 j 05:41 12°**Д**51'47 0°23'40 direct -2499 Aug 14 j 06:12 27° ML06'03 conjunction -2493 Jun 27 j 05:39 12°**Д**51'46 -2499 Sep 26 j 04:48 0°23'45 0°**∡**¹ minimum elong -2499 Dec 16 j 16:35 -2493 Jun 27 j 06:49 12°**Ⅲ**52'24 evening set 16°**х** 07'49 max. Earth dist. 6.34148 AU -2493 Jul 10 j 15:34 15°**Д**48'20 morning rise -2499 Dec 29 j 14:40 19° 🗷 12'29 0°-31'-43 conjunction -2493 Sep 24 j 21:21 0ಂಲ -2499 Dec 29 j 14:38 19°**尽** 12'28 3°906'00 minimum elong 0°31'48 retrograde -2493 Nov 09 j 01:52 max. Earth dist. -2499 Dec 29 j 18:42 19°**х** 14'53 6.03768 AU -2493 Dec 24 j 15:05 30°R∏ morning rise -2498 Jan 11 j 15:17 22°**х** 18'40 opposition -2492 Jan 07 j 23:08 28°**Ⅲ**09'45 1°02'11 -2498 Feb 14 j 07:44 0°ಕ min. Earth dist. -2492 Jan 08 j 06:06 28°**Ⅲ**07′28 4.37913 AU retrograde -2498 May 22 j 23:12 12°る25'50 direct -2492 Mar 09 j 17:20 23°**Ⅲ**06'10 opposition -2498 Jul 22 j 09:50 7°**る**25'11 -1°-18'-30 -2492 May 20 j 23:32 0ಂತಾ min. Earth dist. -2498 Jul 21 j 20:41 7°る29'32 4.00691 AU evening set -2492 Jul 15 j 06:56 10°958'50 direct -2498 Sep 18 j 22:42 2°る32'01 evening set -2497 Jan 21 j 13:23 21°る53'48 conjunction -2492 Jul 28 j 10:39 13°550'41 0°59'05 minimum elong -2492 Jul 28 j 10:36 13°550'39 0°59'08 conjunction -2497 Feb 03 j 18:31 25°る03'32 -1°-7'-20 max. Earth dist. -2492 Jul 27 j 12:09 13°9538'24 6.40279 AU minimum elong -2497 Feb 03 j 18:28 25°る03'31 morning rise -2492 Aug 10 j 11:02 16°540'54 max. Earth dist. -2497 Feb 05 j 01:13 25°る21'57 5.99305 AU -2492 Oct 20 j 06:46 $0^{\circ}\Omega$ morning rise -2497 Feb 17 i 03:05 28°る15'04 retrograde -2492 Dec 08 i 16:28 3°**Ω**37'30 -2497 Feb 24 i 12:38 0°≈ -2491 Jan 28 i 01:52 30° R 55 -2497 May 11 i 02:21 15°≈ opposition -2491 Feb 06 i 23:04 28°5044'20 1°42'36 -2497 Jun 29 j 10:19 18°≈41'29 min. Earth dist. -2491 Feb 07 j 21:05 28°537'14 4.41214 AU retrograde -2497 Aug 18 j 02:05 15°R≈ -2491 Apr 10 j 12:00 23°5541'34 direct -2497 Aug 27 j 05:37 13°≈46'47 3.99999 AU -2491 Jun 18 j 13:13 min. Earth dist. $0^{\circ}\Omega$ opposition -2497 Aug 28 j 09:19 13°≈37'24 -1°-54'-23 evening set -2491 Aug 15 j 16:33 11°Ω28'20 -2497 Oct 25 j 08:29 8°≈42'26 direct max Earth dist -2491 Aug 26 j 19:34 13°**Ω**54'30 6.40367 AU -2497 Dec 28 j 08:37 15°≈ -2496 Feb 27 j 14:59 28°≈06'26 conjunction -2491 Aug 28 j 11:55 14°Ω16'40 1°17'33 evening set -2496 Mar 06 j 15:37 0°**₩** minimum elong -2491 Aug 28 j 11:54 14°Ω16'39 1°17'35 -2491 Aug 31 j 18:49 15°**Ω** -2496 Mar 12 j 03:43 1°**升**18'05 -1°-17'-26 -2491 Sep 10 j 04:31 17° Ω 03'40 conjunction morning rise -2496 Mar 12 j 03:44 1°**¥**18′05 1°17′28 -2491 Nov 16 j 19:28 minimum elong 0° m -2496 Mar 14 j 04:29 1°**¥**46′55 6.02322 AU -2490 Jan 08 j 19:32 max. Earth dist. retrograde 4° Mp 06'00 morning rise -2496 Mar 25 j 19:06 4°**)**€31'01 -2490 Mar 04 j 11:34 30°R€ retrograde -2496 Aug 03 j 15:43 24°**米**32'19 opposition -2490 Mar 10 j 11:19 29°**Ω**14'21 1°54'51 min. Earth dist. -2496 Sep 30 j 22:33 19° **€** 37'36 4.06459 AU min. Earth dist. -2490 Mar 11 j 18:47 29°**Ω**04'18 4.38205 AU -2496 Oct 02 j 05:20 19°**¥**27'06 -1°-46'-4 direct -2490 May 12 j 03:39 24°**Ω**13'24 opposition -2496 Nov 29 j 11:03 14°**∺**29'03 -2490 Jul 16 j 13:21 direct -2495 Mar 19 j 18:59 $0^{\circ}\Upsilon$ -2490 Sep 15 j 14:54 12° Mp 07'11 evening set -2495 Apr 04 j 15:44 3°Y35'34 max. Earth dist. -2490 Sep 26 j 08:47 14° m 30'49 evening set 6.34414 AU -2495 Apr 18 j 09:31 6°Y45'21 0°-58'-29 -2490 Sep 28 j 05:23 14° M 55'45 1°14'27 conjunction conjunction minimum elong -2495 Apr 18 i 09:35 6°Υ45'23 0°58'29 minimum elong -2490 Sep 28 i 05:24 14° m 55'45 1°14'28 max. Earth dist. -2495 Apr 20 i 07:12 7°Υ11'39 6.11598 AU morning rise -2490 Oct 10 j 17:50 17° mp 43'30 morning rise -2495 May 02 i 04:38 9°**Y**55'31 -2490 Dec 11 i 09:17 0∘**⊽** retrograde -2495 Sep 06 i 19:05 29° \cdot \cdot 00'26 retrograde -2489 Feb 10 i 05:23 5°**£**16'49 min. Earth dist. -2495 Nov 04 i 06:29 24° Υ 05'02 4.17501 AU -2489 Apr 12 j 04:47 0°**£**24'55 1°34'43 opposition -2495 Nov 05 i 06:49 23°Υ'56'46 -1°00'-11 min. Earth dist. -2489 Apr 13 j 12:10 0°**2**14'57 4.29671 AU opposition -2494 Jan 03 j 12:09 18° Υ'55'40 -2489 Apr 15 j 11:14 30°R M direct direct -2489 Jun 13 j 07:13 25° M 26'42 -2494 Apr 05 j 06:20 0°8 evening set -2494 May 10 j 12:33 7°**8**33'51 -2489 Aug 09 j 00:11 0∘**⊽** evening set -2489 Oct 16 j 21:58 13°**2**38'49 -2494 May 24 j 06:34 10°**8**38'33 0°-19'-52 conjunction max. Earth dist. -2489 Oct 27 j 21:08 16°**£**09'11 6.24008 AU minimum elong -2494 May 24 j 06:35 10°**8**38'34 0°19'51 -2494 May 25 j 09:52 10°**8**53'52 -2489 Oct 29 j 11:39 16° **2**31'16 0° 49'29 max. Earth dist. 6.23569 AU conjunction -2494 Jun 06 j 23:35 13°**8**42'33 -2489 Oct 29 j 11:42 16°**2**31'18 0°49'27 morning rise minimum elong -2494 Jun 12 j 19:28 15°**8** -2489 Nov 11 j 01:10 19°**£**23'49 morning rise -2494 Sep 05 j 15:14 Π $^{\circ}0$ -2489 Dec 31 j 04:30 0° M retrograde -2494 Oct 09 j 02:50 1°**Ⅱ**46′06 retrograde -2488 Mar 15 j 14:29 7°M48'18 -2494 Nov 11 j 08:22 30°₹**४** opposition -2488 May 15 j 14:23 2°M54'24 0°44'30 asc. node -2494 Nov 20 j 02:09 29°**8**02'01 min. Earth dist. -2488 May 16 j 12:24 2°M47'21 4.17997 AU opposition -2494 Dec 07 j 16:09 26°**8**45'58 0°02'51 -2488 Jun 08 j 21:47 30°R **≏** -2494 Dec 07 j 06:53 26°**8**49'04 4.29209 AU -2488 Jul 15 j 14:11 27°**£**58'58 min. Earth dist. direct -2493 Feb 06 j 05:59 21°**8**42'56 -2488 Aug 20 j 19:11 direct

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 37 Attention, astronomical year style is used: The year -2488 in astronomical counting style is the year 2489 BCE in historical counting style.

Attention, astronomi	cal year style is used: Th	ne year -2488	in astronomical cou	nting style is the year	2489 BCE in historical of	counting style.	
	-2488 Nov 10 j 09:46	15° ™		conjunction	-2482 May 29 j 01:33	15° 8 16'59	0°-13'-50
evening set	-2488 Nov 17 j 09:22	16°M37'13		minimum elong	-2482 May 29 j 01:34	15° 8 16'59	0°13'48
max. Earth dist.	-2488 Nov 29 j 07:56	19°M25'10	6.12166 AU	behind sun begin	-2482 May 28 j 21:25	15° 8 14'41	
				behind sun end	-2482 May 29 j 05:42		
conjunction	-2488 Nov 30 j 02:34		0°07'59	max. Earth dist.	-2482 May 30 j 01:19		6.25210 AU
minimum elong	-2488 Nov 30 j 02:33	19° ™ 36′07	0°07'57	morning rise	-2482 Jun 11 j 17:52		
behind sun begin	-2488 Nov 29 j 19:21	19° ™ 31'54			-2482 Aug 08 j 10:25	0°Щ	
behind sun end	-2488 Nov 30 j 09:46	19° ™ 40′20		asc. node	-2482 Sep 30 j 19:42	6° Ⅱ 00'30	
morning rise	-2488 Dec 12 j 20:57	22°M35'54		retrograde	-2482 Oct 13 j 09:56	6° Ⅱ 16'07	
	-2487 Jan 14 j 18:14	0° ∡		opposition	-2482 Dec 12 j 00:43	1° Ⅱ 16'33	0°11'40
desc. node	-2487 Feb 06 j 01:21	4° ₹ 26'19		min. Earth dist.	-2482 Dec 11 j 17:13	1° Ⅱ 19'03	4.30581 AU
retrograde	-2487 Apr 20 j 19:42	11° × 759'58	00 001 00		-2482 Dec 21 j 16:27		
opposition	-2487 Jun 20 j 15:16	7° ∡ '02'42		direct	-2481 Feb 10 j 17:41		
min. Earth dist.	-2487 Jun 20 j 18:57	7° ∡ 01'31	4.06903 AU		-2481 Apr 03 j 00:06	0°II	
direct	-2487 Aug 19 j 05:01	2° x ⁷ 09'19		evening set	-2481 Jun 18 j 07:18	14°Щ21′35	
evening set	-2487 Dec 21 j 15:52	21° x '14'24		:	2401 I1 01: 10.20	170 T 10142	0020117
	24061 02:14.44	240 710/51	00 271 47	conjunction minimum elong	-2481 Jul 01 j 18:39		0°29'17 0°29'20
conjunction minimum elong	-2486 Jan 03 j 14:44 -2486 Jan 03 j 14:41			max. Earth dist.	-2481 Jul 01 j 18:37 -2481 Jul 01 j 15:40		6.35156 AU
max. Earth dist.	-2486 Jan 03 j 22:36		6.02836 AU	morning rise	-2481 Jul 15 j 03:19		0.33130 AU
morning rise	-2486 Jan 16 j 16:28		0.02830 AU	morning rise	-2481 Sep 01 j 03:20	0°95	
morning risc	-2486 Jan 27 j 12:39	0°る		retrograde	-2481 Nov 13 j 09:05	0 S 7°S28'17	
retrograde	-2486 May 28 j 06:17			opposition	-2480 Jan 12 j 06:15	2°932'36	1°09'08
opposition		17 33830 12° 337 '20	-1°-25'-49	min. Earth dist.	-2480 Jan 12 j 16:14	2° © 3230	4.38504 AU
min. Earth dist.	-2486 Jul 26 j 23:38	12°る42'41	4.00324 AU	iiiii. Lartii dist.	-2480 Feb 01 j 15:06		4.30304 AC
direct	-2486 Sep 24 j 02:19	7°る43'59	4.00324710	direct	-2480 Mar 14 j 03:55		
evening set	-2485 Jan 26 j 17:23			direct	-2480 Apr 25 j 00:21	0°95	
evening set	-2485 Feb 07 j 20:08	0°≈		evening set	-2480 Jul 19 j 16:53		
	2.00100 07,120.00	0.0		evening sec	2.000001 19 1 10.00	10 021 00	
conjunction	-2485 Feb 08 j 23:41	0° ≈ 16′29	-1°-10'-30	conjunction	-2480 Aug 01 j 19:25	18°9512'24	1°02'46
minimum elong	-2485 Feb 08 j 23:38	0°≈16'27		minimum elong	-2480 Aug 01 j 19:22		1°02'50
max. Earth dist.	-2485 Feb 10 j 11:26		5.99528 AU	max. Earth dist.	-2480 Jul 31 j 17:11		6.40392 AU
morning rise	-2485 Feb 22 j 09:06	3° ≈ 28'16		morning rise	-2480 Aug 14 j 18:42		
C	-2485 Apr 15 j 15:21	15° ≈		C	-2480 Sep 27 j 16:40	$0^{\circ}\Omega$	
retrograde	-2485 Jul 04 j 14:49	23° ≈ 52'30		retrograde	-2480 Dec 13 j 00:01	7° Ω 58'58	
min. Earth dist.	-2485 Sep 01 j 07:29	18° ≈ 57'44	4.00806 AU	opposition	-2479 Feb 11 j 07:34		1°46'06
opposition	-2485 Sep 02 j 11:55	18° ≈ 48′06	-1°-55'-52	min. Earth dist.	-2479 Feb 12 j 07:02	2° Ω 58'34	4.40884 AU
	-2485 Oct 04 j 18:19	15°R≈			-2479 Mar 09 j 07:49	30° ₹ 5	
direct	-2485 Oct 30 j 11:06	13° ≈ 52'45		direct	-2479 Apr 14 j 20:43	28° © 03'35	
	-2485 Nov 25 j 04:47	15° ≈			-2479 May 21 j 15:27	0 $^{\circ}\Omega$	
	-2484 Feb 18 j 21:00	0°)			-2479 Aug 16 j 01:55	15° Ω	
evening set	-2484 Mar 03 j 19:43	3°) 14′05		evening set	-2479 Aug 20 j 00:52	15° Ω 51'39	
				max. Earth dist.	-2479 Aug 31 j 03:10	18° Ω 17'44	6.39621 AU
conjunction	-2484 Mar 17 j 09:09	6° ∺ 25′29	-1°-16'-23				
minimum elong	-2484 Mar 17 j 09:11	6° ∺ 25'30	1°16'25	conjunction	-2479 Sep 01 j 19:27		1°18'25
max. Earth dist.	-2484 Mar 19 j 09:36	6° ¥ 54'01	6.03601 AU	minimum elong	-2479 Sep 01 j 19:26	18° Ω 39'55	1°18'27
morning rise	-2484 Mar 31 j 01:24	9°) 38′09		morning rise	-2479 Sep 14 j 11:07		
retrograde	-2484 Aug 08 j 11:02	29° ∺ 31'41			-2479 Oct 25 j 18:40	0° m)	
min. Earth dist.	-2484 Oct 05 j 18:21	24°) ₹37'06	4.08066 AU	retrograde	-2478 Jan 13 j 06:55	8° Mg 32'56	
opposition	-2484 Oct 07 j 01:23	24° ∺ 26′30	-1°-41'-29	opposition	-2478 Mar 14 j 23:40	3°Mp41'26	1°53'56
direct	-2484 Dec 04 j 09:27	19°) €27'58		min. Earth dist.	-2478 Mar 16 j 07:25	3°m/31'18	4.37105 AU
	-2483 Mar 01 j 19:27	0°Υ			-2478 Apr 16 j 16:01	30°R€	
evening set	-2483 Apr 09 j 16:41	8° Y 29'56		direct	-2478 May 16 j 14:31	28° Ω 40′56	
	2402 4 22:10.51	1100000000	00.501.55		-2478 Jun 15 j 14:10	0°m)	
conjunction	-2483 Apr 23 j 10:51	11° Y 39'03	0°-53'-57	evening set	-2478 Sep 20 j 00:03	16° Tp 37'21	6 220 15 1 XX
minimum elong	-2483 Apr 23 j 10:55	11° Y 39'05	0°53'57	max. Earth dist.	-2478 Sep 30 j 16:50	19° m 00'55	6.33047 AU
max. Earth dist.	-2483 Apr 25 j 06:24	12° Y ′04'03	6.13398 AU		2470 0 4 02 14 02	100 7 2 (110	1012100
morning rise	-2483 May 07 j 05:54	14° Y 48'24		conjunction	-2478 Oct 02 j 14:03	19° Tp 26'18	1°12'09
ratragrada	-2483 Jul 23 j 21:06	0°8		minimum elong	-2478 Oct 02 j 14:05	19° Mp 26'19	1°12'10
retrograde	-2483 Sep 11 j 09:33	3° 8 44'02 30° ₹ Υ		morning rise	-2478 Oct 15 j 02:33	22° Mp 14'37 0° <u>∩</u>	
annagition	-2483 Oct 31 j 00:12	30°κγ 28° Υ 40'47	0° 51' 57	ratragrada	-2478 Nov 20 j 11:27		
opposition	-2483 Nov 09 j 20:21	28°°°40'47 28°°°48'06	0°-51'-57 4.19290 AU	retrograde	-2477 Feb 14 j 23:45	9° £ 54'23 5° £ 02'19	1020/14
min. Earth dist.	-2483 Nov 08 j 22:49	28° γ 48'06 23° γ 39'21	7.1747U AU	opposition min. Earth dist.	-2477 Apr 16 j 22:52	4° £ 52'35	1°29'14 4.28117 AU
direct	-2482 Jan 08 j 06:59 -2482 Mar 15 j 23:46	0° 8		min. Earth dist.	-2477 Apr 18 j 05:23 -2477 Jun 17 j 22:10	4° ± 52′35 0° £ 04′31	4.2011/AU
evening set	-2482 May 15 j 07:59	12° 8 13'09		evening set	-2477 Oct 21 j 09:51	18° £ 19'57	
evening set	-2482 May 13 j 07.39			evening set	27// Oct 21 J 09.31	10 == 173/	
	2 102 1viuy 21 j 19.10	15 0					

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 38

-	nical year style is used: The		_	` ''		, .	
conjunction	-2477 Nov 02 j 23:58	-			-2471 Jun 30 j 00:23	0°8	
minimum elong	-2477 Nov 03 j 00:01			retrograde	-2471 Sep 15 j 21:48	8° 8 27'34	
max. Earth dist.	-2477 Nov 01 j 12:59	20° ჲ 53'04	6.22419 AU	opposition	-2471 Nov 14 j 09:16	3° 8 24'45	0°-43'-26
morning rise	-2477 Nov 15 j 13:50	24° ≏ 06'36		min. Earth dist.	-2471 Nov 13 j 12:45	3° 8 31'42	4.20767 AU
	-2477 Dec 12 j 01:05	0° M.			-2471 Dec 12 j 05:32	30° ₹ Υ	
retrograde	-2476 Mar 20 j 13:40	12°M38'53		direct	-2470 Jan 12 j 22:36	28° Y 22'58	
opposition	-2476 May 20 j 14:05	7°M44'36	0°35'30		-2470 Feb 14 j 02:39	8° 0	
min. Earth dist.	-2476 May 21 j 09:27	7°M38'23	4.16479 AU		-2470 May 11 j 13:14		
direct	-2476 Jul 20 j 09:07	2°M49'36		evening set	-2470 May 20 j 03:37	16° 8 53'33	
_	-2476 Oct 24 j 07:05						
evening set	-2476 Nov 22 j 02:25	21°IIL31'02		conjunction	-2470 Jun 02 j 20:33		0°-7'-42
. ,.	2476 D 04:20.02	240 m 20144	0001125	minimum elong	-2470 Jun 02 j 20:34	_	0°07'39
conjunction minimum elong	-2476 Dec 04 j 20:03 -2476 Dec 04 j 20:04		0°01'25 0°01'21	behind sun begin behind sun end	-2470 Jun 02 j 13:05 -2470 Jun 03 j 04:04	20° 8 00'43	
behind sun begin	-2476 Dec 04 j 20:04 -2476 Dec 04 j 12:01		0 01 21	max. Earth dist.	-2470 Jun 03 j 04.04 -2470 Jun 03 j 15:33		6.26563 AU
behind sun end	-2476 Dec 05 j 04:07			morning rise	-2470 Jun 16 j 12:11		0.20303 AU
max. Earth dist.	-2476 Dec 04 j 04:10		6.10843 AU	morning rise	-2470 Jul 19 j 11:23	0°II	
desc. node	-2476 Dec 16 j 14:17		0.100 13 110	asc. node	-2470 Aug 10 j 23:15	4° Ⅱ 13'43	
morning rise	-2476 Dec 17 j 15:27			retrograde	-2470 Oct 17 j 19:58	10° ∏ 48'29	
	-2476 Dec 28 j 07:09	0° ∡ ¹		opposition	-2470 Dec 16 j 10:21	5° Ⅱ 49'25	0°20'28
retrograde	-2475 Apr 25 j 23:38	17° ∡ 02'31		min. Earth dist.	-2470 Dec 16 j 06:10	5° Ⅱ 50'49	4.31697 AU
opposition	-2475 Jun 25 j 18:37	12° ∡ 04'41	0°-33'-17	direct	-2469 Feb 15 j 08:15	0° Ⅱ 46′04	
min. Earth dist.	-2475 Jun 25 j 19:19	12° ∡ ¹04'28	4.05878 AU	evening set	-2469 Jun 22 j 22:01	18° Ⅱ 52'13	
direct	-2475 Aug 24 j 04:55	7° ∡ 11′23					
evening set	-2475 Dec 26 j 14:19	26° ∡ 18'47		conjunction	-2469 Jul 06 j 08:23	21° Ⅱ 48'34	0°34'47
				minimum elong	-2469 Jul 06 j 08:20	21° Ⅱ 48'32	0°34'50
conjunction	-2474 Jan 08 j 14:14		0°-43'-32	max. Earth dist.	-2469 Jul 06 j 02:31		6.35946 AU
minimum elong	-2474 Jan 08 j 14:11		0°43'37	morning rise	-2469 Jul 19 j 15:44		
max. Earth dist.	-2474 Jan 09 j 03:19		6.02201 AU		-2469 Aug 13 j 12:03	0	
	-2474 Jan 11 j 00:51	0°ප		retrograde	-2469 Nov 17 j 15:33		
morning rise	-2474 Jan 21 j 16:50	2° පි 32'41		opposition	-2468 Jan 16 j 14:45	6° © 58'56	1°15'50
retrograde	-2474 Jun 02 j 12:30			min. Earth dist.	-2468 Jan 17 j 01:58	6°955'16	4.38953 AU
opposition	-2474 Aug 01 j 19:29		-1°-32'-24	direct	-2468 Mar 18 j 13:54	1°955'31	
min. Earth dist.	-2474 Aug 01 j 01:51		4.00166 AU	evening set	-2468 Jul 24 j 04:17		C 40470 ATT
direct	-2474 Sep 29 j 03:43	12° る 52'21 0°≈		max. Earth dist.	-2468 Aug 05 j 01:09	22°9022′16	6.40470 AU
evening set	-2473 Jan 22 j 07:07 -2473 Jan 31 j 19:58	0 ≈ 2°≈15'00		conjunction	-2468 Aug 06 j 05:32	วว∘ธรรฯผร	1°06'11
evening set	-24/3 Jan 31 j 19.36	2 ~1300		minimum elong	-2468 Aug 06 j 05:29		1°06'14
conjunction	-2473 Feb 14 j 03:05	5° ≈ 25'21	-1°-13'-5	morning rise	-2468 Aug 19 j 03:37	25° © 26'58	1 00 14
minimum elong	-2473 Feb 14 j 03:03	5°≈25'20	1°13'09	morning rise	-2468 Sep 09 j 12:44	0°Ω	
max. Earth dist.	-2473 Feb 15 j 16:08	5° ≈ 47'29	5.99826 AU	retrograde	-2468 Dec 17 j 09:50	12° Ω 24'01	
morning rise	-2473 Feb 27 j 13:40	8° ≈ 37'27		opposition	-2467 Feb 15 j 17:47	7° Ω 31'30	1°49'06
C	-2473 Mar 27 j 05:56	15° ≈		min. Earth dist.	-2467 Feb 16 j 19:07	7° Ω 23'21	4.40619 AU
retrograde	-2473 Jul 09 j 14:54	28° ≈ 59'17		direct	-2467 Apr 19 j 08:49	2° Ω 29'14	
min. Earth dist.	-2473 Sep 06 j 06:05	24° ≈ 04'48	4.01550 AU		-2467 Jul 30 j 12:35	15° Ω	
opposition	-2473 Sep 07 j 12:08	23° ≈ 54'37	-1°-56'-29	evening set	-2467 Aug 24 j 10:16	20° Ω 17'57	
direct	-2473 Nov 04 j 10:50	18° ≈ 58'51		max. Earth dist.	-2467 Sep 04 j 10:08	22° Ω 43′01	6.39029 AU
	-2472 Jan 31 j 22:50	0° ∀				_	
evening set	-2472 Mar 08 j 22:50	8° ₩ 18'09		conjunction	-2467 Sep 06 j 03:57		1°18'54
				minimum elong	-2467 Sep 06 j 03:57		1°18'56
conjunction	-2472 Mar 22 j 13:11	11° ¥ 29′25	-1°-14'-48	morning rise	-2467 Sep 18 j 18:59	25° Ω 53'00	
minimum elong	-2472 Mar 22 j 13:13	11° ∺ 29′26	1°14'51		-2467 Oct 07 j 21:21	0° m	
max. Earth dist.	-2472 Mar 24 j 13:51	11° 米 57'59	6.04721 AU	retrograde	-2466 Jan 17 j 19:12	13° Mp 02'13	1050104
morning rise	-2472 Apr 05 j 05:57	14°) 41'47 0° ℃		opposition	-2466 Mar 19 j 13:28	8° Mp 10'40	1°52'24
	-2472 Jun 19 j 18:36			min. Earth dist.	-2466 Mar 20 j 20:47	8° Mp 00'41	4.36250 AU
retrograde	-2472 Aug 13 j 07:25 -2472 Oct 07 j 08:28	4° Υ 28'26 30° Ŗℋ		direct evening set	-2466 May 21 j 02:42 -2466 Sep 24 j 09:22	3° Mp 10'31 21° Mp 08'22	
opposition	-2472 Oct 07 j 08:28		-1°-36'-17	max. Earth dist.	-2466 Oct 05 j 04:31	21 11/08 22 23° M) 33'36	6.32011 AU
min. Earth dist.	-2472 Oct 11 j 20:00 -2472 Oct 10 j 14:47		4.09423 AU	max. Lattii Uist.	2700 OCI 03 J 04.31	25 III 5550	0.52011 AU
direct	-2472 Dec 09 j 08:00		1.07 123 110	conjunction	-2466 Oct 06 j 23:10	23° m 57'36	1°09'27
	-2471 Feb 08 j 08:47	0° Υ		minimum elong	-2466 Oct 06 j 23:10	-	1°09'27
evening set	-			morning rise	-2466 Oct 19 j 11:22	26° Mp 46'16	•
Č	1 3			Č	-2466 Nov 03 j 02:04	0∘ <u>⊽</u>	
conjunction	-2471 Apr 28 j 11:30		0°-49'-6	retrograde	-2465 Feb 19 j 16:51	14° ≏ 31'18	
minimum elong	-2471 Apr 28 j 11:33	16° Ƴ 31'31	0°49'06	opposition	-2465 Apr 21 j 17:03	9° ॒ 39'01	1°23'13
max. Earth dist.	-2471 Apr 30 j 05:18		6.14889 AU	min. Earth dist.	-2465 Apr 22 j 22:28	9° ჲ 29'40	4.26957 AU
morning rise	-2471 May 12 j 06:33	19° Ƴ 40′09		direct	-2465 Jun 22 j 13:58	4° £ 41'41	

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 39 Attention, astronomical year style is used: The year -2465 in astronomical counting style is the year 2466 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	ne year -2465	in astronomical cou	nting style is the year 2			
evening set	-2465 Oct 25 j 21:25			evening set	-2459 Apr 19 j 15:40	18° Ƴ 11′28	
max. Earth dist.	-2465 Nov 06 j 01:44	25° ≏ 33'14	6.21232 AU				
				conjunction	-2459 May 03 j 10:16		0°-44'-1
conjunction	-2465 Nov 07 j 11:36		0°39'03	minimum elong	-2459 May 03 j 10:20		0°44'01
minimum elong	-2465 Nov 07 j 11:38		0°39'03	max. Earth dist.	-2459 May 05 j 00:20		6.16108 AU
morning rise	-2465 Nov 20 j 02:04			morning rise	-2459 May 17 j 05:23		
	-2465 Nov 25 j 10:02	0°M			-2459 Jun 11 j 08:07	0°8	
. 1	-2464 Feb 14 j 06:22	15°M		retrograde	-2459 Sep 20 j 10:46		00 241 40
retrograde	-2464 Mar 25 j 11:10	17°M25'32		opposition	-2459 Nov 18 j 21:29	8° 8 06'02	0°-34'-48
•,•	-2464 May 05 j 03:39		0026125	min. Earth dist.	-2459 Nov 18 j 03:33	8° 8 12'07	4.21983 AU
opposition	-2464 May 25 j 12:17			direct	-2458 Jan 17 j 15:20	3° 8 03'59	
min. Earth dist.	-2464 May 26 j 05:03		4.15558 AU	avanina aat	-2458 Apr 24 j 09:46		
direct	-2464 Jul 25 j 03:32	7°ጤ36'02 15°ጤ		evening set	-2458 May 24 j 22:18	21 032 12	
desc. node	-2464 Oct 05 j 03:38 -2464 Oct 27 j 07:24			conjunction	-2458 Jun 07 j 14:50	240\24122	00 11 22
evening set	-2464 Nov 26 j 17:39			minimum elong	-2458 Jun 07 j 14:50		0°01'31
evening set	-2404 NOV 20 J 17.39	20 1161932		behind sun begin	-2458 Jun 07 j 06:31		0 01 31
conjunction	-2464 Dec 09 j 12:06	20°M 10'58	0° 5' 6	behind sun end	-2458 Jun 07 j 23:10		
minimum elong	-2464 Dec 09 j 12:05		0°05'11	max. Earth dist.	-2458 Jun 08 j 08:06		6.27713 AU
behind sun begin	3		0 03 11	morning rise	-2458 Jun 21 j 05:28		0.27713710
behind sun end	-2464 Dec 09 j 19:54	29°M24'32		asc. node	-2458 Jun 21 j 10:06		
max. Earth dist.	-2464 Dec 09 j 00:50	29°M13'20	6.09858 AU	use. House	-2458 Jul 02 j 05:09	0°II	
man zam ust.	-2464 Dec 12 j 07:55	0°×7'	0.09000110	retrograde	-2458 Oct 22 j 03:42		
morning rise	-2464 Dec 22 j 08:09	2° × ⁷ 21'30		opposition	-2458 Dec 20 j 19:33		0°29'03
retrograde	-2463 May 01 j 02:18	21° ∡ ¹58′08		min. Earth dist.	-2458 Dec 20 j 16:26		4.32701 AU
opposition	-2463 Jun 30 j 19:25	16° ∡ 759'49	0°-42'-32	direct	-2457 Feb 19 j 19:51	5° Ⅱ 18'09	
min. Earth dist.	-2463 Jun 30 j 18:24	17° ∡ ¹00'09	4.05141 AU	evening set	-2457 Jun 27 j 12:24		
direct	-2463 Aug 29 j 02:22	12° ∡ ¹06'38		3			
	-2463 Dec 26 j 02:42	ರ°0		conjunction	-2457 Jul 10 j 21:27	26° Ⅱ 17'57	0°40'02
evening set	-2463 Dec 31 j 10:19	1°る15'33		minimum elong	-2457 Jul 10 j 21:24		0°40'06
•	V			max. Earth dist.	-2457 Jul 10 j 11:37	26° Ⅱ 12'33	6.36728 AU
conjunction	-2462 Jan 13 j 10:56	4° ට 22'14	0°-48'-49	morning rise	-2457 Jul 24 j 03:41	29° Ⅱ 11'57	
minimum elong	-2462 Jan 13 j 10:52	4° る 22'12	0°48'54		-2457 Jul 27 j 20:13	0°€	
max. Earth dist.	-2462 Jan 14 j 01:47	4° ට 31'06	6.01754 AU	retrograde	-2457 Nov 21 j 23:56	16°9519'42	
morning rise	-2462 Jan 26 j 14:42	7° る 30'38		opposition	-2456 Jan 20 j 23:20	11° © 24'53	1°22'02
retrograde	-2462 Jun 07 j 12:42	27° る 48'04		min. Earth dist.	-2456 Jan 21 j 13:14	11° 5 20'20	4.39466 AU
opposition	-2462 Aug 06 j 19:39			direct	-2456 Mar 23 j 02:32	6° ॐ 21'31	
min. Earth dist.	-2462 Aug 05 j 23:32		4.00084 AU	evening set	-2456 Jul 28 j 14:22		
direct	-2462 Oct 04 j 00:50	17° る 52'09		max. Earth dist.	-2456 Aug 09 j 08:48	26° © 45'50	6.40645 AU
	-2461 Jan 05 j 05:31	0° ≈					
evening set	-2461 Feb 05 j 19:40	7° ≈ 15'14		conjunction	-2456 Aug 10 j 14:33		1°09'12
				minimum elong	-2456 Aug 10 j 14:31		1°09'14
conjunction	-2461 Feb 19 j 03:53		-1°-15'-5	morning rise	-2456 Aug 23 j 11:24		
minimum elong	-2461 Feb 19 j 03:51	10°≈25'53	1°15'08		-2456 Aug 24 j 04:26	0°N	
max. Earth dist.	-2461 Feb 20 j 19:20	10° ≈ 49′26	6.00104 AU		-2456 Nov 17 j 11:42		
morning rise	-2461 Mar 04 j 15:17	13°≈38'14		retrograde	-2456 Dec 21 j 16:30		
	-2461 Mar 10 j 10:10	15° ≈		•,•	-2455 Jan 25 j 02:28		1051105
	-2461 May 24 j 09:37	0°) {		opposition	-2455 Feb 20 j 03:21		1°51'27
retrograde	-2461 Jul 14 j 14:29	3° ¥ 57′56		min. Earth dist.	-2455 Feb 21 j 04:54		4.40448 AU
min Earth diat	-2461 Sep 04 j 02:46	30°R≈ 20°2 202104	4.02162 ATT	direct	-2455 Apr 23 j 18:21 -2455 Jul 12 j 04:10	6° Ω 53'20	
min. Earth dist. opposition	-2461 Sep 11 j 03:52 -2461 Sep 12 j 09:08	29°≈03'04 28°≈53'07	4.02163 AU -1°-56'-16	evening set	-2455 Aug 28 j 18:09		
direct	-2461 Nov 09 j 09:28	28 ≈5507 23°≈56'56	-1 -30-10	max. Earth dist.	-2455 Sep 08 j 16:51		6.38495 AU
direct	-2460 Jan 11 j 05:57	25 ≈ 30 30		max. Earth dist.	-2433 Sep 08 j 10.31	27 8600 30	0.36493 AU
evening set	-2460 Mar 13 j 23:30	13° ¥ 15′05		conjunction	-2455 Sep 10 j 10:58	27° A 30'08	1°18'54
evening set	2400 Will 15 j 25.50	13 /(13 03		minimum elong	-2455 Sep 10 j 10:58	27° Ω 30'08	1°18'56
conjunction	-2460 Mar 27 j 14:44	16° ¥ 26'21	-1°-12'-45	minimum ciong	-2455 Sep 21 j 18:24	0° my	1 10 50
minimum elong	-2460 Mar 27 j 14:47	16° ¥ 26'23	1°12'46	morning rise	-2455 Sep 23 j 01:17	0° m) 16'58	
max. Earth dist.	-2460 Mar 29 j 15:35	16° X 54'56	6.05619 AU	retrograde	-2454 Jan 22 j 06:58	17° m) 29'15	
morning rise	-2460 Apr 10 j 08:12	19° X 34'37	2.00017110	opposition	-2454 Mar 24 j 02:09	12° mp 37'42	1°50'12
	-2460 May 27 j 20:51	19 γ (3837		min. Earth dist.	-2454 Mar 25 j 10:27	12° m) 27'25	4.35353 AU
retrograde	-2460 Aug 18 j 00:34	9° Υ 19'19		direct	-2454 May 25 j 15:23	7° mp 37'53	
min. Earth dist.	-2460 Oct 15 j 07:20	4° Υ 24'24	4.10519 AU	evening set	-2454 Sep 28 j 17:21	25° mp 37'18	
opposition	-2460 Oct 16 j 12:20	4° Υ 14'30	-1°-30'-34	max. Earth dist.	-2454 Oct 09 j 11:29		6.30805 AU
11	-2460 Nov 23 j 01:05	30° ₹	-			4	
direct	-2460 Dec 14 j 01:35	29° ¥ 15′08		conjunction	-2454 Oct 11 j 06:54	28° Mp 26'56	1°06'22
	-2459 Jan 04 j 07:42	0° Υ		minimum elong	-2454 Oct 11 j 06:57		1°06'21
	*			- C	~	-	

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 40

•	ical year style is used: The		•				
rittention, astronom	-2454 Oct 18 j 03:54	0° ⊡	in astronomical co.	morning rise	-2448 Apr 15 j 14:54		•
morning rise	-2454 Oct 23 j 19:15	° - 16'08		morning rise	-2448 May 08 j 18:58	0°Υ	
retrograde	-2453 Feb 24 j 08:51	19° 2 07'16		retrograde	-2448 Aug 22 j 20:30		
opposition	-2453 Apr 26 j 10:28	14° ⊆ 14'40	1°16'43	min. Earth dist.	-2448 Oct 20 j 03:59	9° Υ 23'37	4.12035 AU
min. Earth dist.	-2453 Apr 27 j 14:11	14° £ 05'50	4.25497 AU	opposition	-2448 Oct 21 j 08:01	9° Υ 14'02	-1°-24'-1
direct	-2453 Jun 27 j 03:38	9° £ 17'38	4.234)/ AO	direct	-2448 Dec 19 j 01:04	4° Υ 14'16	-1 -24-1
evening set	-2453 Oct 30 j 08:20			evening set	-2447 Apr 24 j 17:22		
evening set	-2453 Nov 09 j 14:41	0°M		evening set	-244/ Apr 24 j 17.22	23 1 00 29	
	-2433 NOV 09 J 14.41	O IIG		conjunction	-2447 May 08 j 12:10	26°℃13'56	0°-38'-31
conjunction	-2453 Nov 11 j 23:02	0°M32'36	0°33'29	minimum elong	-2447 May 08 j 12:10		0°38'30
minimum elong	-2453 Nov 11 j 23:04	0°M32'38	0°33'28	max. Earth dist.	-2447 May 10 j 02:02		6.17912 AU
max. Earth dist.	-2453 Nov 10 j 16:32	0°M14'58	6.19653 AU	morning rise	-2447 May 10 j 02:02 -2447 May 22 j 06:48		0.17912 AU
morning rise	-2453 Nov 10 j 10:32 -2453 Nov 24 j 13:58	3°M27'40	0.19033 AU	morning risc	-2447 May 25 j 04:03	0° 8	
morning risc	-2452 Jan 18 j 05:22	15°M			-2447 Aug 12 j 21:49		
retrograde	-2452 Mar 30 j 11:26	22°M14'19		retrograde	-2447 Sep 24 j 23:19		
opposition	-2452 May 30 j 11:12	17°M19'09	0°17'03	renograde	-2447 Nov 06 j 21:57		
min. Earth dist.	-2452 May 31 j 02:40	17°ML14'10		opposition	-2447 Nov 23 j 10:59		0°-25'-51
mm. Latin dist.	-2452 Jun 18 j 05:32	15°RM	4.13737 AO	min. Earth dist.	-2447 Nov 22 j 18:06		4.23907 AU
direct	-2452 Jul 18 j 03:32 -2452 Jul 29 j 22:44	13 KIIG 12°M24'41		direct	-2446 Jan 22 j 08:55	7° 8 48'07	4.23907 AU
desc. node	-2452 Sep 06 j 11:36	14°M43'26		direct	-2446 Apr 04 j 16:19	_	
desc. Hode	-2452 Sep 00 j 11:30 -2452 Sep 08 j 19:30			asc. node	-2446 May 01 j 15:53		
	-2452 Nov 26 j 07:21	13 llG 0° x 7		evening set	-2446 May 29 j 17:34		
avanina aat	,	0° x ° 1° x ⁷ 12′02		evening set	-2446 May 29 j 17:34	20-011-12	
evening set	-2452 Dec 01 j 10:26	1 × 12 02		conjunction	-2446 Jun 12 j 09:04	200 🗸 12121	0°04'40
agniumation	2452 Dec. 14 : 05:21	4° ∡ 13'24	00 11! 24		-2446 Jun 12 j 09:04		0°04'43
conjunction minimum elong	-2452 Dec 14 j 05:31 -2452 Dec 14 j 05:30	4° х 13′24 4° х 13′24		minimum elong behind sun begin	-2446 Jun 12 j 00:57		0 0443
behind sun begin	-2452 Dec 13 j 23:41	4 x ·13 24 4° x ⁷ 09'58	0 11 38	behind sun begin	-2446 Jun 12 j 17:08		
behind sun begin	•						6 20605 ATT
max. Earth dist.	-2452 Dec 14 j 11:18	4° ⋌ 16'49 4° ⋌ 107'49	6.08375 AU	max. Earth dist.	-2446 Jun 12 j 21:51	0° Ⅱ	6.29605 AU
morning rise	-2452 Dec 13 j 20:04	7° ∡ 16'03	0.08373 AU		-2446 Jun 15 j 23:04		
-	-2452 Dec 27 j 02:42	7 x ·16 03 27° x 700′14		morning rise	-2446 Jun 25 j 22:47 -2446 Oct 26 j 11:07	2° Ⅱ 12'23	
retrograde opposition	-2451 May 06 j 05:29 -2451 Jul 05 j 22:11	27 × 00 14 22° × 01'20	0°-51'-42	retrograde opposition	-2446 Oct 26 j 11.07 -2446 Dec 25 j 04:15		0°37'20
min. Earth dist.	-2451 Jul 05 j 17:40	22° х 01′20′ 22° х 02′49	4.03927 AU	min. Earth dist.	-2446 Dec 25 j 03:54		4.34416 AU
direct	-2451 Sep 02 j 23:51	17°×708'10	4.03927 AU	direct	-2445 Feb 24 j 10:15	9° I 47′05	4.54410 AU
direct	-2451 Sep 02 j 23:51 -2451 Dec 08 j 23:53	17 メ ・08 10		evening set	-2445 Jul 02 j 00:19		
evening set	-2450 Jan 05 j 09:49	6° る 20'35		evening set	-2445 Jul 12 j 04:35	0°9	
evening set	2430 Jun 03 j 07.47	0 02033			2443 Jul 12 j 04.33	0 0	
conjunction	-2450 Jan 18 j 11:34	9° ප 28'06	0°-53'-53	conjunction	-2445 Jul 15 j 08:13	0°941'21	0°44'56
minimum elong	-2450 Jan 18 j 11:31	9° ට 28'04	0°53'58	minimum elong	-2445 Jul 15 j 08:10	0°541'19	0°45'00
max. Earth dist.	-2450 Jan 19 j 06:51	9° ට 39'39	6.00917 AU	max. Earth dist.	-2445 Jul 14 j 20:36	0°535'00	6.38124 AU
morning rise	-2450 Jan 31 j 16:18	12° ට 37'18		morning rise	-2445 Jul 28 j 12:52	3°534'11	
8	-2450 Apr 29 j 15:20	0° ≈		retrograde	-2445 Nov 26 j 02:31	20°537'12	
retrograde	-2450 Jun 12 j 19:22	2°≈58'29		opposition	-2444 Jan 25 j 05:05	15°5642'48	1°27'32
ronogrado	-2450 Jul 27 j 01:13	30°R₹		min. Earth dist.	-2444 Jan 25 j 20:17	15° © 37'51	4.40462 AU
opposition	-2450 Aug 11 j 23:32	27° ප 555'46	-1°-43'-17	direct	-2444 Mar 27 j 10:46	10°539'34	
min. Earth dist.	-2450 Aug 11 j 02:26	28° ප 02'51	3.99727 AU	evening set	-2444 Aug 01 j 21:01	28° © 27'22	
direct	-2450 Oct 09 j 03:31	23° ට 01'50			-2444 Aug 08 j 23:13	0°Ω	
	-2450 Dec 15 j 19:41	0° ≈		max. Earth dist.	-2444 Aug 13 j 10:17		6.41135 AU
evening set	-2449 Feb 11 j 00:05	12° ≈ 26'15					
S	-2449 Feb 21 j 18:43			conjunction	-2444 Aug 14 j 19:48	1° Ω 16'51	1°11'41
				minimum elong	-2444 Aug 14 j 19:46	1° Ω 16'50	1°11'44
conjunction	-2449 Feb 24 j 09:24	15° ≈ 37'21	-1°-16'-33	morning rise	-2444 Aug 27 j 15:36	4° Ω 04'51	
minimum elong	-2449 Feb 24 j 09:23	15° ≈ 37'20	1°16'37	3	-2444 Oct 21 j 15:55	15° Ω	
max. Earth dist.	-2449 Feb 26 j 03:35	16° ≈ 02'27	6.00252 AU	retrograde	-2444 Dec 25 j 21:50	21° Ω 01'13	
morning rise	-2449 Mar 09 j 21:55	18° ≈ 50'04		opposition	-2443 Feb 24 j 09:21	16° Ω 09'04	1°53'03
<i>3</i>	-2449 Apr 29 j 13:42	0°) €		min. Earth dist.	-2443 Feb 25 j 13:43	15° Ω 59'59	4.40401 AU
retrograde	-2449 Jul 19 j 17:03	9°) 07′21			-2443 Mar 05 j 10:40		
min. Earth dist.	-2449 Sep 16 j 03:30	4°) 12'51	4.02837 AU	direct	-2443 Apr 28 j 02:42	11° Ω 07'12	
opposition	-2449 Sep 17 j 10:12	4°) €02'24	-1°-55'-9		-2443 Jun 20 j 00:25		
**	-2449 Oct 22 j 10:47	30°R≈		evening set	-2443 Sep 01 j 21:52		
direct	-2449 Nov 14 j 10:04	29° ≈ 05'52		S	-2443 Sep 06 j 18:09	0° m)	
	-2449 Dec 07 j 12:40	0°) €		max. Earth dist.	-2443 Sep 12 j 18:13	1° mp 19'39	6.37888 AU
evening set	-2448 Mar 19 j 04:54				r -j	4	
-	•			conjunction	-2443 Sep 14 j 14:07	1° m 43'57	1°18'28
conjunction	-2448 Apr 01 j 20:48	21°) 33′27	-1°-10'-4	minimum elong	-2443 Sep 14 j 14:07	1° m 43'57	1°18'30
minimum elong	-2448 Apr 01 j 20:51		1°10'04	morning rise	-2443 Sep 27 j 03:50	4° m 30'49	
max. Earth dist.	-2448 Apr 03 j 20:43		6.06768 AU	retrograde	-2442 Jan 26 j 14:12		
	-				-		

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2442 in astronomical counting style is the year 2443 BCE in historical counting style. -2442 Mar 28 j 11:20 16° m 55'16 1°47'29 conjunction -2436 Apr 07 i 04:39 26° \(\frac{1}{2}\)44'33 -1°-6'-47 opposition -2442 Mar 29 j 19:28 16° mp 45'02 -2436 Apr 07 j 04:42 26° **★** 44'35 1°06'48 min. Earth dist. 4 34220 AU minimum elong -2442 May 29 j 21:54 11° m 55'46 -2436 Apr 09 j 06:13 27° ¥ 13'22 direct max. Earth dist. 6.08202 AU 29° m 57'56 -2442 Oct 02 j 22:04 -2436 Apr 20 j 23:02 29° **₭** 56'00 evening set morning rise $0^{\circ}\Upsilon$ -2436 Apr 21 j 05:58 -2442 Oct 03 j 01:45 0ಂರ max. Earth dist. 2°**≏**23'57 -2436 Aug 27 j 17:05 19°**Y**20′18 -2442 Oct 13 j 16:49 6.29230 AU retrograde -2436 Oct 25 j 01:03 14°**Y**25′07 min. Earth dist. 4.13798 AU conjunction -2442 Oct 15 j 11:34 2°**£**48'10 1°02'59 opposition -1°-16'-48 9°Υ15'40 minimum elong -2442 Oct 15 j 11:36 2°**₽**48'11 1°02'59 direct -2436 Dec 24 j 00:54 28°**Y**02'54 morning rise -2442 Oct 27 j 23:59 5°**£**38'04 evening set -2435 Apr 29 j 19:27 retrograde -2441 Mar 01 j 01:15 23°**♀**37'00 -2435 May 08 j 11:09 0°8 opposition -2441 May 01 j 01:40 18°**△**44'13 1°09'56 min. Earth dist. -2441 May 02 j 05:47 18°**೨**35'15 4.23555 AU conjunction -2435 May 13 j 13:58 1°**8**09'26 0°-32'-42 direct -2441 Jul 01 j 15:56 13°**♀**47'32 minimum elong -2435 May 13 j 14:00 1°809'27 0°32'41 -2441 Oct 25 j 01:21 0°M max. Earth dist. -2435 May 15 j 00:04 1°828'42 6.19824 AU evening set -2441 Nov 03 j 17:59 2°M13'01 morning rise -2435 May 27 j 08:22 4°815'37 max. Earth dist. -2441 Nov 15 j 03:17 4°M51'26 6.17516 AU -2435 Jul 17 j 23:42 15°8 retrograde -2435 Sep 29 j 11:42 22°837'16 conjunction -2441 Nov 16 j 09:09 5°**M**₀08'47 0°27'50 min. Earth dist. -2435 Nov 27 j 10:01 17°840'49 4.25767 AU minimum elong -2441 Nov 16 j 09:11 5°ML08'48 0°27'48 opposition -2435 Nov 28 j 00:49 17°\begin{align*} 35'50 0°-16'-40 \end{align*} morning rise -2441 Nov 29 j 00:59 8°ML05'07 -2435 Dec 18 j 08:38 15°R8 -2441 Dec 30 i 00:07 15°M direct -2434 Jan 27 i 03:58 12°\(233'14\) retrograde -2440 Apr 04 i 10:18 27° ML02'05 -2434 Mar 08 i 10:51 15°8 opposition -2440 Jun 04 j 09:18 22° ML06'29 0°07'41 asc. node -2434 Mar 10 j 16:12 15°**8**15'40 min. Earth dist. -2440 Jun 04 j 21:42 22°Ml02'29 4.11573 AU -2434 May 30 j 14:27 Π °0 desc. node -2440 Jul 18 j 15:38 17° M 36'58 -2434 Jun 03 j 12:55 0°**I**I51'40 evening set -2440 Aug 03 j 14:10 17° ML12'18 direct -2440 Nov 09 j 13:16 -2434 Jun 17 j 03:39 3°**Ⅱ**51'45 0°10'49 0°×7 conjunction -2440 Dec 06 j 03:53 6°**₹**06'00 -2434 Jun 17 j 03:37 3°**Ⅲ**51'44 0°10'53 evening set minimum elong -2434 Jun 16 j 21:26 3°**Ⅱ**48'20 behind sun begin -2440 Dec 19 j 00:00 9°**₹**08'40 0°-17'-55 -2434 Jun 17 j 09:49 3°**Ⅱ**55′08 conjunction behind sun end 9°**х** 08′40 -2434 Jun 17 j 13:51 minimum elong -2440 Dec 18 j 23:58 0°17'59 max. Earth dist. 3°**Ⅲ**57'22 6.31277 AU -2440 Dec 18 j 19:07 9°**∡**05'47 max. Earth dist. 6.06391 AU -2434 Jun 30 j 16:04 6°**Ⅱ**50'34 morning rise -2440 Dec 31 j 22:12 12° ₹ 12'40 -2434 Oct 30 j 19:17 24°**Ⅲ**19'53 morning rise retrograde -2439 Apr 04 j 10:19 -2434 Dec 29 j 13:49 19°**Ц**22'27 0°ಕ opposition 0°45'32 -2439 May 11 j 12:55 -2434 Dec 29 j 15:41 19°**Д**21'50 4.35773 AU retrograde 2°る06'28 min. Earth dist. -2433 Mar 01 j 00:07 14°**Ⅲ**18'55 -2439 Jun 17 j 16:25 30°R ✓ direct opposition -2439 Jul 11 j 02:26 27°**尽**07'01 -1°00'-31 -2433 Jun 26 j 01:13 0ಂತ min. Earth dist. -2439 Jul 10 j 19:58 27°**尽** 09'09 4.02317 AU evening set -2433 Jul 06 j 13:49 2°9515'41 direct -2439 Sep 08 j 00:07 22° ₹ 13'55 -2439 Nov 19 j 06:42 0°る conjunction -2433 Jul 19 j 20:18 5°**©**09'12 0°49'43 -2438 Jan 10 j 11:40 11°**♂**31'23 -2433 Jul 19 j 20:15 5°99'10 0°49'46 evening set minimum elong max. Earth dist. -2433 Jul 19 j 03:39 5°900'06 6.39048 AU -2438 Jan 23 j 14:32 14°₹39'54 0°-58'-32 -2433 Aug 01 j 23:46 8°901'08 conjunction morning rise -2438 Jan 23 j 14:29 14°₹39'52 0°58'37 -2433 Nov 30 j 10:12 25°501'12 minimum elong retrograde -2438 Jan 24 i 14:05 14°る54'01 -2432 Jan 29 i 13:39 20°507'11 1°32'48 max. Earth dist. 5.99826 AU opposition -2438 Feb 05 j 20:36 17°る50'10 morning rise min. Earth dist. -2432 Jan 30 i 07:41 20°501'19 4.40920 AU -2438 Apr 02 j 06:40 0°≈ direct -2432 Mar 31 j 22:35 15°504'00 retrograde -2438 Jun 18 i 03:19 8°≈15'30 -2432 Jul 23 j 23:29 $0^{\circ}\Omega$ min. Earth dist. -2438 Aug 16 j 05:09 3°≈20'31 3.99313 AU -2432 Aug 06 j 06:14 2°**Q**50′56 evening set -2438 Aug 17 j 05:24 3°≈12'21 -1°-47'-38 max. Earth dist. -2432 Aug 17 j 17:18 5°**Ω**20'57 6.41082 AU opposition -2438 Sep 12 j 07:17 30°Rる direct -2438 Oct 14 j 06:21 28° ₹ 18'11 5°**Ω**39'59 1°13'56 conjunction -2432 Aug 19 j 04:06 -2438 Nov 15 j 02:52 0°≈ minimum elong -2432 Aug 19 j 04:04 5°**Ω**39'58 1°13'59 -2437 Feb 04 j 15:51 15°≈ morning rise -2432 Aug 31 j 22:40 8°**Ω**27'32 -2437 Feb 16 j 07:27 17°≈44'01 -2432 Oct 02 j 02:29 15°**Ω** evening set retrograde -2432 Dec 30 j 05:46 $25^{\circ}\Omega 25'05$ -2437 Mar 01 j 17:48 20°≈55'28 -1°-17'-23 -2431 Feb 28 j 19:43 20°Ω33'08 conjunction opposition 1°54'12 -2437 Mar 01 j 17:47 20°≈55'28 -2431 Mar 02 j 00:33 20°**Ω**23'54 4.39859 AU minimum elong 1°17'27 min. Earth dist. -2431 May 02 j 12:22 max. Earth dist. -2437 Mar 03 j 13:56 21°≈21'43 6.00520 AU direct 15°**Ω**31'33 -2431 Aug 21 j 18:11 morning rise -2437 Mar 15 j 07:23 24°≈08'29 0°m -2437 Apr 09 j 18:44 0°**)**€ evening set -2431 Sep 06 j 06:07 3° m 21'39 retrograde -2437 Jul 24 j 20:10 14° **★** 22'15 max. Earth dist. -2431 Sep 17 j 00:11 5° To 44'286.36889 AU min. Earth dist. -2437 Sep 21 j 05:15 9°**¥**27'44 4.03736 AU opposition -2437 Sep 22 j 12:39 9°**∺**17'02 -1°-53'-2 conjunction -2431 Sep 18 j 21:35 6° Mp 09'41 1°17'37 -2437 Nov 19 j 14:13 4°**₩**19'58 -2431 Sep 18 j 21:36 6° M 09'42 1°17'37 direct minimum elong -2436 Mar 24 j 11:52 23°**₭** 33'46 -2431 Oct 01 j 10:57 8° m 56'47 evening set morning rise

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, Attention, astronomical year style is used: The year -2430 in astronomical counting style is the year 2431 BCE in historical counting style. -2430 Jan 31 j 05:32 26° Mp 17'49 evening set -2424 Mar 29 j 15:04 28° + 34'34 retrograde -2430 Apr 02 j 02:20 21° m 26'11 1°44'03 -2424 Apr 04 j 19:09 $0^{\circ}\Upsilon$ opposition min. Earth dist. -2430 Apr 03 j 11:34 21° mp 15'37 4.32816 AU -2430 Jun 03 j 11:48 16° **m** 27'01 -2424 Apr 12 j 08:10 1°**Y**44'45 -1°-3'-7 direct conjunction -2424 Apr 12 j 08:13 1°**Y**44'47 -2430 Sep 16 j 18:04 1°03'08 0∘ଫ minimum elong -2430 Oct 07 j 08:09 -2424 Apr 14 j 07:20 2°**Υ**12'03 evening set 4°**£**32'26 max. Earth dist. 6.09936 AU max. Earth dist. -2430 Oct 18 j 03:47 -2424 Apr 26 j 02:58 4°Y55'33 6°**£**59'31 6.27548 AU morning rise -2424 Sep 01 j 07:41 24°\bar{\gamma}10'26 retrograde -1°-9'-18 -2424 Oct 30 j 19:57 19°**Ƴ**06′19 conjunction -2430 Oct 19 j 21:46 7°**2**23'23 0°59'03 opposition minimum elong -2430 Oct 19 j 21:48 7°**₽**23'24 0°59'03 min. Earth dist. -2424 Oct 29 j 17:55 19°**Υ**15'11 4.15637 AU morning rise -2430 Nov 01 j 10:26 10°**2**14'06 direct -2424 Dec 28 j 20:34 14°**Y**05'42 -2423 Apr 22 j 01:42 retrograde -2429 Mar 05 j 21:32 28°**£**21'02 0°8 -2423 May 04 j 17:12 opposition -2429 May 05 j 22:49 23°**≗**27'57 1°02'19 evening set 2°**8**48'16 min. Earth dist. -2429 May 07 j 00:23 23°**2**19'47 4.21715 AU direct -2429 Jul 06 j 07:29 18°**£**31'41 conjunction -2423 May 18 j 11:34 5°**8**53'56 0°-26'-53 -2429 Oct 07 j 19:49 0°M minimum elong -2423 May 18 j 11:36 5°**8**53'57 0°26'52 evening set -2429 Nov 08 j 08:59 7°M01'36 max. Earth dist. -2423 May 19 j 18:40 6°811'27 6.21633 AU max. Earth dist. -2429 Nov 19 j 22:28 9°**™**43′04 6.15700 AU morning rise -2423 Jun 01 j 05:18 8°**8**59'05 -2423 Jun 28 j 22:43 15°8 conjunction -2429 Nov 21 j 00:43 9°**™**58'23 0°21'41 retrograde -2423 Oct 03 j 22:18 27°812'17 minimum elong -2429 Nov 21 j 00:44 9°M58'24 0°21'38 opposition -2423 Dec 02 j 10:59 22°**8**11'29 morning rise -2429 Dec 03 j 17:17 12°M 55'50 min. Earth dist. -2423 Dec 01 i 23:08 22°815'27 4.27376 AU -2429 Dec 12 i 16:49 15°M asc. node -2422 Jan 19 j 01:17 17°**8**24'20 -2428 Mar 04 i 01:06 0°×7 direct -2422 Jan 31 j 19:16 17°**8**08'42 retrograde -2428 Apr 09 i 16:08 2°×101'53 -2422 May 13 j 22:36 $\mathbb{I}^{\circ 0}$ -2428 May 16 j 10:54 30°RML -2422 Jun 08 j 04:48 5°**Ⅲ**23'41 evening set desc. node -2428 May 27 j 19:18 28° ML42'40 -2428 Jun 09 j 12:49 27° ML05'48 0°-2'-13 -2422 Jun 21 j 18:31 8°**Ⅲ**22'51 0°16'44 opposition conjunction -2428 Jun 09 j 23:14 27°**M**.02'25 -2422 Jun 21 j 18:30 8°**Ⅱ**22'50 0°16'48 min. Earth dist. 4.09933 AU minimum elong 6.32554 AU -2428 Aug 08 j 13:45 22°M11'54 -2422 Jun 21 j 23:52 8°**П**25'47 direct max. Earth dist. -2428 Oct 21 j 00:43 0° ₹ -2422 Jul 05 j 05:57 11°**Ⅲ**20'43 morning rise -2428 Dec 11 j 01:35 11°**尽**09'42 -2422 Nov 04 j 01:36 28°**Ц**45'01 retrograde evening set -2421 Jan 02 j 21:16 23°**Ц**48'08 0°53'16 opposition -2428 Dec 23 j 22:34 14° ₹ 13'19 0°-24'-24 -2421 Jan 03 j 01:35 23°**I**I46'43 4.36655 AU conjunction min. Earth dist. -2428 Dec 23 j 22:32 14° ₹ 13'17 0°24'29 -2421 Mar 05 j 10:48 18°**Д**44'33 minimum elong direct -2428 Dec 23 j 21:57 14° ₹ 12'56 6.05102 AU -2421 Jun 09 j 03:07 max. Earth dist. 0ಂತಾ -2427 Jan 05 j 21:52 17°**х** 18'20 -2421 Jul 11 j 01:00 morning rise evening set 6°9540'00 -2427 Mar 05 j 17:57 0°₹ max. Earth dist. -2421 Jul 23 j 11:21 9°522'29 6.39469 AU retrograde -2427 May 16 j 20:08 7°る18'26 opposition -2427 Jul 16 j 08:53 2°る18'28 -1°-9'-5 conjunction -2421 Jul 24 j 06:21 9°**©**32'52 0°54'07 min. Earth dist. -2427 Jul 15 j 22:37 2°る21'51 4.01559 AU minimum elong -2421 Jul 24 j 06:18 9°**©**32'50 0°54'10 -2427 Aug 03 j 14:10 30°R ⊀ -2421 Aug 06 j 08:25 12°524'06 morning rise -2427 Sep 13 j 01:52 27° ₹25'24 -2421 Dec 04 j 16:56 29°523'08 direct retrograde -2427 Oct 22 j 22:39 -2420 Feb 02 j 21:30 24°529'35 1°37'29 0°궁 opposition -2426 Jan 15 j 15:24 16° ₹ 44'41 -2420 Feb 03 j 17:22 24°523'09 4.40885 AU evening set min. Earth dist. -2420 Apr 05 i 07:54 19°526'37 direct -2426 Jan 28 i 19:10 19°₹53'41 -1°-2'-49 conjunction -2420 Jul 06 i 20:46 $0^{\circ}\Omega$ -2426 Jan 28 j 19:07 19°る53'39 1°02'53 minimum elong evening set -2420 Aug 10 j 15:12 7°**Ω**14'17 max. Earth dist. -2426 Jan 29 j 22:06 20°る09'50 5.99648 AU max. Earth dist. -2420 Aug 21 j 21:39 9°**Ω**42'07 6.40573 AU -2426 Feb 11 i 02:18 23°**⋜**04'27 morning rise -2426 Mar 13 j 03:35 conjunction -2420 Aug 23 j 11:53 $10^{\circ}\Omega$ 03'05 $1^{\circ}15'44$ -2426 Jun 23 j 09:02 13°≈29'59 -2420 Aug 23 j 11:52 10° Ω03'04 1°15'46 retrograde minimum elong -2426 Aug 21 j 08:05 -2420 Sep 05 j 05:42 $12^{\circ}\Omega$ 50'30 min. Earth dist. 8°≈35'10 3.99751 AU morning rise -2420 Sep 15 j 05:03 15°**Ω** opposition -2426 Aug 22 j 10:09 8°**≈**26'22 -1°-51'-6 direct -2426 Oct 19 j 10:48 3°≈31'49 retrograde -2419 Jan 03 j 17:01 29° Ω50'47 -2425 Jan 17 j 15:18 15°≈ opposition -2419 Mar 05 j 06:55 24° **Ω**59'01 1°54'42 -2425 Feb 21 j 13:03 22°≈56'03 min. Earth dist. -2419 Mar 06 j 13:19 24°**Ω**49'17 4.38938 AU evening set direct -2419 May 06 j 23:29 $19^{\circ} \Omega 57'42$ -2425 Mar 07 j 00:30 26°≈07'30 -1°-17'-38 -2419 Aug 04 j 07:48 conjunction 0° m -2425 Mar 07 j 00:30 26°≈07'30 -2419 Sep 10 j 14:56 minimum elong 1°17'41 evening set 7° m 50'14 -2419 Sep 21 j 09:46 10° m 13'54 max. Earth dist. -2425 Mar 08 j 23:57 26°≈35'38 6.01518 AU max. Earth dist. 6.35630 AU morning rise -2425 Mar 20 j 14:46 29°≈20'21 -2425 Mar 23 j 10:23 0°**)**€ conjunction -2419 Sep 23 j 06:05 10° m 38'36 1°16'16 retrograde -2425 Jul 29 j 20:36 19°**米**27'46 minimum elong -2419 Sep 23 j 06:07 10° m 38'37 1°16'17 min. Earth dist. -2425 Sep 26 j 04:37 14° **★** 33'08 4.05180 AU morning rise -2419 Oct 05 j 18:59 13° Mp 26'03 -2425 Sep 27 j 11:44 14°**米**22'31 -1°-50'-6 -2418 Jan 11 j 23:09 0∘**⊽** opposition -2425 Nov 24 j 15:02 9°**米**25'03 -2418 Feb 04 j 20:40 0°**£**52'56 direct retrograde

Planetary Phenomena of Jupiter from -2900 through -2400 (UT), Astrodienst AG 7-Dez-2017 14:40, page 43 Attention, astronomical year style is used: The year -2418 in astronomical counting style is the year 2419 BCE in historical counting style.

Attention, astronom	nical year style is used: Tl	he year -2418	in astronomical co	unting style is the year	2419 BCE in historical of	counting style	
	-2418 Feb 28 j 20:48			retrograde	-2413 Aug 03 j 16:51		
opposition	-2418 Apr 06 j 18:53			min. Earth dist.	-2413 Oct 01 j 00:58		
min. Earth dist.	-2418 Apr 08 j 02:45		4.31311 AU	opposition	-2413 Oct 02 j 08:26		-1°-46'-28
direct	-2418 Jun 08 j 00:31	-		direct	-2413 Nov 29 j 13:36		
	-2418 Aug 29 j 13:12	0∘ ত			-2412 Mar 19 j 03:14	0° Υ	
evening set	-2418 Oct 11 j 19:32	9° £ 11'16	6 0 5 0 0 6 1 X X	evening set	-2412 Apr 03 j 16:52	3° Ƴ 31'45	
max. Earth dist.	-2418 Oct 22 j 16:46	11° £ 39'51	6.25926 AU		2412 4 17:10.24	600044104	00 501 5
. ,.	2410.0 + 24:00.05	100 0 00150	0054142	conjunction	-2412 Apr 17 j 10:34	6° Y 41'31	
conjunction	-2418 Oct 24 j 09:05		0°54'42	minimum elong	-2412 Apr 17 j 10:38	6° Y 41'33	0°59'05
minimum elong	-2418 Oct 24 j 09:08		0°54'41	max. Earth dist.	-2412 Apr 19 j 08:13	7° Y 07'50 9° Y 51'41	6.11442 AU
morning rise	-2418 Nov 05 j 22:09	0°M		morning rise retrograde	-2412 May 01 j 05:29 -2412 Sep 06 j 00:05	9° γ 51 41 28° γ 58'11	
retrograde	-2417 Jan 23 j 16:51 -2417 Mar 10 j 21:30	3°ML09'08		min. Earth dist.	-2412 Sep 06 j 00.03 -2412 Nov 03 j 11:25		4.17195 AU
renograde	-2417 Mai 10 j 21:30 -2417 Apr 26 j 23:12			opposition	-2412 Nov 03 j 11:23		
opposition	-2417 Apr 20 j 23:12 -2417 May 10 j 21:33		0°54'09	direct	-2411 Jan 02 j 16:20		-1 -1 -28
min. Earth dist.	-2417 May 10 j 21:39		4.20070 AU	uncet	-2411 Apr 04 j 12:15	0° 8	
direct	-2417 Jul 11 j 02:49		4.20070710	evening set	-2411 May 09 j 14:22	7° 8 32'15	
ancer	-2417 Sep 17 j 16:47	0°M		evening sec	2111 May 07 j 11.22	7 032 13	
evening set	-2417 Nov 13 j 00:54			conjunction	-2411 May 23 j 08:29	10° 8 37'11	0°-20'-54
e venning see	211, 110, 15 , 00.5 .	11 11005 12		minimum elong	-2411 May 23 j 08:30		0°20'53
conjunction	-2417 Nov 25 j 17:16	14°M50'52	0°15'20	max. Earth dist.	-2411 May 24 j 12:19		6.23126 AU
minimum elong	-2417 Nov 25 j 17:17		0°15'18	morning rise	-2411 Jun 06 j 01:43		
behind sun begin	•			Č	-2411 Jun 11 j 23:24		
behind sun end	-2417 Nov 25 j 20:07	14°M52'32			-2411 Sep 04 j 15:46	0° I I	
max. Earth dist.	-	14°ML37'43	6.14190 AU	retrograde	-2411 Oct 08 j 07:27	1° Ⅱ 47'25	
	-2417 Nov 26 j 08:53	15° M ₊		_	-2411 Nov 10 j 18:39	30° ₹ 8	
morning rise	-2417 Dec 08 j 10:35	17° M 49'18		asc. node	-2411 Nov 29 j 02:20	27° 8 49'26	
	-2416 Feb 03 j 19:03	0° ∡ ¹		opposition	-2411 Dec 06 j 21:26	26° 8 47'06	0°01'16
desc. node	-2416 Apr 06 j 02:49	6° ∡ ¹55'45		min. Earth dist.	-2411 Dec 06 j 11:07	26° 8 50'34	4.28682 AU
retrograde	-2416 Apr 14 j 18:56	7° ∡ ¹02'51		direct	-2410 Feb 05 j 08:48	21° 8 44'07	
opposition	-2416 Jun 14 j 16:01	2° ₹ 106'15	0°-12'-8		-2410 Apr 25 j 06:07	$\Pi^{\circ}0$	
min. Earth dist.	-2416 Jun 14 j 23:01	2° ≯ 03'58	4.08690 AU	evening set	-2410 Jun 12 j 21:03	9° Ⅱ 56'31	
	-2416 Jul 01 j 10:35						
direct	-2416 Aug 13 j 11:41	27°M12'36		conjunction	-2410 Jun 26 j 09:48		
	-2416 Sep 24 j 15:44	0° ∡ ¹		minimum elong	-2410 Jun 26 j 09:46		
evening set	-2416 Dec 15 j 23:12	16° ∡ 13'04		max. Earth dist.	-2410 Jun 26 j 11:18		6.33583 AU
		_		morning rise	-2410 Jul 09 j 20:03		
conjunction	-2416 Dec 28 j 20:54				-2410 Sep 23 j 11:08	0°©	
=	-2416 Dec 28 j 20:52			retrograde	-2410 Nov 08 j 10:22		
max. Earth dist.	-2416 Dec 28 j 23:50		6.04214 AU	•,•	-2410 Dec 24 j 17:02		1000140
morning rise	-2415 Jan 10 j 21:15			opposition	-2409 Jan 07 j 05:54		1°00'48
. 1	-2415 Feb 13 j 06:01	0°る 12°る28'01		min. Earth dist.	-2409 Jan 07 j 13:04		4.37344 AU
retrograde	-2415 May 22 j 02:11	7° る 2801	-1°-17'-3	direct	-2409 Mar 09 j 23:14	23° ய 1200	
opposition min. Earth dist.	-2415 Jul 21 j 13:43 -2415 Jul 21 j 00:57	7°る2726 7°る31'40	4.01115 AU	evening set	-2409 May 20 j 13:39 -2409 Jul 15 j 13:13		
direct	-2415 Sep 18 j 04:34	7 3 3140 2° 3 34'14	4.01113 AU	evening set	-2409 Jul 13 j 13.13	11 30028	
evening set	-2414 Jan 20 j 17:27			conjunction	-2409 Jul 28 j 17:21	13°658'42	0°58'16
evening set	2414 Juli 20 j 17.27	21 03-21		minimum elong	-2409 Jul 28 j 17:18		0°58'19
conjunction	-2414 Feb 02 j 22:22	25°₹03'46	-1°-6'-35	max. Earth dist.	-2409 Jul 27 j 18:44		6.39753 AU
minimum elong	-2414 Feb 02 j 22:19			morning rise	-2409 Aug 10 j 18:16		0.000,000
max. Earth dist.	-2414 Feb 04 j 06:00		5.99680 AU	morning rise	-2409 Oct 19 j 10:50	0°Ω	
morning rise	-2414 Feb 16 j 06:24			retrograde	-2409 Dec 09 j 01:20	3° Ω 47'45	
5 5	-2414 Feb 23 j 16:18	0° ≈			-2408 Jan 29 j 18:39		
	-2414 May 10 j 08:44	15° ≈		opposition	-2408 Feb 07 j 07:02		1°41'43
retrograde				min. Earth dist.	-2408 Feb 08 j 04:16		4.40791 AU
	-2414 Aug 16 j 23:36			direct	-2408 Apr 09 j 18:08		
min. Earth dist.	-2414 Aug 26 j 09:39	13° ≈ 44'48	4.00281 AU		-2408 Jun 16 j 18:17	$0^{\circ}\Omega$	
opposition	-2414 Aug 27 j 12:34	13° ≈ 35'42	-1°-53'-40	evening set	-2408 Aug 15 j 00:56	11° Ω 39'59	
direct	-2414 Oct 24 j 12:26	8° ≈ 40′50		max. Earth dist.	-2408 Aug 26 j 06:40		6.40119 AU
	-2414 Dec 27 j 16:44	15° ≈					
evening set	-2413 Feb 26 j 17:03	28° ≈ 03′25		conjunction	-2408 Aug 27 j 20:44	14° Ω 28'35	1°17'09
	-2413 Mar 06 j 22:44	0°)		minimum elong	-2408 Aug 27 j 20:43		1°17'11
					-2408 Aug 30 j 05:53		
conjunction	-2413 Mar 12 j 05:14		-1°-17'-19	morning rise	-2408 Sep 09 j 13:30		
minimum elong	-2413 Mar 12 j 05:15	1°) 14'48	1°17'21		-2408 Nov 14 j 18:21	0° m)	
max. Earth dist.	-2413 Mar 14 j 04:18	1°) 42′36	6.02467 AU	retrograde	-2407 Jan 08 j 04:25	4° m 18'40	
morning rise	-2413 Mar 25 j 20:29	4° ¥ 27'33			-2407 Mar 05 j 12:10	307R&L	

				ounting style is the year	2408 BCE in historical of		
opposition	-2407 Mar 09 j 19:42		1°54'35	direct	-2402 Oct 01 j 16:58		
min. Earth dist. direct	-2407 Mar 11 j 02:17 -2407 May 11 j 11:25	$29^{\circ} \Omega 1/18$ $24^{\circ} \Omega 26'12$	4.381/4 AU	direct	-2402 Oct 29 j 09:55 -2402 Nov 26 j 05:00	13°≈42'04 15°≈	
direct	-2407 Jul 14 j 13:48	0°M)			-2401 Feb 18 j 14:00	0° ∀	
evening set	-2407 Sep 15 j 00:26	12° m) 20'13		evening set	-2401 Mar 03 j 18:10	3°) €03'40	
max. Earth dist.	-2407 Sep 25 j 17:57		6.34622 AU	S	J		
				conjunction	-2401 Mar 17 j 07:25	6°) 15′07	-1°-16'-26
conjunction	-2407 Sep 27 j 14:56	15°Mp08'45	1°14'31	minimum elong	-2401 Mar 17 j 07:27	6° 升 15′08	1°16'29
minimum elong	-2407 Sep 27 j 14:57	15° Mp 08'46	1°14'32	max. Earth dist.	-2401 Mar 19 j 07:16	6°) 43′19	6.03281 AU
morning rise	-2407 Oct 10 j 03:41	17° m 56'32		morning rise	-2401 Mar 30 j 23:19	9°) (27'48	
retrograde	-2407 Dec 09 j 12:00 -2406 Feb 09 j 13:44	0° ჲ 5° ჲ 28'30		retrograde min. Earth dist.	-2401 Aug 08 j 13:32 -2401 Oct 05 j 20:57	29°\(\frac{1}{2}23'51\) 24°\(\frac{1}{2}28'52\)	4.07502 AU
opposition	-2406 Apr 11 j 12:13	0° £ 36'38	1°35'09	opposition	-	24° X 18'41	-1°-42'-12
min. Earth dist.	-2406 Apr 12 j 19:24	0° £ 26'43	4.30120 AU	direct	-2401 Dec 04 j 10:59	19° ¥ 20'17	
	-2406 Apr 16 j 07:34	30°R, Mp			-2400 Mar 01 j 08:32	$0^{\circ}\Upsilon$	
direct	-2406 Jun 12 j 15:30	25°M 38'21		evening set	-2400 Apr 08 j 16:32	8° Y 24'08	
	-2406 Aug 07 j 01:57	0∘ ⊽					
evening set	-2406 Oct 16 j 06:37	13° ≏ 49'10		conjunction	-2400 Apr 22 j 10:42		0°-54'-43
max. Earth dist.	-2406 Oct 27 j 07:18	16° ≏ 20'07	6.24674 AU	minimum elong	-2400 Apr 22 j 10:45		0°54'43
	2406 0-4 29 : 20-26	160 0 41122	0950102	max. Earth dist.	-2400 Apr 24 j 06:52		6.12648 AU
conjunction minimum elong	-2406 Oct 28 j 20:26 -2406 Oct 28 j 20:28	16° £ 41'22 16° £ 41'24	0°50'03 0°50'01	morning rise	-2400 May 06 j 05:49 -2400 Jul 23 j 05:46	14° Ƴ 43'19 0° ႘	
morning rise	-2406 Nov 10 j 09:40	10° ⊆ 41°24 19° ⊆ 33'34	0 30 01	retrograde	-2400 Sep 10 j 13:11	3° 8 42'44	
	-2406 Dec 29 j 18:20	0°M		renograde	-2400 Oct 30 j 00:14	_	
retrograde	-2405 Mar 15 j 18:24	7°M54'45		min. Earth dist.	-2400 Nov 08 j 01:27		4.18450 AU
opposition	-2405 May 15 j 19:24	3° ™ 00'57	0°45'43	opposition	-2400 Nov 09 j 00:16	28° Ƴ 39'24	0°-53'-23
min. Earth dist.	-2405 May 16 j 17:10	2°M53'59	4.18837 AU				
	-2405 Jun 10 j 04:58	30° ₽ Ω					
direct	-2405 Jul 15 j 20:18	28° £ 05'31					
	-2405 Aug 20 j 02:26	0°M					
evening set	-2405 Nov 10 j 08:55 -2405 Nov 17 j 15:37	15°M 16°M41'04					
evening set	-2403 NOV 17 J 13.37	דט ודטוו					
conjunction	-2405 Nov 30 j 08:22	19° M 39'25	0°09'01				
minimum elong	-2405 Nov 30 j 08:23		0°08'59				
behind sun begin	-2405 Nov 30 j 01:29						
behind sun end	-2405 Nov 30 j 15:16						
max. Earth dist.	-2405 Nov 29 j 12:17		6.13078 AU				
morning rise	-2405 Dec 13 j 02:33	22°M38'42					
desc. node	-2404 Jan 14 j 20:17 -2404 Feb 15 j 15:58	0° ₰ 6° ₰ 06'17					
retrograde	-2404 Peb 13 j 13:38 -2404 Apr 19 j 20:28						
opposition	-2404 Jun 19 j 17:15	7° ₹ 01'26	0°-21'-46				
min. Earth dist.	-2404 Jun 19 j 21:38	7° ∡ ¹00'00	4.07777 AU				
direct	-2404 Aug 18 j 09:35	2° ∡ ¹07'56					
evening set	-2404 Dec 20 j 18:28	21° √ 10′11					
_		=					
conjunction	-2403 Jan 02 j 17:07						
minimum elong	-2403 Jan 02 j 17:05		0°36'41				
max. Earth dist. morning rise	-2403 Jan 03 j 00:46 -2403 Jan 15 j 18:17		6.03587 AU				
morning fise	-2403 Jan 15 j 18:17 -2403 Jan 26 j 23:54	2/°×'21'41 0°る					
retrograde	-2403 May 27 j 06:14						
opposition	-2403 Jul 26 j 15:22		-1°-24'-13				
min. Earth dist.	-2403 Jul 26 j 01:04	12° る 33'48	4.00860 AU				
direct	-2403 Sep 23 j 03:30	7° る 35'46					
evening set	-2402 Jan 25 j 17:07	26° る 56'30					
ė vė	2402 F 1 07:22 12	000-0545	10.05.44				
conjunction	-2402 Feb 07 j 22:49	0°≈06'15					
minimum al	-2402 Feb 07 j 22:46 -2402 Feb 07 j 12:22	0°≈06'13 0°≈	1°09'48				
minimum elong	2702 FCU U/ J 12.22		5.99786 AU				
	-2402 Feb 09 i 07:25	()°≈≈25°45					
max. Earth dist.	-2402 Feb 09 j 07:25 -2402 Feb 21 j 08:00	0°≈25'45 3°≈17'47	3.99780 AU				
minimum elong max. Earth dist. morning rise	-2402 Feb 09 j 07:25 -2402 Feb 21 j 08:00 -2402 Apr 15 j 12:13	3° ≈ 17'47	3.99780 AO				
max. Earth dist.	-2402 Feb 21 j 08:00	3° ≈ 17'47	3.99100 AU				
max. Earth dist. morning rise	-2402 Feb 21 j 08:00 -2402 Apr 15 j 12:13	3°≈17'47 15°≈ 23°≈41'34	4.00763 AU				

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2400 in astronomical counting style is the year 2401 BCE in historical counting style. -2400 Mar 01 i 08:32 $0^{\circ}\Upsilon$ retrograde -2395 Jan 12 j 14:34 8° **m** 44'43-2400 Apr 08 j 16:32 8°**Y**24'08 -2395 Mar 14 j 07:27 opposition 3° m 53'04 1°53'47 evening set -2395 Mar 15 j 14:18 min. Earth dist. 3° Mp 43'13 4.37469 AU -2400 Apr 22 j 10:42 11° Υ 33'35 0°-54'-43 -2395 Apr 18 j 07:58 30°R**Ω** conjunction -2395 May 15 j 22:13 -2400 Apr 22 j 10:45 11°**Υ**'33'37 minimum elong 0°54'43 direct 28°**Ω**52'25 -2400 Apr 24 j 06:52 11°**Y**′58'58 -2395 Jun 12 j 15:03 max. Earth dist. 6.12648 AU 0° m -2400 May 06 j 05:49 14°**Y**43'19 morning rise evening set -2395 Sep 19 j 08:28 16° Mp 47'38 -2400 Jul 23 j 05:46 0°8 max. Earth dist. -2395 Sep 30 j 03:14 19° m 12'03 6.33599 AU retrograde -2400 Sep 10 j 13:11 3°**8**42'44 -2400 Oct 30 j 00:14 30°R**Y** conjunction -2395 Oct 01 j 22:42 19° m 36'25 1°12'20 min. Earth dist. -2400 Nov 08 j 01:27 28°**Y**47'09 4.18450 AU minimum elong -2395 Oct 01 j 22:44 19° m 36'26 1°12'21 -2400 Nov 09 j 00:16 28°**Υ**'39'24 -2395 Oct 14 j 11:05 22° m 24'30 opposition 0°-53'-23 morning rise -2399 Jan 07 j 07:55 23°**Y**′38′05 direct -2395 Nov 19 j 01:31 0∘**⊽** -2399 Mar 15 j 02:58 0° 8 retrograde -2394 Feb 14 j 04:55 10°**£**01'37 evening set -2399 May 14 j 10:39 12°**8**14'26 opposition -2394 Apr 16 j 04:25 5°**ഫ**09'33 1°29'52 -2399 May 26 j 18:57 15°**8** min. Earth dist. -2394 Apr 17 j 11:12 4°**£**59'46 4.28811 AU direct -2394 Jun 17 j 05:22 0° 211'39 conjunction -2399 May 28 j 04:19 15°**8**18'41 0°-14'-53 evening set -2394 Oct 20 j 16:48 18° **2**25'01 minimum elong -2399 May 28 j 04:20 15°**8**18'42 0°14'51 max. Earth dist. -2394 Oct 31 j 17:47 20°**£**56'42 6.23178 AU behind sun begin -2399 May 28 j 01:30 15°**8**17'07 behind sun end -2399 May 28 j 07:10 15°**8**20'17 conjunction -2394 Nov 02 j 06:40 21°**2**17'54 max. Earth dist. -2399 May 29 i 03:59 15°**8**31'56 6.24355 AU minimum elong -2394 Nov 02 i 06:42 21° **2**17'55 0°45'05 morning rise -2399 Jun 10 j 20:59 18°\begin{aligned} 22'11 \end{aligned} morning rise -2394 Nov 14 j 20:31 24° \overline{\Omega} 10'56 -2399 Aug 07 i 05:04 Π °0 -2394 Dec 11 i 00:50 0°M asc. node -2399 Oct 09 j 14:52 6°**Ⅱ**20'56 retrograde -2393 Mar 20 j 15:39 12°M39'41 -2399 Oct 12 j 18:17 6°**Ⅲ**21'56 -2393 May 20 j 16:55 retrograde opposition 7°M-45'26 0°36'58 -2399 Dec 11 j 07:27 1°**I**I22'09 0°10'08 -2393 May 21 j 12:42 min Earth dist 7°M39'06 4.17235 AU opposition -2399 Dec 11 j 00:08 -2393 Jul 20 j 13:47 min. Earth dist. 1°**Д**24'36 4.29783 AU direct 2°M50'14 -2399 Dec 21 j 16:09 30°R8 -2393 Oct 24 j 13:01 15°M -2398 Feb 09 j 23:37 26°**8**19'00 -2393 Nov 22 j 06:41 21°M29'31 direct evening set -2398 Apr 01 j 10:57 0°**Ⅱ** -2393 Dec 04 j 08:22 24°ML19'30 max. Earth dist. 6.11529 AU -2398 Jun 17 j 12:43 14°**Ⅲ**29'20 evening set conjunction -2393 Dec 05 j 00:16 24°ML28'51 0°02'36 -2398 Jul 01 j 00:34 17°**Ⅲ**26'54 0°28'17 -2393 Dec 05 j 00:16 24°M28'51 conjunction minimum elong 0°02'33 -2398 Jul 01 j 00:31 17°**Ⅲ**26'53 0°28'20 -2393 Dec 04 j 16:15 24°M24'09 minimum elong behind sun begin -2398 Jun 30 j 23:38 17°**Д**26'23 6.34477 AU -2393 Dec 05 j 08:17 24°M33'32 max. Earth dist. behind sun end morning rise -2398 Jul 14 j 09:35 20°**Ⅲ**23'00 morning rise -2393 Dec 17 j 19:10 27°M29'09 -2398 Aug 30 j 12:54 0°5 desc. node -2393 Dec 26 j 19:38 29°M34'49 retrograde -2398 Nov 12 j 16:51 7°**©**39'13 -2393 Dec 28 j 15:27 0°**尽** -2397 Jan 11 j 14:28 2°**©**43'19 1°07'54 retrograde -2392 Apr 25 j 00:34 16° ₹ 56'54 opposition min. Earth dist. -2397 Jan 11 j 22:40 2°540'38 4.37995 AU -2392 Jun 24 j 19:17 11°**х** 59'16 0°-31'-24 opposition -2397 Feb 02 j 13:38 30°R II -2392 Jun 24 j 21:49 11° ₹ 58'26 4.06419 AU min. Earth dist. direct -2397 Mar 14 j 09:33 27°**Ⅲ**39'47 -2392 Aug 23 j 07:32 7°**尽** 05'54 direct -2397 Apr 23 j 16:32 0°5 -2392 Dec 25 j 16:15 26° ₹11'51 evening set -2397 Jul 20 j 00:47 15°533'00 evening set max. Earth dist. -2397 Aug 01 i 02:52 18°5511'02 6.40101 AU conjunction -2391 Jan 07 i 15:42 29° ₹ 17'41 0°-42'-22 minimum elong -2391 Jan 07 i 15:39 29° ₹17'39 0°42'25 -2391 Jan 08 i 01:25 29° ₹23'29 6.02525 AU conjunction -2397 Aug 02 i 03:36 18°524'34 1°02'03 max. Earth dist. -2397 Aug 02 i 03:34 18°524'32 1°02'07 -2391 Jan 10 j 14:30 0°궁 minimum elong -2397 Aug 15 i 03:15 21°5014'32 -2391 Jan 20 j 18:08 2°る25'10 morning rise morning rise -2397 Sep 26 j 21:54 -2391 Jun 01 j 10:42 22°る38'44 $0^{\circ}\Omega$ retrograde -2397 Dec 13 j 09:57 -2391 Jul 31 j 19:19 17°る37'08 -1°-30'-57 retrograde 8°**Ω**11'58 opposition -2396 Feb 11 j 16:20 3°Ω19'02 1°45'20 -2391 Jul 31 j 01:59 17° ₹42'55 4.00225 AU opposition min. Earth dist. 3°**Ω**11'32 4.40812 AU min. Earth dist. -2396 Feb 12 j 15:35 direct -2391 Sep 28 j 03:37 12°る43'40 -2390 Jan 21 j 22:10 -2396 Mar 10 j 20:39 30°Rூ 0°≈ direct -2396 Apr 14 j 05:59 28°516'26 -2390 Jan 30 j 20:23 2°≈06'32 evening set -2396 May 18 j 19:57 0 $^{\circ}$ Ω -2390 Feb 13 j 03:19 -2396 Aug 14 j 11:11 15°**Ω** conjunction 5°≈16'52 -1°-12'-27 -2390 Feb 13 j 03:17 evening set -2396 Aug 19 j 09:42 16°Ω04'24 minimum elong 5°≈16'51 1°12'30 -2396 Aug 30 j 12:20 18°**Ω**30'37 6.39771 AU -2390 Feb 14 j 15:46 max. Earth dist. max. Earth dist. 5°**≈**38'40 5.99631 AU morning rise -2390 Feb 26 j 13:27 8°**≈**28'55 conjunction -2396 Sep 01 j 04:30 18°Ω52'43 1°18'06 -2390 Mar 26 j 20:32 15°**≈** minimum elong -2396 Sep 01 j 04:29 $18^{\circ}\Omega$ 52'42 1°18'08 retrograde -2390 Jul 08 j 17:28 28°≈52'19 morning rise -2396 Sep 13 j 20:30 21° **Ω**39'43 min. Earth dist. -2390 Sep 05 j 09:12 23°≈57'28 4.01113 AU -2396 Oct 24 j 01:30 opposition -2390 Sep 06 j 13:43 23°≈47'47 -1°-56'-9

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 2

Attention astronom	ical year style is used: The			. //		, 1	ige 2
direct	-2390 Nov 03 j 13:14	-	iii astronomicai co	max. Earth dist.	-2384 Sep 03 j 14:32		
direct	-2389 Jan 31 j 10:53	0°) €		max. Earm dist.	-2364 Sep 03 J 14.32	22 0644 21	0.39012 AU
avanina aat	,			aaniumatian	2204 Can 05: 00:16	220 007126	1°18'34
evening set	-2389 Mar 08 j 23:53	8° ₩ 13'12		conjunction	-2384 Sep 05 j 08:16 -2384 Sep 05 j 08:15		
	2200 M 22:14.05	110 1/24/42	10 141 57	minimum elong			1°18'36
conjunction	-2389 Mar 22 j 14:05		-1°-14'-57	morning rise	-2384 Sep 17 j 23:27		
minimum elong	-2389 Mar 22 j 14:07		1°14'59	. 1	-2384 Oct 07 j 00:16	0° Т р	
max. Earth dist.	-2389 Mar 24 j 15:11	14° H 33'33	6.04111 AU	retrograde	-2383 Jan 16 j 21:59	13° Mp 01'14	1°52'21
morning rise	-2389 Apr 05 j 06:49	14°π3/23 0° Υ		opposition	-2383 Mar 18 j 15:42	8° Mp 09'41	
. 1	-2389 Jun 20 j 02:30			min. Earth dist.	-2383 Mar 20 j 00:24	7° Mp 59'16	4.36771 AU
retrograde	-2389 Aug 13 j 11:38	4° Υ 27'20		direct	-2383 May 20 j 06:44	3° Mp 09'20	
: E 4 E 4	-2389 Oct 07 j 09:42		4.00750 ATT	evening set	-2383 Sep 23 j 12:33	21° Mp 06'00	(2220(AII
min. Earth dist.	-2389 Oct 10 j 17:49	29°) 32'44	4.08750 AU	max. Earth dist.	-2383 Oct 04 j 04:57	23° m 29'35	6.32396 AU
opposition	-2389 Oct 12 j 00:15	29°) 22'21	-1°-37'-2		2202.0 / 06:02.26	220 m 55100	1000140
direct	-2389 Dec 09 j 09:50			conjunction	-2383 Oct 06 j 02:26		1°09'48
	-2388 Feb 08 j 11:59	0° γ		minimum elong	-2383 Oct 06 j 02:29		1°09'48
evening set	-2388 Apr 13 j 20:16	13°°\24'20		morning rise	-2383 Oct 18 j 14:52		
					-2383 Nov 02 j 10:32	0∘ ʊ	
conjunction	-2388 Apr 27 j 14:39	16° Y 33'13	0°-49'-51	retrograde	-2382 Feb 18 j 16:59		
minimum elong	-2388 Apr 27 j 14:42	16° ℃ 33'15	0°49'50	opposition	-2382 Apr 20 j 17:19		1°24'14
max. Earth dist.	-2388 Apr 29 j 08:21	16° Y 57′06	6.14244 AU	min. Earth dist.	-2382 Apr 21 j 23:22		4.27166 AU
morning rise	-2388 May 11 j 09:52	19° Y 42'15		direct	-2382 Jun 21 j 14:39	4° ≙ 37'12	
	-2388 Jun 28 j 21:03	0°8		evening set	-2382 Oct 25 j 00:15		
retrograde	-2388 Sep 15 j 05:28	8° 8 32'48		max. Earth dist.	-2382 Nov 05 j 04:03	25° ≏ 28'40	6.21239 AU
opposition	-2388 Nov 13 j 16:10	3° 8 29'53	0°-44'-47				
min. Earth dist.	-2388 Nov 12 j 19:24	3° 8 36'56	4.20239 AU	conjunction	-2382 Nov 06 j 14:35		0°40'02
	-2388 Dec 12 j 09:31	30° ₹ Υ		minimum elong	-2382 Nov 06 j 14:38		0°40'01
direct	-2387 Jan 12 j 04:59	28° Y 28′16		morning rise	-2382 Nov 19 j 04:52		
	-2387 Feb 12 j 09:23	9° 8			-2382 Nov 24 j 20:18	0° M	
	-2387 May 10 j 06:42	15° 8			-2381 Feb 13 j 23:50	15° ™	
evening set	-2387 May 19 j 08:30	16° 8 59'57		retrograde	-2381 Mar 25 j 13:00	17°M20'53	
					-2381 May 04 j 11:42	15°RM	
conjunction	-2387 Jun 02 j 01:45	20° 8 03'12	0°-8'-43	opposition	-2381 May 25 j 12:34	12°M26'19	0°28'11
minimum elong	-2387 Jun 02 j 01:46	20° 8 03'12	0°08'40	min. Earth dist.	-2381 May 26 j 07:30	12°M20'14	4.15127 AU
behind sun begin	-2387 Jun 01 j 18:36	19° 8 59'14		direct	-2381 Jul 25 j 05:10	7°M31'26	
behind sun end	-2387 Jun 02 j 08:56	20° 8 07'11			-2381 Oct 05 j 14:38	15°M	
max. Earth dist.	-2387 Jun 03 j 00:12	20° 8 15'43	6.26231 AU	desc. node	-2381 Nov 07 j 04:46	21°M45'03	
morning rise	-2387 Jun 15 j 17:26	23° 8 05'31		evening set	-2381 Nov 26 j 21:03	26°M16'37	
	-2387 Jul 18 j 02:32	$\Pi^{\circ}0$					
asc. node	-2387 Aug 19 j 16:27	5° Ⅱ 55'03		conjunction	-2381 Dec 09 j 15:19	29°M17'11	0°-3'-50
retrograde	-2387 Oct 17 j 02:38	10° Ⅱ 56'44		minimum elong	-2381 Dec 09 j 15:19	29°M17'11	0°03'55
opposition	-2387 Dec 15 j 18:02	5° Ⅱ 57'31	0°18'55	behind sun begin	-2381 Dec 09 j 07:21	29°M12'30	
min. Earth dist.	-2387 Dec 15 j 11:40	5° Ⅱ 59'38	4.31593 AU	behind sun end	-2381 Dec 09 j 23:16	29°M21'52	
direct	-2386 Feb 14 j 13:37	0° Ⅱ 54'17		max. Earth dist.	-2381 Dec 09 j 00:51	29°M08'39	6.09438 AU
evening set	-2386 Jun 22 j 03:47	18° Ⅲ 59'59			-2381 Dec 12 j 15:46	0° ∡ ¹	
-	·			morning rise	-2381 Dec 22 j 11:27	2° ∡ 18'54	
conjunction	-2386 Jul 05 j 14:13	21° ∏ 56′21	0°33'44	retrograde	-2380 Apr 30 j 04:07	21° ₹ 56'52	
minimum elong	-2386 Jul 05 j 14:10	21° ∏ 56′20	0°33'47	opposition	-2380 Jun 29 j 21:25	16° ₹ 58'40	0°-40'-44
max. Earth dist.	-2386 Jul 05 j 08:56		6.36079 AU	min. Earth dist.	-2380 Jun 29 j 20:22	16° ₹ 59'01	4.04545 AU
morning rise	-2386 Jul 18 j 21:59			direct	-2380 Aug 28 j 03:28	12° ₹ 05'24	
Č	-2386 Aug 12 j 03:17	0ಂತಾ			-2380 Dec 25 j 05:03	0°ප	
retrograde	-2386 Nov 16 j 23:14			evening set	-2380 Dec 30 j 15:09	1° る 17'09	
opposition	-2385 Jan 15 j 21:38	7°9506'10	1°14'25	8			
min. Earth dist.	-2385 Jan 16 j 08:56	7°502'28	4.39281 AU	conjunction	-2379 Jan 12 j 15:48	4° る 24'08	0°-47'-45
direct	-2385 Mar 18 j 21:49	2°502'41		minimum elong	-2379 Jan 12 j 15:45	4° ට 24'06	0°47'50
evening set	-2385 Jul 24 j 09:27	19° © 52'35		max. Earth dist.	-2379 Jan 13 j 06:47	4°る33'07	6.01048 AU
max. Earth dist.	-2385 Aug 05 j 08:01		6.40948 AU	morning rise	-2379 Jan 25 j 19:18	7° る 32'47	0.010.0110
and			3	retrograde	-2379 Jun 06 j 19:36	7 3 52 47 27° る 52'55	
conjunction	-2385 Aug 06 j 11:06	22°9543'18	1°05'22	min. Earth dist.	-2379 Aug 05 j 05:59	22° る 57'08	3.99321 AU
minimum elong	-2385 Aug 06 j 11:03		1°05'25	opposition	-2379 Aug 06 j 01:00		-1°-36'-58
morning rise	-2385 Aug 19 j 09:23		- 00 20	direct	-2379 Oct 03 j 06:54		. 50 50
	-2385 Sep 09 j 08:50	23 3 32 24		411000	-2378 Jan 03 j 23:36	0°≈	
retrograde	-2385 Dec 17 j 13:02			evening set	-2378 Feb 05 j 02:24	0 ∞ 7°≈23'00	
opposition	-2384 Feb 15 j 22:26	$7^{\circ}\Omega 35'01$	1°48'11	evening set	2570100 05 J 02.24	, ~2300	
min. Earth dist.	-2384 Feb 16 j 22:39	$7^{\circ}\Omega_{27'13}$	4.41182 AU	conjunction	-2378 Feb 18 j 10:28	10° ≈ 33'59	-1°-14'-33
direct	-2384 Apr 18 j 12:47	2° Ω 32'36	7.71102 AU	minimum elong	-2378 Feb 18 j 10:26	10 ≈33 39 10°≈33'58	1°14'36
ancei	-2384 Apr 18 j 12.47			_			
				max Earth diet	-2378 Feb 20 i 02:31	1()°∞57'5/	5 99366 AT
evening set	-2384 Aug 23 j 14:24			max. Earth dist. morning rise	-2378 Feb 20 j 02:31 -2378 Mar 03 j 21:50		5.99366 AU

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 3

Attention, astronomical year style is used: The year -2378 in astronomical counting style is the year 2379 BCE in historical counting style. -2378 Mar 09 i 02:07 15°≈ -2372 Jan 25 j 21:22 15°RΩ -2378 May 22 j 12:02 0°**₩** opposition -2372 Feb 20 j 08:22 $11^{\circ}\Omega$ 58'47 1° 50'39 -2378 Jul 13 j 23:02 4°¥09'08 -2372 Feb 21 j 11:19 11°Ω50'07 4.40963 AU min. Earth dist. retrograde -2372 Apr 23 j 01:02 -2378 Sep 04 j 20:57 30°R≈ direct 6°**Ω**56'34 min. Earth dist. -2372 Jul 11 j 03:10 15°**Ω** -2378 Sep 10 j 10:57 29°≈14'45 4.01539 AU -2372 Aug 27 j 22:55 24°**Ω**44'02 opposition -2378 Sep 11 j 17:42 29°**≈**04'18 -1°-55'-59 evening set direct -2378 Nov 08 j 16:19 24°≈08'16 max. Earth dist. -2372 Sep 07 j 20:54 27° **Ω**08'09 6.38894 AU -2377 Jan 09 j 10:36 0°**)**€ evening set -2377 Mar 14 j 07:49 13°**米**28'03 conjunction -2372 Sep 09 j 16:05 27°Ω31'59 1°18'40 -2372 Sep 09 j 16:05 27° **Ω**31'59 1°18'43 minimum elong conjunction -2377 Mar 27 j 22:49 16° ★ 39'27 -1°-12'-48 -2372 Sep 20 j 20:25 0° M -2377 Mar 27 j 22:52 16°**米** 39'28 -2372 Sep 22 j 06:33 minimum elong 1°12'49 morning rise 0° Mp 18'45-2377 Mar 30 j 00:03 17°**米** 08'18 -2371 Jan 21 j 09:29 17° Mp 29'39 max. Earth dist. 6.05154 AU retrograde morning rise -2377 Apr 10 j 16:17 19°**米**51'53 opposition -2371 Mar 23 j 05:08 12° **m** 38'05 1°50'18 -2377 May 27 j 00:33 $0^{\circ}\Upsilon$ min. Earth dist. -2371 Mar 24 j 13:27 12° m 27'48 4.35611 AU 7° m 38'06 retrograde -2377 Aug 18 j 10:34 9°Y34'27 direct -2371 May 24 j 17:47 opposition -2377 Oct 16 j 22:56 4°**Υ**29'25 -1°-31'-2 evening set -2371 Sep 27 j 22:05 25° Mp 37'32 min. Earth dist. -2377 Oct 15 j 17:19 4°**Υ**39'33 4.10245 AU max. Earth dist. -2371 Oct 08 j 15:29 28° m 02'12 6.30893 AU -2377 Nov 27 j 09:07 30°R**)**€ direct -2377 Dec 14 j 12:18 29° \(\)30'06 conjunction -2371 Oct 10 j 11:47 28° m 27'11 1°06'46 -2377 Dec 31 j 18:04 $0^{\circ}\Upsilon$ minimum elong -2371 Oct 10 j 11:49 28° m 27'13 evening set -2376 Apr 19 j 00:27 18°**Υ**26'26 -2371 Oct 17 i 08:18 0∘**⊽** morning rise -2371 Oct 23 i 00:10 1°**£**16′23 conjunction $-2376 \text{ May } 02 \text{ i } 19:09 \quad 21^{\circ} \Upsilon 34'37 \quad 0^{\circ} -44' -33$ retrograde -2370 Feb 23 i 13:09 19° **2**07'01 -2376 May 02 j 19:12 21°**Y**34'39 0°44'33 opposition -2370 Apr 25 j 12:54 14°**2**14'36 1°17'45 minimum elong -2376 May 04 j 12:41 21°**Υ**58'18 6.16048 AU -2370 Apr 26 j 18:55 14° **2**05'02 4.25398 AU max. Earth dist. min. Earth dist. -2376 May 16 j 14:03 24°Υ42'43 -2370 Jun 26 j 07:33 9°**£**17'25 morning rise direct -2376 Jun 09 j 12:49 evening set -2370 Oct 29 j 13:44 27°**♀**39'12 0°8 -2376 Sep 19 j 20:30 13°823'31 -2370 Nov 08 j 17:42 oom. retrograde -2376 Nov 18 j 08:12 -2370 Nov 09 j 19:08 8°**8**21'00 0°-35'-50 max. Earth dist. opposition min. Earth dist. -2376 Nov 17 j 12:40 8°**8**27'37 4.22131 AU -2370 Nov 11 j 04:25 0°ML33'59 0°34'24 -2375 Jan 17 j 01:06 3°**8**19'04 conjunction direct -2370 Nov 11 j 04:27 -2375 Apr 22 j 14:49 15°**8** 0°M34'01 0°34'23 minimum elong -2375 May 24 j 06:36 21°**8**45'46 -2370 Nov 23 j 19:28 3°M29'11 evening set morning rise -2369 Jan 17 j 06:13 15°M -2375 Jun 06 j 22:54 24°847'53 0°-2'-25 -2369 Mar 30 j 14:52 22°M16'35 conjunction retrograde -2375 Jun 06 j 22:56 24°**8**47'54 minimum elong 0°02'24 opposition -2369 May 30 j 14:31 17° ML21'36 0°18'39 behind sun begin -2375 Jun 06 j 14:37 24°**8**43'19 min. Earth dist. -2369 May 31 j 05:57 17°ML16'38 4.13317 AU behind sun end -2375 Jun 07 j 07:14 24°**8**52'30 -2369 Jun 18 j 17:48 15°RM max. Earth dist. -2375 Jun 07 j 16:21 24°**8**57'34 6.28035 AU direct -2369 Jul 30 j 01:01 12°M27'06 morning rise -2375 Jun 20 j 13:49 27°**8**49'04 -2369 Sep 08 j 14:52 15°M -2375 Jun 28 j 13:14 29°833'59 -2369 Sep 16 j 02:16 15°ML58'10 asc. node desc. node -2375 Jun 30 j 13:06 0°**Ц** -2369 Nov 26 j 05:41 0°×7 -2375 Oct 21 j 12:43 15°**Ⅲ**32'21 -2369 Dec 01 j 17:02 1°**х** 16′55 retrograde evening set -2375 Dec 20 j 05:04 10°**Д**33'38 0°27'42 opposition 4°**х** 18'32 0°-10'-28 min. Earth dist. -2375 Dec 20 i 01:51 10° **I** 34'42 4.33160 AU conjunction -2369 Dec 14 j 12:10 direct -2374 Feb 19 i 06:19 5°**Д**30'13 minimum elong -2369 Dec 14 i 12:09 4°**х** 18'31 0°10'32 -2374 Jun 26 j 19:13 23°**Ⅲ**32'15 evening set behind sun begin -2369 Dec 14 i 05:50 4°**х** 14'47 behind sun end -2369 Dec 14 j 18:29 4°**₹**22'15 -2374 Jul 10 j 04:36 26° **II**27'39 0°39'06 max. Earth dist. -2369 Dec 14 i 02:57 13'04 **ح**°4 6.07879 AU conjunction -2374 Jul 10 j 04:33 26°**Ⅲ**27'37 0°39'09 morning rise -2369 Dec 27 j 09:09 7°**∡**'21'20 minimum elong -2374 Jul 09 j 21:03 26°**Ⅲ**23'31 -2368 May 05 j 13:03 27° ₹07'12 max. Earth dist. 6.37284 AU retrograde -2374 Jul 23 j 10:50 29°**Ⅲ**21'28 -2368 Jul 05 j 03:55 22° ₹ 08'29 0°-50'-10 morning rise opposition -2368 Jul 05 j 00:38 22° ₹ 09'34 4.03408 AU -2374 Jul 26 j 09:55 0ಂತಾ min. Earth dist. -2368 Sep 02 j 06:28 17°**尽** 15'22 retrograde -2374 Nov 21 j 05:23 16°527'32 direct -2373 Jan 20 j 06:29 11°532'34 -2368 Dec 07 j 15:41 1°20'43 0°정 opposition 4.40064 AU min. Earth dist. -2373 Jan 20 j 19:16 11°528'24 -2367 Jan 04 j 17:47 6°**ප**30'04 evening set -2373 Mar 23 j 09:04 direct 6°929'11 -2373 Jul 28 j 20:10 24°517'26 -2367 Jan 17 j 19:24 9°る37'45 0°-52'-59 evening set conjunction -2367 Jan 17 j 19:20 9°る37'43 minimum elong 0°53'04 -2367 Jan 18 j 14:32 9°**⋜**49'13 conjunction -2373 Aug 10 j 20:24 27°507'28 1°08'28 max. Earth dist. 6.00443 AU minimum elong -2373 Aug 10 j 20:22 27°507'27 1°08'30 morning rise -2367 Jan 31 j 00:05 12°る47'10 max. Earth dist. -2373 Aug 09 j 13:26 26°550'34 6.41230 AU -2367 Apr 27 j 12:42 morning rise -2373 Aug 23 j 17:36 29°556'00 retrograde -2367 Jun 12 j 02:55 3°≈09'45 -2373 Aug 24 j 00:59 0 $^{\circ}$ Ω -2367 Jul 27 j 22:18 30°R 궁 -2373 Nov 17 j 03:00 15°**Ω** min. Earth dist. -2367 Aug 10 j 09:08 28°정14'39 3.99362 AU -2373 Dec 21 j 22:26 16° Ω51'11 -2367 Aug 11 j 07:26 28°♂07'10 -1°-42'-17 retrograde opposition

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 4 Attention, astronomical year style is used: The year -2367 in astronomical counting style is the year 2368 BCE in historical counting style.

Attention, astronom	ical year style is used: Tl	he year -2367	in astronomical co	ounting style is the year	2368 BCE in historical	counting style	
direct	-2367 Oct 08 j 10:31	23° る 13'22			-2361 Aug 08 j 07:12	0 $^{\circ}\Omega$	
	-2367 Dec 14 j 02:09	0° ≈		max. Earth dist.	-2361 Aug 13 j 20:37	1° Ω 12'52	6.40998 AU
evening set	-2366 Feb 10 j 08:34	12° ≈ 38'46					
	-2366 Feb 20 j 05:58	15° ≈		conjunction	-2361 Aug 15 j 04:56	1° Ω 30'32	1°11'07
				minimum elong	-2361 Aug 15 j 04:53	1° Ω 30'31	1°11'10
conjunction	-2366 Feb 23 j 17:34	15° ≈ 49′52	-1°-16'-6	morning rise	-2361 Aug 28 j 00:53	4° Ω 18'41	
minimum elong	-2366 Feb 23 j 17:33	15° ≈ 49'51	1°16'10		-2361 Oct 20 j 15:57	15° Ω	
max. Earth dist.	-2366 Feb 25 j 11:35	16° ≈ 14'54	6.00015 AU	retrograde	-2361 Dec 26 j 06:20		
morning rise	-2366 Mar 09 j 05:54	19° ≈ 02'35		opposition	-2360 Feb 24 j 18:19	16° Ω 23'18	1°52'29
	-2366 Apr 27 j 19:16	0° ∀		min. Earth dist.	-2360 Feb 25 j 21:43		4.40283 AU
retrograde	-2366 Jul 19 j 01:17	9° ∺ 20'41			-2360 Mar 06 j 17:35		
opposition	-2366 Sep 16 j 19:28		-1°-54'-54	direct	-2360 Apr 27 j 10:18	11° Ω 21′23	
min. Earth dist.	-2366 Sep 15 j 12:19	4°) €26′13	4.02718 AU		-2360 Jun 17 j 15:01	15° Ω	
	-2366 Oct 24 j 21:37	30°R ≈		evening set	-2360 Sep 01 j 07:43	29° Ω 10'48	
direct	-2366 Nov 13 j 20:01	29° ≈ 19′06			-2360 Sep 05 j 01:10	0° m	
	-2366 Dec 03 j 19:44	0°) €		max. Earth dist.	-2360 Sep 12 j 03:30	1° m 34'10	6.37810 AU
evening set	-2365 Mar 19 j 12:44	18°) ₹35′13					
				conjunction	-2360 Sep 14 j 00:04	1° m 58'51	1°18'18
conjunction	-2365 Apr 02 j 04:36	21°) 46′14	-1°-10'-10	minimum elong	-2360 Sep 14 j 00:04	1° m 58'51	1°18'19
minimum elong	-2365 Apr 02 j 04:38	21°) 46′16	1°10'11	morning rise	-2360 Sep 26 j 14:07	4° m 45'51	
max. Earth dist.	-2365 Apr 04 j 07:04	22° 升 15'42	6.06754 AU	retrograde	-2359 Jan 26 j 00:59	22°Mp01'52	
morning rise	-2365 Apr 15 j 22:22	24° ¥ 58′06		opposition	-2359 Mar 27 j 20:22	17° m 10'18	1°47'33
C	-2365 May 08 j 03:25	$0^{\circ}\mathbf{\Upsilon}$		min. Earth dist.	-2359 Mar 29 j 05:33	16° m 59'44	4.34194 AU
retrograde	-2365 Aug 23 j 05:33	14° Ƴ 31'33		direct	-2359 May 29 j 08:02	12° m/ 10'40	
opposition	-2365 Oct 21 j 17:29	9° Y 26'48	-1°-24'-34		-2359 Oct 01 j 08:52	0∘ <u>⊽</u>	
min. Earth dist.	-2365 Oct 20 j 12:56	9° Υ 36'32	4.12079 AU	evening set	-2359 Oct 02 j 08:35	0° ഫ 13'18	
direct	-2365 Dec 19 j 10:03	4° Υ 27'06	,,	max. Earth dist.	-2359 Oct 13 j 03:11	2° £ 39'11	6.29267 AU
evening set	-2364 Apr 24 j 00:40						0.2,20,110
evening sec	250pr 2, 000	23 11020		conjunction	-2359 Oct 14 j 22:18	3° ჲ 03'36	1°03'15
conjunction	-2364 May 07 j 19:11	26° Y 25'46	0°-39'-8	minimum elong	-2359 Oct 14 j 22:21		1°03'14
minimum elong	-2364 May 07 j 19:14	26° Y 25'47	0°39'07	morning rise	-2359 Oct 27 j 10:48	5° £ 53'31	1 05 14
max. Earth dist.	-2364 May 09 j 08:27	26° Y 46'54	6.17950 AU	retrograde	-2358 Feb 28 j 09:06		
morning rise	-2364 May 21 j 13:59	29° Υ 32'56	0.17730710	opposition	-2358 Apr 30 j 10:06		1°10'38
morning risc	-2364 May 23 j 14:09	0° 8		min. Earth dist.	-2358 May 01 j 13:21		4.23682 AU
	-2364 Aug 10 j 16:06	_		direct	-2358 Jun 30 j 23:37		4.23082 AU
ratra ara da				direct	·	0°ML	
retrograde	-2364 Sep 24 j 07:25			avanina aat	-2358 Oct 23 j 09:51 -2358 Nov 03 j 04:37	2°M27'41	
	-2364 Nov 07 j 22:26		00 261 50	evening set	-2338 NOV 03 J 04.37	2 1162/41	
opposition	-2364 Nov 22 j 20:15				2250 N 15:10 42	50 m 22120	0020120
min. Earth dist.	-2364 Nov 22 j 03:05		4.23918 AU	conjunction	-2358 Nov 15 j 19:43		
direct	-2363 Jan 21 j 18:01	8° 8 00'09		minimum elong	-2358 Nov 15 j 19:45	5°M23'22	
	-2363 Apr 02 j 20:44			max. Earth dist.	-2358 Nov 14 j 14:18	5°M06'14	6.17725 AU
asc. node	-2363 May 08 j 17:33			morning rise	-2358 Nov 28 j 11:23	8°M19'31	
evening set	-2363 May 29 j 00:24	26° 8 22'41			-2358 Dec 28 j 07:46		
				retrograde	-2357 Apr 04 j 19:41		
conjunction	-2363 Jun 11 j 16:09			opposition	-2357 Jun 04 j 17:25		0°08'52
minimum elong	-2363 Jun 11 j 16:09		0°03'50	min. Earth dist.	-2357 Jun 05 j 06:57		4.11852 AU
behind sun begin	-2363 Jun 11 j 07:57			desc. node	-2357 Jul 26 j 00:30		
behind sun end	-2363 Jun 12 j 00:20			direct	-2357 Aug 04 j 00:21	17°M25'17	
max. Earth dist.	-2363 Jun 12 j 06:39	29° 8 31'55	6.29583 AU		-2357 Nov 09 j 00:04	0° ∡ ¹	
	-2363 Jun 14 j 09:16	$\Pi^{\circ}0$		evening set	-2357 Dec 06 j 13:25	6° ≯ 18'12	
morning rise	-2363 Jun 25 j 05:54	2° Ⅲ 23'59					
retrograde	-2363 Oct 25 j 20:01	20° Ⅱ 00'50		conjunction	-2357 Dec 19 j 09:20	9° ,₹ 20'39	0°-17'-3
opposition	-2363 Dec 24 j 13:19	15° Ⅱ 02'45	0°36'02	minimum elong	-2357 Dec 19 j 09:19	9° ∡ ¹20'38	0°17'07
min. Earth dist.	-2363 Dec 24 j 12:27	15° Ⅱ 03'02	4.34353 AU	max. Earth dist.	-2357 Dec 19 j 03:57	9° ∡ 17′27	6.06723 AU
direct	-2362 Feb 23 j 18:34	9° Ⅱ 59'18		morning rise	-2356 Jan 01 j 07:22	12° ₹ 24'24	
evening set	-2362 Jul 01 j 07:56	27° ∏ 59'04			-2356 Apr 02 j 05:23	0°ರ	
	-2362 Jul 10 j 13:50	0ං ව		retrograde	-2356 May 10 j 18:47	2° る 16'10	
					-2356 Jun 18 j 11:42	30°R. ✓	
conjunction	-2362 Jul 14 j 15:59	0° © 53'39	0°44'05	opposition	-2356 Jul 10 j 09:32	27° ∡ 16'51	0°-59'-11
minimum elong	-2362 Jul 14 j 15:56	0° © 53'38	0°44'09	min. Earth dist.	-2356 Jul 10 j 02:34	27° х 19′09	4.02688 AU
max. Earth dist.	-2362 Jul 14 j 03:07	0°946'37	6.38017 AU	direct	-2356 Sep 07 j 07:13	22° х 23'46	
morning rise	-2362 Jul 27 j 21:08	3°5946'42			-2356 Nov 17 j 19:34	0°ರ	
retrograde	-2362 Nov 25 j 12:30	20° © 50'23		evening set	-2355 Jan 09 j 19:29	11° る 39'54	
opposition	-2361 Jan 24 j 14:06	15° © 55'52	1°26'29				
min. Earth dist.	-2361 Jan 25 j 05:50	15° © 50'44	4.40327 AU	conjunction	-2355 Jan 22 j 21:57	14° る 48'05	0°-57'-45
direct	-2361 Mar 27 j 19:51	10°552'32		minimum elong	-2355 Jan 22 j 21:54	14° පි 48'03	0°57'50
evening set	-2361 Aug 02 j 05:37	28°540'50		max. Earth dist.	-2355 Jan 23 j 20:27		6.00191 AU
	-				-		

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2355 in astronomical counting style is the year 2356 BCE in historical counting style. opposition -2355 Feb 05 i 03:40 17°る58'01 -2349 Jan 28 i 23:01 20°521'11 1°31'50 morning rise min. Earth dist. -2355 Mar 31 j 22:23 -2349 Jan 29 j 16:29 20°515'30 4.40475 AU 0°≈≈ -2355 Jun 17 j 08:30 -2349 Apr 01 j 06:35 15°5518'04 8°21'40 direct retrograde -2349 Jul 23 j 03:42 min. Earth dist. -2355 Aug 15 j 11:52 3°≈26'36 3.99620 AU $0^{\circ}\Omega$ -2355 Aug 16 j 11:43 -2349 Aug 06 j 15:58 opposition 3°≈18'34 -1°-46'-43 evening set 3°**Ω**06'34 6.40725 AU -2355 Sep 12 j 15:16 30°Ŗる max. Earth dist. -2349 Aug 18 j 02:23 5°**Ω**36′23 direct -2355 Oct 13 j 14:15 28°**る**24'25 -2349 Aug 19 j 14:02 -2355 Nov 13 j 09:52 0°≈ conjunction 5°**Ω**55'54 1°13'26 -2349 Aug 19 j 14:00 $5^{\circ}\Omega 55'53$ -2354 Feb 03 j 13:02 15°**≈** minimum elong 1°13'29 evening set -2354 Feb 15 j 12:57 17°≈48'51 morning rise -2349 Sep 01 j 09:08 8°**Ω**43'47 -2349 Oct 01 j 03:49 15°**Ω** -2354 Feb 28 j 23:05 21°≈00'04 -1°-17'-4 -2349 Dec 30 j 17:45 25° **Ω**42'25 conjunction retrograde -2348 Feb 29 j 06:01 minimum elong -2354 Feb 28 j 23:05 21°≈00'04 1°17'08 opposition 20°**Ω**50′29 1°53'45 max. Earth dist. -2354 Mar 02 j 20:21 21°≈26'58 6.00750 AU min. Earth dist. -2348 Mar 01 j 10:55 20°**Ω**41'14 4.39641 AU 15°**Ω**48'53 morning rise -2354 Mar 14 j 12:11 24°≈12'47 direct -2348 May 01 j 22:27 -2354 Apr 08 j 15:58 0°**)**€ -2348 Aug 19 j 19:01 retrograde -2354 Jul 24 j 02:17 14° **\(**26'00 evening set -2348 Sep 05 j 17:12 3°m/39'53 min. Earth dist. -2354 Sep 20 j 11:44 9°**₭**31'25 4.03866 AU max. Earth dist. -2348 Sep 16 j 13:40 6° m 03'59 6.36866 AU opposition -2354 Sep 21 j 18:46 9°**¥**20′51 -1°-53'-1 direct -2354 Nov 18 j 20:09 4°**)**€23'56 conjunction -2348 Sep 18 j 09:05 6° m 28'05 1°17'30 evening set -2353 Mar 24 j 16:05 23° ₩ 36'51 minimum elong -2348 Sep 18 j 09:06 6° M 28'06 1°17'31 morning rise -2348 Sep 30 i 22:30 9° m 15'15 conjunction -2353 Apr 07 i 08:27 26° ★ 47'29 -1°-7'-5 retrograde -2347 Jan 30 j 15:03 26° m 35'53 minimum elong -2353 Apr 07 i 08:30 26° **★** 47'31 1°07'07 opposition -2347 Apr 01 i 12:16 21° m 44'19 1°44'11 max. Earth dist. -2353 Apr 09 j 08:38 27°**)** 15'30 6.08195 AU min. Earth dist. -2347 Apr 02 j 20:10 21° m 34'10 4.33023 AU -2353 Apr 21 j 02:51 29° ¥ 58'55 -2347 Jun 02 j 20:52 16° mp 45'11 morning rise direct -2353 Apr 21 j 04:44 $0^{\circ}\Upsilon$ -2347 Sep 14 j 19:52 0∘**⊽** -2353 Aug 27 j 21:48 19°**Υ**24'06 -2347 Oct 06 j 19:35 4°**£**50'07 retrograde evening set -2353 Oct 25 j 06:53 14°**Υ**29'00 4.13659 AU -2347 Oct 17 j 15:22 min. Earth dist. max. Earth dist. 7°**♀**17'11 6.27979 AU -2353 Oct 26 j 10:29 14° Υ 19'35 -1°-17'-40 opposition -2353 Dec 24 j 06:26 9°**Y**19'27 -2347 Oct 19 j 09:05 conjunction 7°**-**40'53 0°59'23 direct -2352 Apr 28 j 23:36 28°**Y**′06'52 minimum elong -2347 Oct 19 j 09:08 7°**-**40'55 0°59'23 evening set -2347 Oct 31 j 21:50 10°**2**31'26 -2352 May 07 j 08:15 0° 8 morning rise -2346 Mar 05 j 07:07 28°**♀**36'05 retrograde -2352 May 12 j 18:12 1°**8**13'31 0°-33'-31 -2346 May 05 j 07:20 23°**♀**43'04 1°03'07 conjunction opposition -2352 May 12 j 18:15 -2346 May 06 j 09:32 23°**2**34'42 4.22339 AU minimum elong 1°**8**13'33 0°33'29 min. Earth dist. -2352 May 14 j 05:03 1°**8**33'14 -2346 Jul 05 j 17:58 18°**£**46'43 max. Earth dist. 6.19564 AU direct morning rise -2352 May 26 j 12:31 4°**8**19'49 -2346 Oct 06 j 03:12 $0^{\circ}M$ -2352 Jul 16 j 17:32 15°**8** evening set -2346 Nov 07 j 18:37 7°M14'39 retrograde -2352 Sep 28 j 19:55 22°843'19 max. Earth dist. -2346 Nov 19 j 08:08 9°M55'50 6.16461 AU -2352 Nov 27 j 08:05 17°**8**41'51 0°-18'-1 opposition min. Earth dist. -2352 Nov 26 j 17:34 17°**8**46'44 4.25405 AU -2346 Nov 20 j 10:15 10°ML11'03 0°22'27 conjunction -2352 Dec 18 j 12:41 15°R8 -2346 Nov 20 j 10:17 10°ML11'04 minimum elong -2351 Jan 26 j 10:44 12°839'22 -2346 Dec 03 j 02:33 13°ML08'04 direct morning rise -2351 Mar 06 j 18:54 15°8 -2346 Dec 11 j 05:00 15°M asc. node -2351 Mar 18 j 14:15 16°829'28 -2345 Mar 02 j 22:14 0°**∡**¹ -2351 May 29 i 06:59 $\Pi^{\circ}0$ retrograde -2345 Apr 09 i 19:58 2°**х** 10′19 evening set -2351 Jun 02 j 18:18 0°**I**58'45 -2345 May 18 i 00:49 30°RM desc. node -2345 Jun 05 j 05:16 27° M 49'35 -2351 Jun 16 j 09:11 3°II59'06 0°09'51 opposition -2345 Jun 09 j 18:35 27° ML 14'20 0°00'-46 conjunction -2351 Jun 16 j 09:10 3°**Ⅱ**59'06 0°09'54 min. Earth dist. -2345 Jun 10 j 04:50 27° ML11'01 4.10770 AU minimum elong -2351 Jun 16 j 02:31 3°**I**I55′26 direct -2345 Aug 08 j 20:21 22°M20'23 behind sun begin behind sun end -2351 Jun 16 j 15:49 4°**Ⅱ**02'45 -2345 Oct 20 j 16:42 0°**∡**¹ 4°**I**104'33 6.30824 AU max. Earth dist. -2351 Jun 16 j 19:03 evening set -2345 Dec 11 j 08:17 11°**尽** 15'22 6°**Ⅱ**58'16 morning rise -2351 Jun 29 j 22:01 -2345 Dec 24 j 04:51 14° ₹ 18'27 0°-23'-22 retrograde -2351 Oct 30 j 03:47 24° **II** 29'48 conjunction -2351 Dec 28 j 22:08 19°**Д**32'15 0°44'12 opposition minimum elong -2345 Dec 24 j 04:49 14° ₹ 18'26 0°23'26 -2351 Dec 28 j 23:34 19°**II**31'47 4.35278 AU -2345 Dec 24 j 02:45 14° **₹** 17'13 6.05908 AU min. Earth dist. max. Earth dist. -2350 Feb 28 j 06:48 14°**Ⅲ**28'43 -2344 Jan 06 j 03:48 17°**尽** 22'57 direct morning rise -2344 Mar 04 j 16:57 0°궁 -2350 Jun 24 j 11:27 0ಂತಾ -2350 Jul 05 j 21:13 7°**る**19'25 evening set 2°9527'04 retrograde -2344 May 15 j 22:23 opposition -2344 Jul 15 j 12:05 2°**る**19'32 -1°-7'-31 conjunction -2350 Jul 19 j 04:10 5°920'58 0°48'53 min. Earth dist. -2344 Jul 15 j 02:59 2°る22'32 4.02219 AU minimum elong -2350 Jul 19 j 04:07 5°920'56 0°48'56 -2344 Aug 02 j 21:38 30°R.✓ max. Earth dist. -2350 Jul 18 j 13:02 5°9512'41 6.38560 AU direct -2344 Sep 12 j 07:47 27°**尽** 26'22 -2350 Aug 01 j 07:55 8°9513'15 -2344 Oct 22 j 01:03 morning rise -2350 Nov 29 j 20:21 25°515'12 -2343 Jan 14 j 18:43 16°₹43'26 retrograde evening set

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2343 in astronomical counting style is the year 2344 BCE in historical counting style. -2343 Jan 27 j 22:16 19°552'05 -1°-1'-58 -2337 Jul 05 j 20:16 $0^{\circ}\Omega$ conjunction -2343 Jan 27 j 22:13 19°る52'03 -2337 Aug 11 j 01:44 minimum elong 1°02'01 evening set 7°**Ω**31'13 -2337 Aug 22 j 10:58 $10^{\circ}\Omega$ 00'30 6.40567 AU -2343 Jan 29 j 00:59 20°る08'05 max. Earth dist. 6.00106 AU max. Earth dist. -2343 Feb 10 j 04:53 23°**궁**02'27 morning rise -2343 Mar 12 j 10:23 0°≈ conjunction -2337 Aug 23 j 22:49 10°Ω20'10 1°15'18 -2337 Aug 23 j 22:47 10°**\O**20'09 13°≈26'18 retrograde -2343 Jun 22 j 11:17 minimum elong 1°15'20 -2337 Sep 05 j 16:45 $13^{\circ}\Omega$ 07'39 min. Earth dist. -2343 Aug 20 j 11:35 8°**≈**31'11 3.99953 AU morning rise -2337 Sep 14 j 08:18 opposition -2343 Aug 21 j 12:21 8°≈22'51 -1°-50'-13 15°**Ω** direct -2343 Oct 18 j 13:27 3°≈28'24 -2337 Dec 26 j 05:12 0° m -2342 Jan 17 j 00:39 15°**≈** retrograde -2336 Jan 04 j 03:11 0° My 07'30evening set -2342 Feb 20 j 14:36 22°≈51'58 -2336 Jan 13 j 01:03 30°R€ -2336 Mar 04 j 17:05 opposition 25°**Ω**15'41 1°54'20 conjunction -2342 Mar 06 j 01:32 26°≈03'15 -1°-17'-25 min. Earth dist. -2336 Mar 05 j 22:39 25°**Ω**06′14 4.39142 AU minimum elong -2342 Mar 06 j 01:32 26°≈03'16 1°17'28 direct -2336 May 06 j 09:30 20°**Ω**14'21 max. Earth dist. -2342 Mar 07 j 22:17 26°**≈**29'48 6.01439 AU -2336 Aug 02 j 08:33 0°m morning rise -2342 Mar 19 j 15:42 29°≈16'04 evening set -2336 Sep 10 j 01:35 8° m 06'08 -2342 Mar 22 j 18:34 0°**)**€ max. Earth dist. -2336 Sep 20 j 19:43 10° m 29'19 6.36023 AU retrograde -2342 Jul 28 j 22:04 19°**米**24'42 min. Earth dist. -2342 Sep 25 j 07:22 14°\(\mathbf{H}\)30'11 4.04844 AU conjunction -2336 Sep 22 j 16:44 10° mp 54'23 1°16'15 opposition -2342 Sep 26 j 14:46 14° **H** 19'29 -1°-50'-23 minimum elong -2336 Sep 22 j 16:45 10° m 54'23 direct -2342 Nov 23 j 17:18 9°**)** €22'06 morning rise -2336 Oct 05 j 05:55 13° mp 41'45 evening set -2341 Mar 29 j 16:51 28° + 32'45 -2335 Jan 08 i 07:31 0°Ω -2341 Apr 04 j 23:57 $0^{\circ}\Upsilon$ retrograde -2335 Feb 04 i 05:56 1°**£**06'45 -2335 Mar 03 i 06:12 30°R m -2341 Apr 12 j 09:58 1°Y43'10 -1°-3'-37 opposition -2335 Apr 06 i 03:29 26° m 15'00 1°40'11 conjunction -2341 Apr 12 j 10:02 1°Υ43'12 1°03'38 min. Earth dist. -2335 Apr 07 j 11:30 26° m 04'49 minimum elong 4.31860 AU -2341 Apr 14 j 09:11 2°Y10'31 6.09398 AU direct -2335 Jun 07 j 10:14 21° m 16'09 max. Earth dist. -2341 Apr 26 j 04:37 4°Υ54'10 -2335 Aug 27 j 19:39 0∘**⊽** morning rise -2341 Sep 01 j 14:37 24°**Y**12'10 -2335 Oct 11 j 04:59 retrograde evening set 9°<u>₽</u>23'18 -2341 Oct 30 j 00:04 19°**Υ**16'38 4.14951 AU max. Earth dist. -2335 Oct 22 j 03:09 11° **£**52'08 min. Earth dist. 6.26585 AU -2341 Oct 31 j 01:23 19°**Υ**'08'00 -1°-10'-26 opposition -2341 Dec 29 j 01:32 14°**Y**07'29 -2335 Oct 23 j 18:42 12°**£**14'40 direct conjunction 0°55'10 -2335 Oct 23 j 18:45 12°**2**14'42 -2340 Apr 20 j 23:10 0° 8 minimum elong 0°55'09 -2340 May 03 j 21:14 2°**8**52'09 -2335 Nov 05 j 07:32 15°**£**05'53 evening set morning rise -2334 Jan 21 j 20:30 0°M -2340 May 17 j 15:44 5°**8**58'13 0°-27'-47 -2334 Mar 10 j 02:30 3°M17'31 conjunction retrograde -2340 May 17 j 15:46 minimum elong 5°**8**58'14 0°27'46 -2334 Apr 27 j 09:27 30°R Ω max. Earth dist. -2340 May 18 j 23:31 6°**8**16'08 6.20859 AU opposition -2334 May 10 j 03:29 28° **2**24'10 0°55'12 morning rise -2340 May 31 j 09:45 9°**8**03'49 min. Earth dist. -2334 May 11 j 03:50 28° **2**16'23 4.20793 AU -2340 Jun 27 j 16:55 15°**8** direct -2334 Jul 10 j 09:39 23°**♀**28'12 retrograde -2340 Oct 03 j 05:47 27°**8**20'26 -2334 Sep 16 j 07:02 -2340 Dec 01 j 18:50 22°**8**19'27 0°-9'-6 -2334 Nov 12 j 08:24 11°ML59'34 opposition evening set min. Earth dist. -2340 Dec 01 j 05:35 22°**8**23'54 4.26605 AU max. Earth dist. -2334 Nov 24 j 00:02 14°M42'35 6.14892 AU asc. node -2339 Jan 26 j 23:51 17°**8**18'18 -2339 Jan 31 j 00:24 17°816'43 conjunction -2334 Nov 25 j 00:25 14°M56'50 0°16'16 direct -2339 May 12 j 10:33 $0^{\circ}\Pi$ minimum elong -2334 Nov 25 i 00:26 14° ML 56'50 evening set -2339 Jun 07 j 11:30 5°**Ⅲ**33'51 behind sun begin -2334 Nov 24 i 23:47 14°M 56'28 behind sun end -2334 Nov 25 i 01:04 14°ML57'13 -2339 Jun 21 i 01:33 conjunction 8°II33'26 0°15'48 -2334 Nov 25 i 05:50 15°M -2339 Jun 21 i 01:31 8°II33'25 0°15'52 -2334 Dec 07 i 17:34 17°ML54'52 minimum elong morning rise max. Earth dist. -2339 Jun 21 j 08:01 8°**Ⅲ**37′00 6.31858 AU -2333 Feb 02 j 16:18 0°×7 -2339 Jul 04 j 13:19 11°**Ⅲ**31'44 retrograde -2333 Apr 14 j 22:06 7°**₹**05'15 morning rise -2339 Nov 03 j 13:02 28°**Д**58'36 desc. node -2333 Apr 15 j 07:27 7°**∡**¹05'15 retrograde -2338 Jan 02 j 07:07 24°**Д**01'34 0°52'03 opposition opposition -2333 Jun 14 j 19:44 2°**₹**08'44 0°-10'-30 2°**∡**¹06'08 min. Earth dist. -2338 Jan 02 j 11:07 24°Д00'15 4.36079 AU min. Earth dist. -2333 Jun 15 j 03:47 4.09289 AU -2338 Mar 04 j 19:48 18°**Ⅲ**58'01 direct -2333 Jul 01 j 23:17 30°RM -2338 Jun 07 j 06:47 0ಂತಾ direct -2333 Aug 13 j 17:33 27°M 14'58 -2338 Jul 10 j 10:08 6°954'54 -2333 Sep 24 j 14:09 evening set 0° ×7 -2333 Dec 16 j 04:01 16° ₹ 13'48 evening set -2338 Jul 23 j 15:51 conjunction 9°9548'04 0°53'22 -2333 Dec 29 j 01:36 19° ₹ 17'51 minimum elong -2338 Jul 23 j 15:48 9°9548'03 0°53'25 conjunction 0°-29'-35 max. Earth dist. -2338 Jul 22 j 21:26 9°**©**38'00 6.39053 AU minimum elong -2333 Dec 29 j 01:34 19° ₹17'50 0°29'40 morning rise -2338 Aug 05 j 18:24 12°539'39 max. Earth dist. -2333 Dec 29 j 04:05 19°**尽** 19'19 6.04658 AU retrograde -2338 Dec 04 j 03:53 29°**©**39'51 morning rise -2332 Jan 11 j 01:31 22° ₹23'21 opposition -2337 Feb 02 j 08:03 24°546'07 1°36'37 -2332 Feb 13 j 10:46 0°ಕ min. Earth dist. -2337 Feb 03 j 02:51 24°540'01 -2332 May 21 j 05:25 12°る26'10 4.40658 AU retrograde -2337 Apr 05 j 17:01 19°5543'04 -2332 Jul 20 j 16:14 7°**♂**25'48 -1°-15'-31 direct opposition

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2332 in astronomical counting style is the year 2333 BCE in historical counting style. 7°る29'29 4.01344 AU min. Earth dist. -2332 Jul 20 j 05:07 evening set -2326 Jul 14 j 21:18 11°5519'27 2°**る**32'37 max. Earth dist. -2332 Sep 17 j 08:06 -2326 Jul 27 j 04:19 13°559'59 direct 6.40194 AU -2331 Jan 19 j 20:45 21° ₹52'22 evening set -2326 Jul 28 j 01:35 14°511'35 conjunction 0°57'26 -2331 Feb 02 j 01:11 25°중01'38 -1°-5'-47 -2326 Jul 28 j 01:32 14°5511'33 conjunction minimum elong 0°57'29 17°502'08 -2331 Feb 02 j 01:08 25°**⋜**01'37 -2326 Aug 10 j 02:44 minimum elong 1°05'51 morning rise -2326 Oct 17 j 10:14 max. Earth dist. -2331 Feb 03 j 05:43 25°**⋜**18'44 5.99654 AU 0 $^{\circ}\Omega$ -2326 Dec 08 j 09:39 morning rise -2331 Feb 15 j 09:05 28°중12'43 retrograde 3°**Ω**58′50 -2331 Feb 22 j 22:37 0°≈ -2325 Jan 30 j 13:02 30° Rூ 1°40'40 -2331 May 09 j 16:37 15°≈ opposition -2325 Feb 06 j 14:54 29°505'29 retrograde -2331 Jun 27 j 15:14 18°≈38'03 min. Earth dist. -2325 Feb 07 j 12:18 28°558'34 4.41384 AU -2325 Apr 10 j 03:18 24°502'36 -2331 Aug 15 j 22:17 15°R≈ direct -2331 Aug 26 j 15:42 13°≈34'13 -2325 Jun 16 j 00:56 opposition -1°-52'-59 $0^{\circ}\Omega$ min. Earth dist. -2331 Aug 25 j 12:45 13°**≈**43'19 3.99999 AU evening set -2325 Aug 15 j 07:48 11°**Ω**48'34 direct -2331 Oct 23 j 14:43 8°≈39'28 max. Earth dist. -2325 Aug 26 j 12:51 14°**Ω**15'38 6.40791 AU -2331 Dec 26 j 22:09 15°≈ evening set -2330 Feb 25 j 20:07 28°≈03'23 conjunction -2325 Aug 28 j 03:46 14°Ω36'58 1°16'39 -2330 Mar 06 j 01:42 minimum elong -2325 Aug 28 j 03:45 14°**Ω**36'57 -2325 Aug 29 j 21:46 15°**Ω** conjunction -2330 Mar 11 j 08:14 1° **★** 14'55 -1°-17'-12 morning rise -2325 Sep 09 j 20:47 $17^{\circ}\Omega$ 23'59 minimum elong -2330 Mar 11 j 08:15 1°**)** 14'56 1°17'14 -2325 Nov 14 j 07:17 0°m max. Earth dist. -2330 Mar 13 j 07:24 1°**)** 42′50 6.01982 AU retrograde -2324 Jan 08 i 09:08 4° m 24'20 morning rise -2330 Mar 24 j 23:09 4°**)**(27'50 -2324 Mar 05 i 10:48 30°RΩ retrograde -2330 Aug 03 i 00:06 24°\(\frac{1}{2}\)32'04 opposition -2324 Mar 09 i 00:48 29° Ω 32'34 1°54'11 min. Earth dist. -2330 Sep 30 j 07:42 19° ¥ 37'19 4.05824 AU min. Earth dist. -2324 Mar 10 j 07:27 29°**Ω**22'47 4.38849 AU -2330 Oct 01 i 14:15 19° ¥26'54 -1°-46'-50 direct -2324 May 10 j 16:57 $24^{\circ}\Omega$ 31'27 opposition -2330 Nov 28 j 19:24 14° **)** 29'08 -2324 Jul 13 j 07:34 direct 0° m -2329 Mar 18 j 22:29 $0^{\circ}\Upsilon$ -2324 Sep 14 j 05:46 12° m 23'31 evening set -2329 Apr 03 j 21:42 3°Y37'28 max. Earth dist. -2324 Sep 24 j 23:46 14° mp 46'54 6.35230 AU evening set -2329 Apr 17 j 15:23 6°Y47'33 0°-59'-34 -2324 Sep 26 j 20:31 15° mp 11'52 1°14'36 conjunction conjunction -2324 Sep 26 j 20:33 15° m 11'53 minimum elong -2329 Apr 17 j 15:26 6°**Y**47'35 0°59'34 minimum elong 1°14'37 7°**Y**14'35 -2329 Apr 19 j 14:12 -2324 Oct 09 j 09:11 17° m 59'23 max. Earth dist. 6.10754 AU morning rise -2324 Dec 08 j 13:20 0°**♀** -2329 May 01 j 10:23 9°**Y**58'06 morning rise -2323 Feb 08 j 16:10 -2329 Sep $06 \text{ j } 08:04 \quad 29^{\circ} \Upsilon 07'57$ 5°**£**28'54 retrograde retrograde -2329 Nov 04 j 19:18 24°**Υ**'04'11 -1°-2'-31 -2323 Apr 10 j 14:42 opposition opposition 0°**2**37'03 1°35'44 -2329 Nov 03 j 18:00 24°Υ12'48 4.16569 AU -2323 Apr 11 j 23:12 0°**2**26'44 4.30588 AU min. Earth dist. min. Earth dist. direct -2328 Jan 02 j 22:06 19°**Υ**03'23 -2323 Apr 15 j 11:33 30°R M -2328 Apr 02 j 21:21 0°8 direct -2323 Jun 11 j 19:22 25° Mp 38'33 evening set -2328 May 08 j 21:32 7°**8**43'57 -2323 Aug 06 j 05:54 0∘**⊽** evening set -2323 Oct 15 j 11:07 13°**♀**48'35 -2328 May 22 j 15:38 10°849'07 0°-21'-44 max. Earth dist. -2323 Oct 26 j 08:14 16°**£**17'27 6.24933 AU conjunction -2328 May 22 j 15:40 10°849'08 0°21'43 minimum elong max. Earth dist. -2328 May 23 j 20:18 11°**8**05'14 6.22650 AU -2323 Oct 28 j 00:48 16°**♀**40'39 conjunction -2328 Jun 05 j 09:04 13°**8**53'41 -2323 Oct 28 j 00:51 16°**2**40'41 morning rise minimum elong -2328 Jun 10 i 08:33 15°℃ -2323 Nov 09 i 14:11 19°**£**32'45 morning rise -2328 Sep 01 i 19:49 $0^{\circ}\Pi$ -2323 Dec 29 i 01:20 0°M -2328 Oct 07 j 18:42 retrograde 2°**Ⅱ**01'41 retrograde -2322 Mar 14 j 20:05 7°**IL**52'37 -2328 Nov 12 j 11:16 30°R8 opposition -2322 May 14 j 20:44 2°ML58'53 0°47'12 -2328 Dec 06 j 07:34 27°801'14 0°00'-3 min. Earth dist. -2322 May 15 i 19:57 2°ML51'27 4.18846 AU opposition min. Earth dist. -2328 Dec 05 j 20:55 27°804'49 4.28412 AU -2322 Jun 08 j 21:59 30°R ₽ asc. node -2328 Dec 06 j 16:30 26°858'14 -2322 Jul 14 j 22:47 28° **2**03'10 direct -2322 Aug 19 j 13:43 direct -2327 Feb 04 j 18:46 21°**8**58'22 oom. -2327 Apr 23 j 06:48 $0^{\circ}\Pi$ -2322 Nov 09 j 15:37 15°M -2322 Nov 16 j 19:49 16°M39'42 evening set -2327 Jun 12 j 05:12 10°**Ⅲ**10'51 evening set conjunction -2327 Jun 25 j 18:14 13°**Д**09'18 0°21'40 conjunction -2322 Nov 29 j 12:42 19°M 38'10 0°10'10 -2327 Jun 25 j 18:12 13°**Ⅲ**09'17 0°21'43 -2322 Nov 29 j 12:42 19°M38'10 0°10'08 minimum elong minimum elong -2327 Jun 25 j 22:26 13°**Д**11'36 6.33554 AU -2322 Nov 29 j 06:14 19°M34'23 max. Earth dist. behind sun begin -2327 Jul 09 j 04:40 16°**Ⅲ**06'21 -2322 Nov 29 j 19:10 19°M41'57 morning rise behind sun end -2327 Sep 21 j 00:33 0ಂತಾ max. Earth dist. -2322 Nov 28 j 15:42 19°ML25'50 6.12839 AU retrograde -2327 Nov 07 j 18:42 3°926'27 morning rise -2322 Dec 12 j 06:36 22°M 37'27 -2327 Dec 26 j 01:26 30°RⅡ -2321 Jan 14 j 02:05 0°**∡** opposition -2326 Jan 06 j 15:34 28°**Ⅲ**29'55 0°59'28 desc. node -2321 Feb 24 j 23:48 7°**х** 41'46 min. Earth dist. -2326 Jan 06 j 20:46 28°**Ⅲ**28'12 4.37558 AU retrograde -2321 Apr 20 j 00:20 11°**尽** 57'54 direct -2326 Mar 09 j 07:07 23°**Д**26'22 -2321 Jun 19 j 19:39 7°**∡**00'57 0°-19'-59 opposition

min. Earth dist.

-2321 Jun 20 j 01:55

6°**₹**¹58'55 4.07303 AU

-2326 May 18 j 13:03

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2321 in astronomical counting style is the year 2322 BCE in historical counting style. direct -2321 Aug 18 j 12:35 2°**尽** 07'22 -2315 Mar 29 j 11:15 0°**Ⅱ** -2321 Dec 20 j 23:57 21° ₹ 12'08 -2315 Jun 16 j 23:02 14°**II**47'27 evening set evening set -2315 Jun 30 j 10:47 17°**Д**44'48 0°27'29 -2320 Jan 02 j 22:23 24° ₹ 17'22 0°-35'-29 conjunction conjunction -2320 Jan 02 j 22:20 24° ₹ 17'20 -2315 Jun 30 j 10:45 17°**Ⅱ**44'47 minimum elong 0°35'33 minimum elong 0°27'33 -2320 Jan 03 j 03:01 24°**✗**¹20'08 -2315 Jun 30 j 09:58 17°**Ⅱ**44'21 max. Earth dist. 6.02914 AU max. Earth dist. 6.35009 AU -2315 Jul 13 ј 20:03 20°**Д**40'45 morning rise -2320 Jan 15 j 23:38 27°**尽** 24'11 morning rise -2320 Jan 27 j 00:23 0°₹ -2315 Aug 28 j 10:04 0.ಎ -2315 Nov 12 j 04:03 retrograde -2320 May 26 j 10:58 17°る35'08 retrograde 7°955'21 opposition -2320 Jul 25 j 20:36 12°♂34'11 -1°-22'-52 opposition -2314 Jan 11 j 01:16 2°**9**59'20 1°06'42 min. Earth dist. -2320 Jul 25 j 06:03 12°♂39'01 4.00043 AU min. Earth dist. -2314 Jan 11 j 09:53 2°956'30 4.38635 AU -2320 Sep 22 j 07:47 -2314 Feb 04 j 12:13 direct 7°**る**40'53 30°Ŗ**Ⅱ** -2319 Jan 25 j 00:34 27°**⋜**05'00 evening set direct -2314 Mar 13 j 21:44 27° **I** 55'47 -2319 Feb 06 j 05:04 -2314 Apr 20 j 16:23 0ಂತ evening set -2314 Jul 19 j 09:26 15°9546'32 conjunction -2319 Feb 07 j 06:21 0°**≈**15′09 -1°-9'-3 minimum elong -2319 Feb 07 j 06:18 0°**≈**15′08 1°09'07 conjunction -2314 Aug 01 j 12:34 18°537'55 1°01'18 max. Earth dist. -2319 Feb 08 j 15:51 0°≈35'15 5.98921 AU minimum elong -2314 Aug 01 j 12:31 18°537'54 1°01'22 morning rise -2319 Feb 20 j 15:17 3°≈27'02 max. Earth dist. -2314 Jul 31 j 12:42 18°524'54 6.40791 AU -2319 Apr 13 j 21:09 15°≈ morning rise -2314 Aug 14 j 12:19 21°527'41 retrograde -2319 Jul 02 j 23:09 23°≈54'19 -2314 Sep 25 j 04:39 $0^{\circ}\Omega$ opposition -2319 Aug 31 i 20:34 18°≈50'05 -1°-54'-47 retrograde -2314 Dec 12 i 16:26 8°**Ω**22'59 min. Earth dist. -2319 Aug 30 j 16:43 18°≈59'31 3.99924 AU opposition -2313 Feb 11 i 00:18 3°**Ω**29'57 1°44'23 -2319 Oct 03 j 13:00 15°R≈ min. Earth dist. -2313 Feb 11 i 22:46 3°**Ω**22'42 4.41498 AU direct -2319 Oct 28 j 19:36 13°≈54'57 -2313 Mar 13 j 03:08 30°R 5 -2319 Nov 23 i 01:55 15°≈ -2313 Apr 14 j 13:19 28°527'16 direct -2318 Feb 16 j 21:07 -2313 May 17 j 06:27 0°¥ $0^{\circ}\Omega$ -2318 Mar 03 j 03:54 3°**)** 19'17 -2313 Aug 14 j 01:57 15°**Ω** evening set evening set -2313 Aug 19 j 17:03 16° **Ω**13'13 -2318 Mar 16 j 17:03 6°**)**31'02 -1°-16'-17 max. Earth dist. -2313 Aug 30 j 19:29 18° Ω39'05 conjunction 6.40401 AU -2318 Mar 16 j 17:04 6°¥31'03 1°16'19 minimum elong -2313 Sep 01 j 11:59 19° Ω 01'21 1°17'42 max. Earth dist. -2318 Mar 18 j 18:28 7°**₭**00'12 6.02551 AU conjunction -2318 Mar 30 j 08:58 -2313 Sep 01 j 11:58 19° **Ω**01'20 1°17'44 9°**)** 44′04 morning rise minimum elong -2318 Aug 08 j 01:10 29° ¥42'54 -2313 Sep 14 j 04:07 $21^{\circ}\Omega$ 48'10 retrograde morning rise -2318 Oct 05 j 07:05 24° ¥ 48'30 4.06963 AU -2313 Oct 23 j 16:55 min. Earth dist. 0° m -2318 Oct 06 j 14:53 24° ₭ 37'39 -1°-42'-21 -2312 Jan 12 j 20:56 opposition retrograde 8° m 51'09 -2318 Dec 03 j 21:11 19° ★ 39'23 -2312 Mar 13 j 13:09 direct opposition 3° m 59'32 1°53'31 -2317 Feb 28 j 04:59 $0^{\circ}\Upsilon$ min. Earth dist. -2312 Mar 14 j 21:29 3° m/49'14 4.37982 AU evening set -2317 Apr 09 j 03:52 8°Y44'23 -2312 Apr 18 j 22:58 30°RΩ direct -2312 May 15 j 05:23 28°**Ω**58'47 conjunction -2317 Apr 22 j 21:53 11°**Υ**′53'55 0°-55'00 -2312 Jun 10 j 12:46 0° m -2317 Apr 22 j 21:56 11°**Υ**'53'57 evening set -2312 Sep 18 j 14:47 16° m 52'56 minimum elong max. Earth dist. -2317 Apr 24 j 18:50 12°**Υ**19'47 max. Earth dist. -2312 Sep 29 j 06:49 19° m 15'44 6.12335 AU -2317 May 06 j 17:04 15°**Y**03'47 morning rise -2317 Jul 21 j 05:51 -2312 Oct 01 j 05:07 19° mp 41'39 1°12'29 conjunction -2317 Sep 11 i 02:40 -2312 Oct 01 i 05:09 19° m 41'40 retrograde 4°**8**04'22 minimum elong 1°12'30 -2317 Nov 02 i 06:30 30°RΥ morning rise -2312 Oct 13 j 17:44 22° m 29'40 opposition -2317 Nov 09 i 13:38 29°**Υ**00'51 0°-54'-4 -2312 Nov 17 j 22:24 0∘**⊽** -2317 Nov 08 j 14:27 29° Υ 08'44 4.18369 AU min. Earth dist. retrograde -2311 Feb 13 i 09:11 10° **2**05'34 opposition direct -2316 Jan 07 j 21:44 23° Υ 59'35 -2311 Apr 15 j 08:27 5°**♀**13'33 1°30'31 -2316 Mar 12 j 12:20 min. Earth dist. -2311 Apr 16 j 15:52 5°**ഫ**03'33 4.28956 AU 0°₩ -2316 May 13 j 21:57 12°**8**35'17 direct -2311 Jun 16 j 09:30 0°**£**15'27 evening set -2316 May 24 j 17:13 15°8 -2311 Oct 19 j 23:05 18° **2**29'24 evening set max. Earth dist. -2311 Oct 30 j 23:42 21°**⊆**00'50 6.23113 AU conjunction -2316 May 27 j 15:45 15°\(\begin{aligned} \be minimum elong -2316 May 27 j 15:47 15°**8**39'30 0°15'28 conjunction -2311 Nov 01 j 13:09 21°**£**22'21 0°45'49 behind sun begin -2316 May 27 j 14:11 15°**8**38'37 minimum elong -2311 Nov 01 j 13:11 21°**£**22'23 0°45'48 -2316 May 27 j 17:22 15°**8**40'23 -2311 Nov 14 j 02:50 24°**£**15'24 behind sun end morning rise -2316 May 28 j 18:43 15°**8**54'34 6.24509 AU -2311 Dec 09 j 22:36 max. Earth dist. 0° M -2316 Jun 10 j 08:19 18°**8**42'54 morning rise retrograde -2310 Mar 19 j 21:18 12°M 44'11 -2316 Aug 04 j 17:16 Π $^{\circ}$ 0 opposition -2310 May 19 j 21:04 7°M50'10 0°38'20 retrograde -2316 Oct 12 j 05:17 6°**Ⅱ**42'06 min. Earth dist. -2310 May 20 j 18:50 7°M43'12 4.16967 AU asc. node -2316 Oct 15 j 09:32 6°**Ⅱ**41'06 direct -2310 Jul 19 j 18:56 2°M54'55 opposition -2316 Dec 10 j 20:06 1°**I**I42'11 0°09'05 -2310 Oct 23 j 08:38 15°M min. Earth dist. -2316 Dec 10 j 10:50 1°**I**45'17 4.30145 AU evening set -2310 Nov 21 j 13:57 21°M 36'12 -2316 Dec 23 j 20:10 30°R8

conjunction

-2310 Dec 04 j 07:23 24°M35'42 0°03'37

direct

-2315 Feb 09 j 10:51 26°839'07

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2310 in astronomical counting style is the year 2311 BCE in historical counting style. -2310 Dec 04 i 07:23 24°M 35'42 0°03'34 behind sun end -2304 Jun 01 i 18:04 20°**8**24'16 minimum elong -2310 Dec 03 j 23:24 24°M31'02 -2304 Jun 02 j 08:40 20° \(\begin{aligned}
 32'26 & 6.26270 AU \end{aligned}
 \] behind sun begin max Earth dist -2310 Dec 04 j 15:21 24° 1 1 40'22 -2304 Jun 15 j 03:05 23°**8**22'47 behind sun end morning rise -2304 Jul 16 j 02:14 -2310 Dec 03 j 12:34 24°M24'38 6.11082 AU max. Earth dist. $0^{\circ}\Pi$ -2310 Dec 17 j 02:24 27°M36'13 -2304 Aug 25 j 12:39 7°**Ⅱ**10′28 morning rise asc. node -2310 Dec 27 j 09:56 -2304 Oct 16 j 14:01 11°**II**14'20 0°**∡**7 retrograde -2304 Dec 15 j 05:33 0°17'50 desc. node -2309 Jan 03 j 21:14 1°**х** 42′12 opposition 6°**Ⅱ**14'55 retrograde -2309 Apr 25 j 06:50 17°**尽** 05'31 min. Earth dist. -2304 Dec 14 j 23:37 6°**Ⅱ**16'54 4.31604 AU opposition -2309 Jun 25 j 01:19 12°**尽** 08'02 0°-29'-53 direct -2303 Feb 14 j 01:38 1°**Ⅱ**11'40 min. Earth dist. -2309 Jun 25 j 03:34 12°**尽** 07'18 4.05855 AU evening set -2303 Jun 21 j 13:13 19°**Ⅲ**16'53 direct -2309 Aug 23 j 12:34 7°**∡**14'40 -2303 Jul 05 j 00:03 22°**Ⅲ**13'22 0°32'59 evening set -2309 Dec 26 j 00:54 26° ₹ 23'18 conjunction -2303 Jul 05 j 00:00 22°**Ⅱ**13'21 minimum elong 0°33'02 conjunction -2308 Jan 08 j 00:26 29°**х** 29'25 0°-41'-25 max. Earth dist. -2303 Jul 04 j 20:34 22°**Ⅲ**11'28 6.36061 AU minimum elong -2308 Jan 08 j 00:23 29°**∡**¹29'24 0°41'29 morning rise -2303 Jul 18 j 07:54 25°**Ⅱ**08'21 max. Earth dist. -2308 Jan 08 j 10:59 29°**∡**³35'45 6.01930 AU -2303 Aug 10 j 04:04 -2308 Jan 10 j 03:29 0°궁 retrograde -2303 Nov 16 j 09:13 12°519'05 morning rise -2308 Jan 21 j 02:38 2°る37'07 opposition -2302 Jan 15 j 08:40 7°**5**23'34 1°13'23 7°ഇ20'11 retrograde -2308 May 31 j 21:06 22°る52'52 min. Earth dist. -2302 Jan 15 j 18:58 4.39234 AU min. Earth dist. -2308 Jul 30 j 11:48 17°る56'52 3.99662 AU direct -2302 Mar 18 j 07:28 2°9520'04 opposition -2308 Jul 31 j 04:18 17°る51'23 -1°-29'-49 evening set -2302 Jul 23 j 19:49 20°510'02 direct -2308 Sep 27 j 13:09 12°る58'00 -2307 Jan 20 j 04:51 0°≈ conjunction -2302 Aug 05 i 21:36 23°500'52 1°04'46 -2307 Jan 30 j 06:30 2°≈22'49 minimum elong -2302 Aug 05 j 21:33 23°500'50 1°04'48 evening set max. Earth dist. -2302 Aug 04 j 17:29 22°545'31 6.40880 AU -2307 Feb 12 j 13:14 5°≈33'18 -1°-11'-52 -2302 Aug 18 j 20:20 25°\$50'09 conjunction morning rise -2307 Feb 12 j 13:12 -2302 Sep 07 j 09:27 5°≈33'17 1°11'55 0 $^{\circ}\Omega$ minimum elong -2307 Feb 14 j 02:10 5.99157 AU -2302 Dec 17 j 01:26 $12^{\circ}\Omega 45'47$ max. Earth dist. 5°≈55'25 retrograde 8°≈45'32 -2301 Feb 15 j 09:26 morning rise -2307 Feb 25 j 23:20 opposition 7°**Ω**53'03 1°47'30 -2301 Feb 16 j 10:40 7°**Ω**44'55 4.41096 AU -2307 Mar 24 j 23:36 15°≈ min. Earth dist. -2307 Jul 08 j 04:04 29°≈10′26 -2301 Apr 19 j 00:40 retrograde direct 2°**Ω**50'33 -2301 Jul 28 j 11:52 15° Ω min. Earth dist. -2307 Sep 04 j 18:40 24°≈16'05 4.00785 AU -2301 Aug 24 j 01:37 20°**Ω**37'51 -2307 Sep 06 j 00:44 24°≈05'54 -1°-55'-40 evening set opposition -2307 Nov 02 j 23:07 19°≈10'23 max. Earth dist. -2301 Sep 04 j 02:04 23° Ω 02'59 direct 6.39528 AU -2306 Jan 29 j 10:23 0°**₩** -2306 Mar 08 j 10:21 -2301 Sep 05 j 19:52 23° Ω 26'00 1°18'16 evening set 8°**)**(31'50 conjunction -2301 Sep 05 j 19:51 23° Ω 26'00 1°18'18 minimum elong conjunction -2306 Mar 22 j 00:16 11° **★**43'19 -1°-14'-50 morning rise -2301 Sep 18 j 11:15 $26^{\circ}\Omega$ 12'53 minimum elong -2306 Mar 22 j 00:18 11°**)** 43'20 1°14'52 -2301 Oct 06 j 00:37 0° M max. Earth dist. -2306 Mar 24 j 01:36 12°**米** 12'20 6.03929 AU retrograde -2300 Jan 17 j 08:27 13° M 20'03 morning rise -2306 Apr 04 j 16:52 14° **€** 55'58 -2300 Mar 18 j 02:32 8° m 28'27 1°52'11 opposition -2306 Jun 17 j 11:03 $0^{\circ}\Upsilon$ min. Earth dist. -2300 Mar 19 j 10:18 8° m 18'20 4.36715 AU -2306 Aug 12 j 22:49 4°**Y**46'37 -2300 May 19 j 16:26 3°m/28'03 retrograde direct -2306 Oct 09 j 05:48 30°R € -2300 Sep 23 j 00:44 21° m 25'17 evening set min. Earth dist. -2306 Oct 10 j 05:39 29° **€** 51'51 4.08682 AU max. Earth dist. -2300 Oct 03 j 17:55 23° mp 49'16 6.32391 AU opposition -2306 Oct 11 i 12:15 29° \(\frac{1}{41}\)'24 -1°-37'-13 -2306 Dec 08 j 22:24 24° \(\frac{1}{2}\)42'37 -2300 Oct 05 j 14:47 24° m 14'29 1°09'53 direct conjunction -2305 Feb 06 i 01:07 $0^{\circ}\Upsilon$ minimum elong -2300 Oct 05 i 14:49 24° m 14'30 1°09'52 evening set -2305 Apr 14 j 06:08 13°γ′42'38 morning rise -2300 Oct 18 j 03:16 27° m 03'06 -2300 Oct 31 i 11:23 0∘∙ retrograde -2299 Feb 18 j 05:00 14° **2**46'05 conjunction -2305 Apr 28 j 00:37 16°**Y**51'30 opposition -2299 Apr 20 j 04:01 9°**£**53'55 1°24'38 minimum elong 0°50'12 max. Earth dist. -2305 Apr 29 j 20:50 17°**Y**16'49 min. Earth dist. -2299 Apr 21 j 11:09 9°**2**44'01 4.27215 AU 6.14259 AU -2305 May 11 j 19:34 20°**Υ**00′25 morning rise direct -2299 Jun 21 j 02:41 4°**£**56'15 -2305 Jun 27 j 16:56 0°8 evening set -2299 Oct 24 j 12:48 23° **2**14'07 -2305 Sep 15 j 16:13 retrograde 8°**8**51'06 max. Earth dist. -2299 Nov 04 j 15:14 25°**2**47'14 6.21344 AU min. Earth dist. -2305 Nov 13 j 06:15 3°**8**55'23 4.20291 AU -2305 Nov 14 j 03:57 3°**8**48'02 0°-45'-34 -2299 Nov 06 j 03:07 26°**♀**07'55 opposition conjunction 0°40'29 -2305 Dec 16 j 04:55 30°R℃ -2299 Nov 06 j 03:10 26°**♀**07'57 minimum elong 0°40'27 -2304 Jan 12 j 15:46 28° **Y**46'28 -2299 Nov 18 j 17:29 29°**£**01'59 direct morning rise 0° 8 -2304 Feb 09 j 11:49 -2299 Nov 22 j 22:59 0° \mathbb{M} -2304 May 08 j 08:25 15° -2298 Feb 10 j 20:07 15°M evening set -2304 May 18 j 18:04 17°**8**17'15 retrograde -2298 Mar 24 j 22:28 17°MJ39'13 -2298 May 06 j 16:08 15°RM conjunction -2304 Jun 01 j 11:09 20°**8**20'26 0°-9'-23 opposition -2298 May 24 j 22:48 12° M.44'44 0°29'04 -2304 Jun 01 j 11:09 20°**8**20'26 0°09'21 -2298 May 25 j 16:55 12°M38'55 4.15301 AU minimum elong min. Earth dist.

-2298 Jul 24 j 15:04

direct

7°M49'49

-2304 Jun 01 j 04:14 20°**8**16'36

behind sun begin

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 10 Attention, astronomical year style is used: The year -2298 in astronomical counting style is the year 2299 BCE in historical counting style.

Attention, astronom	ical year style is used: The	he year -2298	in astronomical cou	unting style is the year	2299 BCE in historical	counting style	
	-2298 Oct 03 j 10:36	15° M ₊		conjunction	-2292 Jun 06 j 06:21		
desc. node	-2298 Nov 12 j 14:13			minimum elong	-2292 Jun 06 j 06:20		0°03'14
evening set	-2298 Nov 26 j 09:05	26°M34'47		behind sun begin	-2292 Jun 05 j 22:05		
				behind sun end	-2292 Jun 06 j 14:36		
conjunction	-2298 Dec 09 j 03:19	29°M35'13	0°-3'-8	max. Earth dist.	-2292 Jun 07 j 01:13		6.27724 AU
minimum elong	-2298 Dec 09 j 03:18	29°M35'12	0°03'13	morning rise	-2292 Jun 19 j 21:15		
behind sun begin	-2298 Dec 08 j 19:18	29°M30'30			-2292 Jun 28 j 22:08	0°II	
behind sun end	-2298 Dec 09 j 11:18	29°M39'55	C 00 C70 ATT	asc. node	-2292 Jul 05 j 10:36	1° Ⅱ 24'24	
max. Earth dist.	-2298 Dec 08 j 13:51	29°M27'16	6.09679 AU	retrograde	-2292 Oct 20 j 22:49		0027120
	-2298 Dec 10 j 21:15 -2298 Dec 21 j 23:06	0° ⊼ 1 2°∗ 7 12€142		opposition	-2292 Dec 19 j 14:55		0°26'29 4.32784 AU
morning rise retrograde	-2298 Dec 21 j 23:06 -2297 Apr 30 j 14:50	2° х 36'42 22° х 13'13		min. Earth dist. direct	-2292 Dec 19 j 11:14 -2291 Feb 18 j 15:01	5° Ⅱ 44'09	4.32784 AU
opposition	-2297 Apr 30 j 14.30 -2297 Jun 30 j 07:19	17° × 15'09	0°-39'-35	evening set	-2291 Feb 18 j 13.01 -2291 Jun 26 j 03:55		
min. Earth dist.	-2297 Jun 30 j 07:24	17° 🖈 15'08	4.04831 AU	evening set	-2291 Juli 20 j 03.33	23 114/1/	
direct	-2297 Aug 28 j 15:15		4.04031 AC	conjunction	-2291 Jul 09 j 13:28	26°∏42'58	0°38'18
uncet	-2297 Dec 24 j 13:21	0°る		minimum elong	-2291 Jul 09 j 13:25		0°38'22
evening set	-2297 Dec 31 j 01:54	1° ට 32'44		max. Earth dist.	-2291 Jul 09 j 04:49		6.36861 AU
8	, , , , , , , , , , , , , , , , , , ,			morning rise	-2291 Jul 22 j 20:16		
conjunction	-2296 Jan 13 j 02:16	4° る 39'29	0°-47'-1	3	-2291 Jul 24 j 14:20	0ಂತಾ	
minimum elong	-2296 Jan 13 j 02:13	4°る39'27	0°47'06	retrograde	-2291 Nov 20 j 17:23	16° © 45'01	
max. Earth dist.	-2296 Jan 13 j 16:28	4°₹47'59	6.01356 AU	opposition	-2290 Jan 19 j 17:19		1°19'44
morning rise	-2296 Jan 26 j 05:36	7° る 47'54		min. Earth dist.	-2290 Jan 20 j 06:27		4.39633 AU
retrograde	-2296 Jun 06 j 03:09	28° ට 06'20		direct	-2290 Mar 22 j 19:30	6°5946'31	
opposition	-2296 Aug 05 j 09:58	23° る 04'21	-1°-35'-59	evening set	-2290 Jul 28 j 06:46	24°536'15	
min. Earth dist.	-2296 Aug 04 j 14:16	23° ප 10'56	3.99632 AU	max. Earth dist.	-2290 Aug 09 j 02:13	27°510'36	6.40839 AU
direct	-2296 Oct 02 j 15:42	18° ප 10'49					
	-2295 Jan 02 j 09:12	0° ≈		conjunction	-2290 Aug 10 j 07:34	27°526'38	1°07'54
evening set	-2295 Feb 04 j 11:18	7° ≈ 35'27		minimum elong	-2290 Aug 10 j 07:31		1°07'56
					-2290 Aug 22 j 00:32	0 $^{\circ}\Omega$	
conjunction	3	10° ≈ 46′08	-1°-14'-5	morning rise	-2290 Aug 23 j 04:57	0° Ω 15′26	
minimum elong	-2295 Feb 17 j 18:58	10° ≈ 46′07	1°14'08		-2290 Nov 13 j 10:10		
max. Earth dist.	-2295 Feb 19 j 09:53	11° ≈ 09′22	5.99641 AU	retrograde	-2290 Dec 21 j 09:39		
morning rise	-2295 Mar 03 j 06:01	13° ≈ 58'30			-2289 Jan 28 j 17:30		
	-2295 Mar 07 j 14:13			opposition	-2289 Feb 19 j 19:49		
	-2295 May 20 j 13:32	0° \		min. Earth dist.	-2289 Feb 20 j 21:31		4.40656 AU
retrograde	-2295 Jul 13 j 06:37	4° ∺ 20′09		direct	-2289 Apr 23 j 10:54	7° Ω 17'18	
i D4h Ji.4	-2295 Sep 05 j 14:32		4.01724.411		-2289 Jul 09 j 15:10 -2289 Aug 28 j 11:27		
min. Earth dist. opposition	-2295 Sep 09 j 20:00 -2295 Sep 11 j 02:19			evening set max. Earth dist.	-2289 Aug 28 j 11:27 -2289 Sep 08 j 09:25		6 20721 ATT
direct	-2295 Nov 08 j 02:12		-1 -33-39	max. Earth dist.	-2209 Sep 08 j 09.23	2/ 0630 10	0.38721 AU
direct	-2294 Jan 07 j 17:35	0° \		conjunction	-2289 Sep 10 j 04:43	27°Ω54'05	1°18'26
evening set	-2294 Mar 13 j 14:50			minimum elong	-2289 Sep 10 j 04:43		1°18'28
evening set	22)4 Mai 15 j 14.50	13 7(3007		minimum ciong	-2289 Sep 19 j 16:53	0° m	1 1020
conjunction	-2294 Mar 27 j 05:42	16° ¥ 49'23	-1°-12'-52	morning rise	-2289 Sep 22 j 19:33	0° Mp 41'02	
minimum elong	-2294 Mar 27 j 05:45	16°) (49′25	1°12'53	retrograde	-2288 Jan 21 j 23:09	-	
max. Earth dist.	-2294 Mar 29 j 08:22	17°) 19′04	6.05260 AU	opposition	-2288 Mar 22 j 17:13	13° m 00'41	1°50'12
morning rise	-2294 Apr 09 j 22:48	20°) €01'40		min. Earth dist.	-2288 Mar 24 j 01:59	12° m 50'15	4.35608 AU
	-2294 May 25 j 11:31	0° Υ		direct	-2288 May 24 j 06:51	8° mp 00'39	
retrograde	-2294 Aug 17 j 19:03	9° Ƴ 44'29		evening set	-2288 Sep 27 j 11:10	26° Mp $00'14$	
min. Earth dist.	-2294 Oct 15 j 01:50	4° Υ 49'38	4.10254 AU	max. Earth dist.	-2288 Oct 08 j 05:21	28° Mp $25'14$	6.31087 AU
opposition	-2294 Oct 16 j 07:34	4° Υ 39'30	-1°-31'-32				
	-2294 Nov 29 j 23:08	30° ₹ ₩		conjunction	-2288 Oct 10 j 01:06		1°06'53
direct	-2294 Dec 13 j 20:04	29°) 40′21		minimum elong	-2288 Oct 10 j 01:09	28° m 49'55	1°06'53
	-2294 Dec 27 j 19:45	0°Υ			-2288 Oct 15 j 05:27	0∘ ⊽	
evening set	-2293 Apr 19 j 07:07	18° Ƴ 36′18		morning rise	-2288 Oct 22 j 13:34	1° ≏ 39'03	
	2202.15	0.10004	00.451.5	retrograde	-2287 Feb 22 j 23:13	19° £ 28'18	1010112
conjunction	-2293 May 03 j 01:32		0°-45'-7	opposition	-2287 Apr 24 j 23:55	14° ≙ 35'52	1°18'13
minimum elong	-2293 May 03 j 01:35	21° Υ 44'30	0°45'07	min. Earth dist.	-2287 Apr 26 j 04:31		4.25809 AU
max. Earth dist.	-2293 May 04 j 17:47	22° Y 07'25	6.15932 AU	direct	-2287 Jun 25 j 18:07	9° £ 38'38	
morning rise	-2293 May 16 j 20:36	24° Y 52'40		evening set	-2287 Oct 29 j 02:11	27° ♀ 59'10	
ratra ava d-	-2293 Jun 09 j 00:35	0° 8		may Earth Ji	-2287 Nov 06 j 19:58	0°M,	6 10065 ATT
retrograde opposition	-2293 Sep 20 j 04:41 -2293 Nov 18 j 17:12	13° 8 34'45 8° 8 32'08	0°-36'-55	max. Earth dist.	-2287 Nov 09 j 08:27	0°M34'59	6.19965 AU
min. Earth dist.	-2293 Nov 18 j 17:12 -2293 Nov 17 j 21:41	8° 8 32'08	4.21907 AU	conjunction	-2287 Nov 10 j 16:46	0°ML53'40	0°34'56
direct	-2292 Jan 17 j 09:33	3° 8 30'14	1.2170/ AU	minimum elong	-2287 Nov 10 j 16:49	0°M53'42	0°34'54
311000	-2292 Jan 17 j 09:33 -2292 Apr 20 j 23:20			morning rise	-2287 Nov 10 j 10:49 -2287 Nov 23 j 07:37	3°M48'32	3 3 1 3 7
evening set	-2292 May 23 j 13:42				-2286 Jan 15 j 02:07		
-0	, _5 , 15.12	J = 1 = 2					

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 11

•	ical year style is used: Th		•	, ·		, .	
retrograde	-2286 Mar 30 j 00:50	-		retrograde	-2281 Sep 24 j 17:47		
opposition	-2286 May 29 j 23:39		0°19'43	C	-2281 Nov 09 j 15:35		
min. Earth dist.	-2286 May 30 j 16:12	17°M32'36	4.14036 AU	opposition	-2281 Nov 23 j 05:13	13° 8 12'26	0°-28'-12
	-2286 Jun 20 j 14:17			min. Earth dist.	-2281 Nov 22 j 12:05		4.23218 AU
direct	-2286 Jul 29 j 12:44	12°M43'19		direct	-2280 Jan 22 j 02:00	8° 8 10'18	
	-2286 Sep 05 j 19:30	15°M			-2280 Apr 01 j 03:01		
desc. node	-2286 Sep 22 j 11:13	17° M ₊14'42		asc. node	-2280 May 15 j 20:57		
	-2286 Nov 24 j 15:56	0° ∡ 7		evening set	-2280 May 28 j 08:09		
evening set	-2286 Dec 01 j 03:02	1° ∡ ³30'39		-			
				conjunction	-2280 Jun 11 j 00:04	29° 8 36'30	0°02'56
conjunction	-2286 Dec 13 j 21:54	4° ∡ ³31'48	0°-9'-37	minimum elong	-2280 Jun 11 j 00:04	29° 8 36'29	0°02'58
minimum elong	-2286 Dec 13 j 21:53	4° ∡ ³31'47	0°09'40	behind sun begin	-2280 Jun 10 j 15:47	29° 8 31'55	
behind sun begin	-2286 Dec 13 j 15:12	4° ∡ ¹27'51		behind sun end	-2280 Jun 11 j 08:20	29° 8 41'03	
behind sun end	-2286 Dec 14 j 04:34	4° ∡ ³35'43		max. Earth dist.	-2280 Jun 11 j 14:45		6.28881 AU
max. Earth dist.	-2286 Dec 13 j 11:42	4° ∡ ¹25'47	6.08643 AU		-2280 Jun 12 j 18:26	Π°	
morning rise	-2286 Dec 26 j 18:38	7° ∡ ³34′08		morning rise	-2280 Jun 24 j 14:14	2° Ⅲ 37′02	
retrograde	-2285 May 05 j 17:32	27° ∡ 16′12		retrograde	-2280 Oct 25 j 07:06		
opposition	-2285 Jul 05 j 10:23	22° ∡ 17'34	0°-48'-44	opposition	-2280 Dec 24 j 00:14		0°34'51
min. Earth dist.	-2285 Jul 05 j 06:59	22° ∡ 18'41	4.04140 AU	min. Earth dist.	-2280 Dec 23 j 22:28		4.33723 AU
direct	-2285 Sep 02 j 13:27	17° ∡ ¹24'24		direct	-2279 Feb 23 j 03:45		
	-2285 Dec 07 j 09:52	0°る		evening set	-2279 Jun 30 j 18:01		
evening set	-2284 Jan 05 j 00:39	6° ප 36'31			-2279 Jul 08 j 15:54	0ಂಣ _	
evening sec	22013411 03 3 00.33	0 3031			2277 Jul 00 j 13.5 i	۰٠	
conjunction	-2284 Jan 18 j 01:51	9° ප 43'46	0°-52'-6	conjunction	-2279 Jul 14 j 02:30	1° © 11'28	0°43'21
minimum elong	-2284 Jan 18 j 01:48	9° ට 43'44		minimum elong	-2279 Jul 14 j 02:28	1°9511'26	0°43'24
max. Earth dist.	-2284 Jan 18 j 19:20	9° ප 54'14		max. Earth dist.	-2279 Jul 13 j 15:53	1° © 05'39	6.37525 AU
morning rise	-2284 Jan 31 j 06:09	12° る 52'42	0.010.7110	morning rise	-2279 Jul 27 j 07:53	4°904'50	0.57020110
morning rise	-2284 Apr 26 j 06:46	0°≈		retrograde	-2279 Nov 25 j 01:01		
retrograde	-2284 Jun 11 j 06:57	3°≈12'49		opposition	-		1°25'34
retrograde	-2284 Jul 27 j 12:46	30°Rる		min. Earth dist.	-2278 Jan 24 j 16:48		4.39995 AU
opposition	-2284 Aug 10 j 12:14	28°る10'18	-1°-41'-12	direct	-2278 Mar 27 j 06:41		4.37773 AU
min. Earth dist.	-2284 Aug 09 j 15:13		3.99748 AU	evening set	-2278 Aug 01 j 17:32		
direct	-2284 Oct 07 j 17:18		3.77740 AU	evening set	-2278 Aug 06 j 05:17	0°Ω	
direct	-2284 Dec 13 j 01:50	0°≈		max. Earth dist.	-2278 Aug 00 j 03:17 -2278 Aug 13 j 08:19		6.40849 AU
evening set	-2283 Feb 09 j 12:52			max. Lartii dist.	-2276 Aug 13 J 08.19	1 0633 24	0.40649 AU
evening set	-2283 Feb 19 j 07:23			conjunction	-2278 Aug 14 j 17:00	1° Ω 51'17	1°10'37
	-2265 FC0 19 J 07.25	15 ~		minimum elong	-2278 Aug 14 j 17:50 -2278 Aug 14 j 16:58	1° Ω 51'16	1°10'37 1°10'39
conjunction	-2283 Feb 22 j 21:40	1500051125	10 15! 41	morning rise	-2278 Aug 14 j 10:38	4°Ω39'39	1 1039
minimum elong	-2283 Feb 22 j 21:39	15 ≈51 25 15°≈51'25	1°15'44	morning rise	-2278 Aug 27 j 13.27 -2278 Oct 18 j 03:17	• • • • • •	
max. Earth dist.	-2283 Feb 24 j 15:41	15 ≈31 23 16°≈16'28	6.00161 AU	retrograde	-2278 Oct 18 j 03:17 -2278 Dec 25 j 19:37		
morning rise	-2283 Mar 08 j 09:33	10 ≈10 28 19°≈03'55	0.00101 AU	opposition	-2277 Feb 24 j 06:26		1°51'58
morning rise	v	0° ∺		min. Earth dist.	-2277 Feb 24 j 00:20 -2277 Feb 25 j 09:46		4.40322 AU
rotro ara do	-2283 Apr 26 j 20:22	9° ∺ 22'02		mm. Earm dist.	,		4.40322 AU
retrograde	-2283 Jul 18 j 06:31	9° X 22′02 4° X 27′25	4.02617 AU	4:	-2277 Mar 10 j 02:43	13° κ δι 11° Ω 42'25	
min. Earth dist.	-2283 Sep 14 j 18:04	4° X 2723	-1°-54'-48	direct	-2277 Apr 27 j 22:40	11 δ (42 23	
opposition	-2283 Sep 16 j 00:27		-1*-34*-48	. ,	-2277 Jun 15 j 10:26		
T'	-2283 Oct 24 j 11:57	30°R≈		evening set	-2277 Sep 01 j 20:01	29° Ω 31'39	
direct	-2283 Nov 13 j 00:26	29°≈20'43		n d r	-2277 Sep 03 j 23:38	0° m)	(2004 (ATT
	-2283 Dec 02 j 15:14	0°)(max. Earth dist.	-2277 Sep 12 j 18:06	1° Mp 56'08	6.38046 AU
evening set	-2282 Mar 18 j 16:36	18° ¥ 37'10			2277 8 14: 12:42	20 m 10144	1010100
oomium -ti	2202 A 01:00.05	2101/40112	10 10! 25	conjunction	-2277 Sep 14 j 12:43	2° Mp 19'44	1°18'08
conjunction	-2282 Apr 01 j 08:05	21°) (48'13		minimum elong	-2277 Sep 14 j 12:44	2° Mp 19'44	1°18'08
minimum elong	-2282 Apr 01 j 08:07		1°10'26	morning rise	-2277 Sep 27 j 02:47	5° Mp 06'41	
max. Earth dist.	-2282 Apr 03 j 08:29	22°) 16'30	6.06412 AU	retrograde	-2276 Jan 26 j 10:56	22° Tp 21'25	104504
morning rise	-2282 Apr 15 j 01:56	25°) €00'14		opposition	-2276 Mar 27 j 07:14	17° m 29'51	1°47'34
	-2282 May 07 j 02:31	0°Υ 1.4°W3.6103		min. Earth dist.	-2276 Mar 28 j 15:16	17° Mp 19'40	4.34613 AU
retrograde	-2282 Aug 22 j 11:04	14° Y 36′02		direct	-2276 May 28 j 18:27	12° Tp 30'13	
min. Earth dist.	-2282 Oct 19 j 19:10	9° Y 41'05	4.11552 AU		-2276 Sep 29 j 11:53	0∘ ʊ	
opposition	-2282 Oct 21 j 00:02	9° Υ 31'13	-1°-25'-23	evening set	-2276 Oct 01 j 20:26	0° Ω 31'38	
direct	-2282 Dec 18 j 15:31	4° Υ 31'37		max. Earth dist.	-2276 Oct 12 j 14:38	2° ≏ 57'09	6.29830 AU
evening set	-2281 Apr 24 j 05:52	23° Y 24'40			207/0 : 11/11	20.0	100212.0
	220134 00:00:0	2.0002233	00 20: 51	conjunction	-2276 Oct 14 j 10:03	3° £ 21'42	1°03'30
conjunction	-2281 May 08 j 00:36	26° Y 32'20	0°-39'-51	minimum elong	-2276 Oct 14 j 10:05	3° £ 21'43	1°03'30
minimum elong	-2281 May 08 j 00:39	26° Y 32'22	0°39'50	morning rise	-2276 Oct 26 j 22:37	6° Ω 11'24	
max. Earth dist.	-2281 May 09 j 14:50	26° Y 54'04	6.17306 AU	retrograde	-2275 Feb 27 j 18:56	24° Ω 07'01	1011
morning rise	-2281 May 21 j 19:23	29° Y 39'50		opposition	-2275 Apr 29 j 18:54	19° Ω 14'21	1°11'19
		110		min. Earth dist.	2275 Apr. 20: 22:16	100 0 05!10	4 3 43 3 1 A T T
	-2281 May 23 j 07:13	0°8			-2275 Apr 30 j 23:16		4.24331 AU
	-2281 May 23 j 07:13 -2281 Aug 09 j 18:50	_		direct	-2275 Jun 30 j 10:30		4.24331 AU

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 12

•	omena of Jupiter froical year style is used: The		•	, ·			ige 12
Attention, astronom	-2275 Oct 21 j 19:36	0°M	in astronomical cot	conjunction	-2269 May 13 j 02:41	1° 8 28'35	
evening set	-2275 Nov 02 j 14:35	2°M41'09		minimum elong	-2269 May 13 j 02:43	1° 8 28'37	0°34'08
max. Earth dist.	-2275 Nov 13 j 23:36	5°M19'03	6.18401 AU	max. Earth dist.	-2269 May 14 j 14:57	1° 8 49'07	6.18948 AU
man. Barur dise.	2270 1101 10 j 20.50	0 11017 03	0.10.01.110	morning rise	-2269 May 26 j 21:13	4° 8 35'15	0.109 10110
conjunction	-2275 Nov 15 j 05:39	5°M36'29	0°29'11	Ü	-2269 Jul 15 j 14:46		
minimum elong	-2275 Nov 15 j 05:41	5°M36'31	0°29'08	retrograde	-2269 Sep 29 j 06:45		
morning rise	-2275 Nov 27 j 21:05	8°M32'18		opposition	-2269 Nov 27 j 19:33		0°-19'-7
	-2275 Dec 26 j 18:35	15° M ₊		min. Earth dist.	-2269 Nov 27 j 03:07	18° 8 05'17	4.24954 AU
retrograde	-2274 Apr 04 j 00:28	27°M24'37			-2269 Dec 21 j 17:17	15° ₹ 8	
opposition	-2274 Jun 03 j 23:41	22°M29'15	0°10'13	direct	-2268 Jan 26 j 20:00	12° 8 57'23	
min. Earth dist.	-2274 Jun 04 j 13:20	22°M24'51	4.12501 AU		-2268 Mar 03 j 10:49	15° 8	
desc. node	-2274 Aug 02 j 08:29	17°M35'02		asc. node	-2268 Mar 25 j 04:58		
direct	-2274 Aug 03 j 07:04	17°M34'57			-2268 May 27 j 06:35	Π $^{\circ}0$	
	-2274 Nov 07 j 16:30	0° ∡ ¹		evening set	-2268 Jun 02 j 04:30	1° Ⅱ 17'37	
evening set	-2274 Dec 05 j 21:06	6° ≯ 26′05					
				conjunction	-2268 Jun 15 j 19:31	4° Ⅱ 18'07	0°09'03
conjunction	-2274 Dec 18 j 16:40	9°×728'08	0°-16'-3	minimum elong	-2268 Jun 15 j 19:30	4° Ⅱ 18'07	0°09'06
minimum elong	-2274 Dec 18 j 16:39	9°×728'08	0°16'07	behind sun begin	-2268 Jun 15 j 12:32	4° Ⅱ 14'17	
behind sun begin	-2274 Dec 18 j 15:38	9° × ⁷ 27'31		behind sun end	-2268 Jun 16 j 02:28	4° Ⅱ 21'57	6 20612 ATT
behind sun end max. Earth dist.	-2274 Dec 18 j 17:41	9° 🖈 28'44	(072(7 AII	max. Earth dist.	-2268 Jun 16 j 07:21	4° Ⅲ 24'40 7° Ⅲ 17'27	6.30612 AU
	-2274 Dec 18 j 09:36	9° 🖈 23'57	6.07267 AU	morning rise	-2268 Jun 29 j 08:31		
morning rise	-2274 Dec 31 j 14:24	12°₹31'31 0°る		retrograde	-2268 Oct 29 j 16:50 -2268 Dec 28 j 10:19	24° П 4941 19° П 51'58	0°43'01
retrograde	-2273 Apr 01 j 16:54 -2273 May 10 j 23:06	0 3 2° る 20'53		opposition min. Earth dist.	-2268 Dec 28 j 10:19 -2268 Dec 28 j 11:01	19 Ⅱ 51 38 19° Ⅱ 51'44	4.35321 AU
retrograde	-2273 Jun 19 j 09:19	2 3 20 33		direct	-2267 Feb 27 j 18:56		4.33321 AU
opposition	-2273 Jul 10 j 14:16	27° ×7 21'42	0°-57'-40	uncer	-2267 Jun 22 j 10:11	0°9	
min. Earth dist.	-2273 Jul 10 j 08:44	27° × 23'31	4.03045 AU	evening set	-2267 Jul 05 j 07:37	2°945'52	
direct	-2273 Sep 07 j 14:21	22° × ¹ 28'33	1.03013710	evening sec	2207 341 05 3 07.57	2 3 13 32	
	-2273 Nov 17 j 16:14	0°ਰ		conjunction	-2267 Jul 18 j 14:45	5° © 39'43	0°48'06
evening set	-2272 Jan 10 j 01:01	11° ට 43'48		minimum elong	-2267 Jul 18 j 14:42	5° © 39'41	0°48'08
C	,			max. Earth dist.	-2267 Jul 18 j 00:44	5° © 32'03	6.38854 AU
conjunction	-2272 Jan 23 j 03:21	14° ප 51'50	0°-56'-53	morning rise	-2267 Jul 31 j 18:48	8°531'58	
minimum elong	-2272 Jan 23 j 03:18	14° る 51'48	0°56'57	retrograde	-2267 Nov 29 j 06:26	25°532'42	
max. Earth dist.	-2272 Jan 24 j 01:23	15° පි 05'02	6.00334 AU	opposition	-2266 Jan 28 j 09:46	20° © 38'27	1°30'45
morning rise	-2272 Feb 05 j 08:40	18° ප 01'33		min. Earth dist.	-2266 Jan 29 j 02:09	20°533'07	4.40988 AU
	-2272 Mar 30 j 20:03	0° ≈		direct	-2266 Mar 31 j 16:50	15° © 35'12	
retrograde	-2272 Jun 16 j 13:49	8° ≈ 24'46			-2266 Jul 21 j 08:07	$0^{\circ}\Omega$	
opposition	-2272 Aug 15 j 16:24		-1°-45'-46	evening set	-2266 Aug 06 j 01:25	3° Ω 21'32	
min. Earth dist.	-2272 Aug 14 j 17:45		3.99520 AU			_	
	-2272 Sep 12 j 09:58	30°Rる		conjunction	-2266 Aug 18 j 23:45	6° Ω 10'40	1°12'50
direct	-2272 Oct 12 j 18:58	28° る 27'49		minimum elong	-2266 Aug 18 j 23:43	6° Ω 10'39	1°12'53
	-2272 Nov 12 j 01:16	0° ≈		max. Earth dist.	-2266 Aug 17 j 14:05	5° Ω 52'15	6.41415 AU
	-2271 Feb 02 j 11:12			morning rise	-2266 Aug 31 j 18:52	8° Ω 58'18	
evening set	-2271 Feb 14 j 17:59	17° ≈ 52'56		retrograde	-2266 Sep 29 j 09:58 -2266 Dec 30 j 01:02		
conjunction	-2271 Feb 28 j 03:42	21° ≈ 04'10	-1°-16'-44	opposition	-2265 Feb 28 j 14:01		1°53'06
minimum elong	-2271 Feb 28 j 03:42	21°≈04'09	1°16'47	min. Earth dist.	-2265 Mar 01 j 18:43	$20^{\circ}\Omega53'03$	4.40422 AU
max. Earth dist.	-2271 Mar 01 j 22:19	21°≈29'32	6.00409 AU	direct	-2265 May 02 j 07:14	16° Ω 00'29	4.40422 AO
morning rise	-2271 Mar 13 j 16:46		0.00107110	unect	-2265 Aug 19 j 08:48	0°m)	
	-2271 Apr 07 j 12:15	0° \		evening set	-2265 Sep 06 j 01:00	3° Mp 48'54	
retrograde	-2271 Jul 23 j 07:32	14°) 32′20		max. Earth dist.	-2265 Sep 16 j 19:26	6° Mp 11'38	6.37645 AU
min. Earth dist.	-2271 Sep 19 j 17:52	9°) 37′58	4.03326 AU		1 3	Î	
opposition	-2271 Sep 21 j 01:18	9° ∺ 27'15	-1°-53'-3	conjunction	-2265 Sep 18 j 16:49	6° Mp36′48	1°17'22
direct	-2271 Nov 18 j 01:39	4°) €30'28		minimum elong	-2265 Sep 18 j 16:50	6° Mp36′48	1°17'23
evening set	-2270 Mar 23 j 22:04	23°) €45′23		morning rise	-2265 Oct 01 j 06:29	9° ™ 23'42	
				retrograde	-2264 Jan 30 j 20:41	26° Mp $41'24$	
conjunction	-2270 Apr 06 j 14:29	26° ¥ 56′19	-1°-7'-22	opposition	-2264 Mar 31 j 17:24	21° m 49'44	1°44'21
minimum elong	-2270 Apr 06 j 14:32	26° ¥ 56′21	1°07'23	min. Earth dist.	-2264 Apr 02 j 02:34	21° m 39'10	4.33715 AU
max. Earth dist.	-2270 Apr 08 j 15:29	27°) 24′51	6.07541 AU	direct	-2264 Jun 02 j 03:33	16° m 50'17	
	-2270 Apr 19 j 18:48	0° Υ			-2264 Sep 13 j 18:42	0∘ ত	
morning rise	-2270 Apr 20 j 08:42	0° Y 08′01		evening set	-2264 Oct 06 j 01:30	4° £ 53′28	
retrograde	-2270 Aug 27 j 08:54	19° Y 36'36		max. Earth dist.	-2264 Oct 16 j 20:42	7° ≙ 19'56	6.28508 AU
opposition	-2270 Oct 25 j 19:58	14° Y 32'06	-1°-18'-27				
min. Earth dist.	-2270 Oct 24 j 16:35	14° Y 41′27	4.12980 AU	conjunction	-2264 Oct 18 j 15:13	7° Ω 44'04	0°59'51
direct	-2270 Dec 23 j 15:26	9° Υ 32'10 28° Υ 21'37		minimum elong	-2264 Oct 18 j 15:16	7° £ 44'05	0°59'51
evening set		100tV11177		MA O PRO LID OL PLICO			
8	-2269 Apr 29 j 08:02 -2269 May 06 j 14:14	0° 8		morning rise retrograde	-2264 Oct 31 j 03:49 -2263 Mar 04 j 09:23	10° £ 34'21	

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 13 Attention, astronomical year style is used: The year -2263 in astronomical counting style is the year 2264 BCE in historical counting style.

Attention, astronomical year style is used: The year -2263 in astronomical counting style is the year 2264 BCE in historical counting style.								
opposition	-2263 May 04 j 10:05	23° ≏ 43'49	1°04'15	evening set	-2257 May 04 j 10:43	3° 8 18'32		
min. Earth dist.	-2263 May 05 j 13:24		4.22654 AU					
direct	-2263 Jul 04 j 21:13	18° ≏ 47'16		conjunction	-2257 May 18 j 05:08	6° 8 24'37	0°-28'-11	
	-2263 Oct 05 j 07:18	0°M₊		minimum elong	-2257 May 18 j 05:10	6° 8 24'39	0°28'10	
evening set	-2263 Nov 06 j 23:53	7° ™ 15′06		max. Earth dist.	-2257 May 19 j 14:10	6° 8 43'16	6.20767 AU	
max. Earth dist.	-2263 Nov 18 j 10:04	9° ™ 54'23	6.16508 AU	morning rise	-2257 May 31 j 23:14	9° 8 30'16		
	22(2)	100 W 11105	0000107		-2257 Jun 26 j 03:51			
conjunction	-2263 Nov 19 j 15:19	10°M11'25		retrograde	-2257 Oct 03 j 21:38		00.01.50	
minimum elong	-2263 Nov 19 j 15:20	10°M11'26	0°23'24	opposition	-2257 Dec 02 j 10:06		0°-9'-52	
morning rise	-2263 Dec 02 j 07:36	13°M08'22		min. Earth dist.	-2257 Dec 01 j 20:33 -2256 Jan 31 j 16:16		4.26758 AU	
	-2263 Dec 10 j 09:31 -2262 Mar 02 j 02:23	15° M. 0° √		direct asc. node	-2256 Feb 01 j 15:43			
retrograde	-2262 Apr 08 j 23:32	0 x³ 2°x 7 10'16		asc. node	-2256 May 09 j 21:27	0°Ⅱ		
retrograde	-2262 May 17 j 03:30	30°RM		evening set	-2256 Jun 07 j 00:22	5° П 59'10		
opposition	-2262 Jun 08 j 21:16	27°M14'24	0°00'54	evening set	-2230 Juli 07 J 00.22	3 1137 10		
min. Earth dist.	-2262 Jun 09 j 09:22	27°M10'29		conjunction	-2256 Jun 20 j 14:31	8° ∏ 58'38	0°15'11	
desc. node	-2262 Jun 14 j 02:12	26°M34'06	1.10517110	minimum elong	-2256 Jun 20 j 14:30	8° Д 58'37		
direct	-2262 Aug 08 j 00:18	22°M20'16		behind sun begin	-2256 Jun 20 j 12:16	8° ∏ 57'24		
	-2262 Oct 19 j 20:00	0° ∡ 7		behind sun end	-2256 Jun 20 j 16:43	8° П 59'50		
evening set	-2262 Dec 10 j 13:43	11° ∡ 17′08		max. Earth dist.	-2256 Jun 20 j 23:27	9° Ⅱ 03'32	6.32238 AU	
Č	J			morning rise	-2256 Jul 04 j 02:19	11° Ⅱ 56'47		
conjunction	-2262 Dec 23 j 10:21	14° ∡ °20′27	0°-22'-14	retrograde	-2256 Nov 03 j 00:52	29° Ⅱ 22'25		
minimum elong	-2262 Dec 23 j 10:20	14° ∡ °20′26	0°22'18	opposition	-2255 Jan 01 j 20:45	24° Ⅱ 25'14	0°51'02	
max. Earth dist.	-2262 Dec 23 j 07:17	14° ∡ 18'37	6.05395 AU	min. Earth dist.	-2255 Jan 01 j 23:02	24° Ⅱ 24'29	4.36645 AU	
morning rise	-2261 Jan 05 j 09:06	17° ∡ ¹25′07		direct	-2255 Mar 04 j 08:07	19° Ⅱ 21'43		
	-2261 Mar 04 j 14:58	5°0			-2255 Jun 04 j 21:16	0		
retrograde	-2261 May 16 j 05:09	7° る 23'32		evening set	-2255 Jul 09 j 21:35	7° 5 16'09		
opposition	-2261 Jul 15 j 17:06	2° る 23'53	-1°-6'-1	max. Earth dist.	-2255 Jul 22 j 09:45	9° © 59'28	6.39765 AU	
min. Earth dist.	-2261 Jul 15 j 09:20		4.01488 AU					
	-2261 Aug 03 j 17:27	30°₽ ✓		conjunction	-2255 Jul 23 j 03:21		0°52'40	
direct	-2261 Sep 12 j 12:24	27° ∡ 30′45		minimum elong	-2255 Jul 23 j 03:18		0°52'43	
	-2261 Oct 21 j 15:20	0°る		morning rise	-2255 Aug 05 j 06:03			
evening set	-2260 Jan 15 j 02:09	16° 6 51'08		retrograde	-2255 Dec 03 j 15:20		1005100	
. ,.	22(0.1 20:05.20	20070000	10.11.0	opposition	-2254 Feb 01 j 19:07		1°35'38	
conjunction minimum elong	-2260 Jan 28 j 05:29			min. Earth dist.	-2254 Feb 02 j 14:23		4.41436 AU	
max. Earth dist.	-2260 Jan 28 j 05:26 -2260 Jan 29 j 05:53			direct	-2254 Apr 05 j 05:24 -2254 Jul 03 j 19:16	20 3 01 31 0° Ω		
morning rise	-2260 Feb 10 j 12:13		3.99219 AU	evening set	-2254 Aug 10 j 11:23	7° Ω 47'00		
morning risc	-2260 Mar 11 j 00:34			max. Earth dist.	-2254 Aug 21 j 19:39		6.41342 ATT	
retrograde	-2260 Jun 21 j 19:46	13° ≈ 38'32		max. Earth dist.	223+ Mug 21 j 19.59	10 0013 30	0.41542710	
opposition	-2260 Aug 20 j 21:07	8° ≈ 35'09	-1°-49'-27	conjunction	-2254 Aug 23 j 08:36	10°Ω35'43	1°14'47	
min. Earth dist.	-2260 Aug 19 j 19:41	8° ≈ 43'43	3.98994 AU	minimum elong	-2254 Aug 23 j 08:34		1°14'49	
direct	-2260 Oct 17 j 20:45	3° ≈ 40'48		morning rise	-2254 Sep 05 j 02:46			
	-2259 Jan 15 j 06:56	15° ≈		C	-2254 Sep 12 j 14:05			
evening set	-2259 Feb 20 j 00:32	23° ≈ 07'57			-2254 Dec 19 j 19:05	0° m		
				retrograde	-2253 Jan 03 j 11:06	0°m/20'21		
conjunction	-2259 Mar 05 j 11:35	26° ≈ 19'42	-1°-17'-6		-2253 Jan 18 j 03:01	30° R Ω		
minimum elong	-2259 Mar 05 j 11:35	26° ≈ 19'42	1°17'08	opposition	-2253 Mar 05 j 01:17	25° Ω 28′27	1°53'48	
max. Earth dist.	-2259 Mar 07 j 10:08	26° ≈ 47'22	6.00520 AU	min. Earth dist.	-2253 Mar 06 j 07:02	25° Ω 18′56	4.39853 AU	
morning rise	-2259 Mar 19 j 01:34	29° ≈ 32'54		direct	-2253 May 06 j 17:53	20° Ω 26′58		
	-2259 Mar 20 j 23:37	0° ∀			-2253 Aug 01 j 16:46	0° m		
retrograde	-2259 Jul 28 j 12:26	19°) 45′24		evening set	-2253 Sep 10 j 09:39	8° Mp 16'48		
min. Earth dist.	-2259 Sep 24 j 20:12	14°) € 50'52		max. Earth dist.	-2253 Sep 21 j 04:09	10°My39'56	6.36621 AU	
opposition	-2259 Sep 26 j 03:34	14°) (40'10	-1°-50'-18		22.52.62	110 3 0 4150	101711	
direct	-2259 Nov 23 j 05:58	9°) (42'56		conjunction	-2253 Sep 23 j 01:02		1°16'11	
evening set	-2258 Mar 29 j 05:12	28° ¥ 55'51 0° Y		minimum elong	-2253 Sep 23 j 01:03	11° Mp 04'53	1°16'12	
	-2258 Apr 02 j 20:07	0 1		morning rise	-2253 Oct 05 j 14:08	13° M 52'02 0° <u> </u>		
conjunction	-2258 Apr 11 j 22:15	2° Y ′06'32	-1°-3'-43	retrograde	-2252 Jan 06 j 22:09 -2252 Feb 04 j 11:48	0° 14 '56		
minimum elong	-2258 Apr 11 j 22:19	2°Υ06'34	1°03'44	icuogiauc	-2252 Feb 04 j 11.48 -2252 Mar 04 j 04:16	30°RM)		
max. Earth dist.	-2258 Apr 11 j 22.19 -2258 Apr 13 j 23:38	2° Υ 35'10	6.08790 AU	opposition	-2252 Mar 04 j 04.16 -2252 Apr 05 j 09:19	26°M)23'16	1°40'28	
morning rise	-2258 Apr 15 j 25:38 -2258 Apr 25 j 17:00	5° Υ 17'51	3.00770710	min. Earth dist.	-2252 Apr 06 j 18:34	-	4.32290 AU	
retrograde	-2258 Apr 25 j 17:00 -2258 Sep 01 j 04:34	24° Υ 38'09		direct	-2252 Apr 00 j 18:54 -2252 Jun 06 j 16:56		1.52270 AU	
opposition	-2258 Oct 30 j 16:14	19° Υ 33'51	-1°-10'-50		-2252 Aug 26 j 10:11	0° <u>م</u>		
min. Earth dist.	-2258 Oct 29 j 12:39	19° Υ 43'15	4.14590 AU	evening set	-2252 Oct 10 j 12:23	9° ≏ 30'47		
direct	-2258 Dec 28 j 14:32	14° Y 33'28		max. Earth dist.	-2252 Oct 21 j 07:07		6.26798 AU	
	-2257 Apr 19 j 12:32	0°B			,			

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2252 in astronomical counting style is the year 2253 BCE in historical counting style. -2252 Oct 23 j 02:00 12° \alpha 22'04 0°55'40 morning rise -2246 Apr 30 j 22:07 10°**Υ**20'20 conjunction -2252 Oct 23 j 02:02 12°**2**22'05 $-2246 \text{ Sep } 05 \text{ j } 21:38 \quad 29^{\circ} \Upsilon 30'38$ minimum elong 0°55'39 retrograde -2252 Nov 04 j 15:02 15°**£**13'13 -2246 Nov 03 j 07:56 24° Υ 35'09 4.16561 AU morning rise min. Earth dist. -2246 Nov 04 j 09:01 24°**Υ**26'37 -1°-3'00 -2251 Jan 20 j 07:06 0°M opposition -2245 Jan 02 j 12:32 19° $\Upsilon 25$ '46 retrograde -2251 Mar 09 j 07:57 3°M23'57 direct -2245 Apr 01 j 13:51 -2251 Apr 27 j 11:52 30°Ŗჲ 0° 8 -2245 May 09 j 09:02 opposition -2251 May 09 j 08:18 28°**△**30'41 0°56'18 evening set 8°**8**05'31 28°**≏**22'27 min. Earth dist. -2251 May 10 j 10:01 4.20762 AU -2251 Jul 09 j 15:22 conjunction direct 23°**♀**34'30 -2245 May 23 j 03:16 11°**8**10'40 0°-22'-13 -2251 Sep 14 j 22:08 0°M minimum elong -2245 May 23 j 03:18 11°**8**10'41 0°22'12 -2245 May 24 j 10:05 11°**8**27'58 evening set -2251 Nov 11 j 15:51 12° ML07'03 max. Earth dist. 6.22692 AU -2245 Jun 05 j 20:37 14°**8**15'11 max. Earth dist. -2251 Nov 23 j 06:56 14°ML49'46 6.14632 AU morning rise -2245 Jun 09 j 05:15 15°8 conjunction -2251 Nov 24 j 08:03 15°ML04'28 0°17'11 -2245 Aug 30 j 02:58 $\mathbb{I}^{\circ 0}$ minimum elong -2251 Nov 24 j 08:04 15°ML04'29 0°17'09 retrograde -2245 Oct 08 j 06:28 2°**Ⅲ**23'15 -2251 Nov 24 j 00:24 15°M -2245 Nov 16 j 06:26 30°R8 morning rise -2251 Dec 07 j 01:00 18°ML02'34 opposition -2245 Dec 06 j 20:42 27°**8**22'39 0°00'-55 -2250 Feb 01 j 05:18 0°**∡**7 min. Earth dist. -2245 Dec 06 j 08:52 27°**8**26'38 4.28471 AU retrograde -2250 Apr 14 j 05:24 7°**х** 13′42 asc. node -2245 Dec 12 j 14:47 26°836'32 desc. node -2250 Apr 22 j 23:26 7°**х** 06′28 direct -2244 Feb 05 j 06:22 22°**8**19'48 opposition -2250 Jun 14 j 01:42 2°**∡**17'26 0°-9'-2 -2244 Apr 20 j 19:35 $\Pi^{\circ}0$ min. Earth dist. -2250 Jun 14 j 11:15 2°**х** 14′20 4.08833 AU evening set -2244 Jun 11 j 16:37 10°**Ⅲ**31'37 -2250 Jul 02 j 11:10 30°RML direct -2250 Aug 12 j 23:56 27° ML 23'38 conjunction -2244 Jun 25 і 05:37 13°**Д**30'04 0°21'01 -2250 Sep 22 j 16:28 minimum elong -2244 Jun 25 j 05:35 13°**Д**30'03 0°21'04 0°×7 -2250 Dec 15 j 12:51 16° ₹24'55 max. Earth dist. -2244 Jun 25 j 08:59 13°**Ⅲ**31'55 6 33602 AU evening set -2244 Jul 08 j 16:21 16°**Ⅲ**27'11 morning rise -2250 Dec 28 j 10:14 19° **x** 29'12 0°-28'-37 -2244 Sep 17 j 23:45 conjunction 000 -2250 Dec 28 j 10:12 19° ₹29'10 0°28'42 -2244 Nov 07 j 08:35 3°5947'30 retrograde minimum elong -2250 Dec 28 j 10:13 19°**х** 29'11 -2244 Dec 28 j 08:21 30°RⅡ max. Earth dist. 6.04061 AU -2249 Jan 10 j 10:14 22°**尽** 34'58 -2243 Jan 06 j 04:27 28°**Д**50'51 0°58'31 opposition morning rise -2243 Jan 06 j 10:29 28°**Д**48'52 4.37580 AU -2249 Feb 11 j 20:36 0°る min. Earth dist. -2249 May 21 j 13:34 12°る40'00 direct -2243 Mar 08 j 20:40 23°**Ⅲ**47'16 retrograde 7°る39'44 -1°-14'-17 -2249 Jul 21 j 00:53 -2243 May 15 j 22:21 0°5 opposition -2249 Jul 20 j 13:13 7°る43'36 4.00682 AU -2243 Jul 14 j 08:48 11°5540'07 min. Earth dist. evening set -2249 Sep 17 j 15:55 2°정46'34 direct -2248 Jan 20 j 07:19 22°る08'59 -2243 Jul 27 j 13:30 14°532'24 0°56'50 evening set conjunction minimum elong -2243 Jul 27 j 13:27 14°532'22 0°56'53 conjunction -2248 Feb 02 j 11:50 25° ₹ 18'33 -1°-5'-6 max. Earth dist. -2243 Jul 26 j 16:59 14°521'13 6.40183 AU minimum elong -2248 Feb 02 j 11:47 25° **궁**18'31 1°05'10 morning rise -2243 Aug 09 j 14:52 17°523'03 max. Earth dist. -2248 Feb 03 j 17:47 25°**궁**36'32 5.99024 AU -2243 Oct 14 j 12:42 $0^{\circ}\Omega$ -2248 Feb 15 j 19:27 28°る29'50 -2243 Dec 07 j 21:12 4°**Ω**20′01 morning rise retrograde -2248 Feb 22 j 03:40 0°≈ -2242 Feb 01 j 19:40 30°Rூ -2248 May 06 j 21:54 15°≈ -2242 Feb 06 j 03:11 29°526'34 1°39'55 opposition -2248 Jun 27 j 04:04 18°≈57'29 -2242 Feb 06 j 23:41 29°5519'56 4.41353 AU retrograde min. Earth dist. -2248 Aug 17 j 21:14 15°R≈ direct -2242 Apr 09 i 14:01 24°523'39 min. Earth dist. -2248 Aug 25 i 00:51 14°≈02'36 3.99460 AU -2242 Jun 13 i 07:40 $0^{\circ}\Omega$ opposition -2248 Aug 26 i 03:19 13°≈53'40 -1°-52'-19 evening set -2242 Aug 14 j 20:14 $12^{\circ}\Omega$ 09'57 direct -2248 Oct 23 i 03:11 8°≈58'58 max. Earth dist. -2242 Aug 26 j 01:39 14° **Ω**37'12 6.40753 AU -2248 Dec 24 j 12:33 15°≈ -2247 Feb 25 j 07:59 28°≈24'20 conjunction -2242 Aug 27 j 16:25 14° Ω58'28 1°16'16 evening set -2247 Mar 04 j 01:54 0°**₩** -2242 Aug 27 j 16:24 14° Ω58'28 1°16'18 minimum elong -2242 Aug 27 j 19:12 15°**Ω** -2242 Sep 09 j 09:41 17° **Ω**45'37 conjunction -2247 Mar 10 j 19:54 1°**)** (35′59 -1°-16′-55 morning rise minimum elong -2247 Mar 10 j 19:54 1°**)** 35'59 1°16'57 -2242 Nov 11 j 10:46 0° mb max. Earth dist. -2247 Mar 12 j 20:13 2°**₭**04'36 6.01574 AU retrograde -2241 Jan 07 j 22:31 4° Mp 46'04morning rise -2247 Mar 24 j 10:48 4°**)**€49'02 -2241 Mar $08 \text{ j } 19:21 \quad 30^{\circ} \text{R} \Omega$ -2247 Aug 02 j 12:22 24°**米** 54'33 -2241 Mar 09 j 13:00 29° **Ω** 54'22 1°53'51 retrograde opposition -2247 Sep 29 j 19:11 20° **★** 00'16 4.05582 AU min. Earth dist. -2241 Mar 10 j 20:27 29°**Ω**44'19 min. Earth dist. 4.38810 AU -2247 Oct 01 j 03:31 19° **★** 49'15 -1°-46'-46 direct -2241 May 11 j 05:44 $24^{\circ}\Omega 53'13$ opposition -2241 Jul 11 j 11:44 direct -2247 Nov 28 j 07:21 14°**米**51'31 0° M $0^{\circ}\Upsilon$ -2246 Mar 16 j 18:34 evening set -2241 Sep 14 j 18:59 12° m 45'49 evening set -2246 Apr 03 j 09:41 3°**Y**59'46 max. Earth dist. -2241 Sep 25 j 11:39 15° m 08'29 6.35198 AU conjunction -2246 Apr 17 j 03:09 7°**Υ**09'48 0°-59'-43 conjunction -2241 Sep 27 j 09:53 15° m/34'16 1°14'32 minimum elong -2246 Apr 17 j 03:12 7°**Υ**09'50 0°59'43 -2241 Sep 27 j 09:54 15° m 34'17 minimum elong 1°14'33

max. Earth dist.

-2246 Apr 19 j 02:13

7°**Υ**37'00 6.10653 AU

morning rise

-2241 Oct 09 j 22:50 18° m 21'55

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2241 in astronomical counting style is the year 2242 BCE in historical counting style. -2241 Dec 06 i 19:55 0∘**⊽** retrograde -2235 Aug 07 j 10:56 29° **€** 58'12 -2240 Feb 09 j 04:37 5°**£**51'19 min. Earth dist. -2235 Oct 04 j 18:04 25° \(\) 03'34 4.07057 AU retrograde -2240 Apr 10 j 02:44 0°£59'30 1°35'54 opposition opposition -1°-42'-32 0°**2**49'18 4.30590 AU min. Earth dist. -2240 Apr 11 j 10:47 -2235 Dec 03 j 08:26 19° **€** 54'44 direct $0^{\circ}\Upsilon$ -2240 Apr 17 j 22:58 -2234 Feb 26 j 08:36 30°R, Mp direct -2240 Jun 11 j 06:57 -2234 Apr 08 j 12:11 8° Y58'5826° m 00'55 evening set -2240 Aug 03 j 04:08 0∘ಹ -2234 Apr 22 j 06:12 12°**Y**08'29 0°-55'-22 evening set -2240 Oct 15 j 00:46 14°**£**11'31 conjunction max. Earth dist. -2234 Apr 22 j 06:15 12°**Y**′08′31 -2240 Oct 25 j 23:13 16°**£**41'05 6.24982 AU minimum elong 0°55'21 -2234 Apr 24 j 04:47 max. Earth dist. 12°**Ƴ**35'17 6.12340 AU 15°**Ƴ**18'17 conjunction -2240 Oct 27 j 14:41 17°**೨**03'39 0°51'03 morning rise -2234 May 06 j 01:10 -2240 Oct 27 j 14:43 17°**£**03'40 -2234 Jul 18 j 22:15 minimum elong 0°51'02 0°8 -2240 Nov 09 j 03:57 19°**♀**55'42 -2234 Sep 10 j 12:26 4°819'33 morning rise retrograde -2240 Dec 26 j 14:06 0°M -2234 Nov 03 j 14:07 30°RY retrograde -2239 Mar 14 j 08:40 8°M14'57 min. Earth dist. -2234 Nov 08 j 00:19 29°**Υ**24'04 4.18285 AU opposition -2239 May 14 j 08:33 3°M21'24 0°47'50 opposition -2234 Nov 09 j 00:05 29°**Y**16'00 0°-54'-52 min. Earth dist. -2239 May 15 j 08:34 3°ጤ13'43 4.18953 AU direct -2233 Jan 07 j 06:47 24°**Y**14'51 -2239 Jun 12 j 06:35 30°R € -2233 Mar 11 j 08:40 0°8 direct -2239 Jul 14 j 11:36 28°**£**25'42 evening set -2233 May 14 j 06:34 12°850'30 -2239 Aug 15 j 09:09 0°M -2233 May 23 j 22:27 15°8 -2239 Nov 07 j 13:48 15°M evening set -2239 Nov 16 j 09:34 17° ML02'23 conjunction -2233 May 28 i 00:15 15° \$54'46 0°-16'-11 max. Earth dist. -2239 Nov 28 i 03:35 19° ML47'27 6.12994 AU minimum elong -2233 May 28 i 00:16 15°**8**54'47 0°16'09 max. Earth dist. -2233 May 29 i 01:51 16°**8**09'06 6.24323 AU conjunction -2239 Nov 29 i 02:14 20°ML00'44 0°10'43 morning rise -2233 Jun 10 j 17:08 18°\(258'22\) -2239 Nov 29 j 02:14 20°ML00'44 0°10'41 -2233 Aug 03 j 14:04 $0^{\circ}\Pi$ minimum elong -2239 Nov 28 j 20:00 19°M 57'06 -2233 Oct 12 j 16:32 6°**Ⅲ**58'55 behind sun begin retrograde -2239 Nov 29 j 08:29 20° 11.04'23 -2233 Oct 22 j 12:33 6°**Ⅱ**49'16 behind sun end asc. node -2239 Dec 11 j 20:12 22°M59'57 opposition -2233 Dec 11 j 07:11 1°II58'52 0°07'59 morning rise -2238 Jan 11 j 21:37 -2233 Dec 10 j 22:28 2°**П**01'47 4.29872 AU 0°×7 min. Earth dist. -2238 Mar 01 j 15:29 -2233 Dec 26 j 12:43 30°R8 desc. node 8°**∡**¹47'17 -2238 Apr 19 j 10:59 12°**尽** 19'18 -2232 Feb 09 j 21:54 26°**8**55'48 direct retrograde -2238 Jun 19 j 07:03 7°**∡**122'28 0°-19'-1 -2232 Mar 26 j 16:19 Π $^{\circ}$ 0 opposition -2238 Jun 19 j 12:35 7°**尽**20'40 4.07508 AU -2232 Jun 16 j 08:26 15°**Ⅲ**04'46 min. Earth dist. evening set -2238 Aug 18 j 00:02 direct 2°**₹**28'53 -2238 Dec 20 j 12:38 21° ₹33'12 -2232 Jun 29 j 20:36 18°**Ⅲ**02'24 0°26'44 evening set conjunction -2232 Jun 29 j 20:34 18°**Ⅲ**02'22 0°26'47 minimum elong conjunction -2237 Jan 02 j 11:01 24° ₹38'17 0°-34'-49 max. Earth dist. -2232 Jun 29 j 21:31 18°**耳**02'53 6.34676 AU minimum elong -2237 Jan 02 j 10:59 24° ₹38'15 0°34'53 morning rise -2232 Jul 13 j 06:00 20°**I**58'34 max. Earth dist. -2237 Jan 02 j 16:49 24°**х** 41'45 6.03167 AU -2232 Aug 26 j 04:37 0ಂತ morning rise -2237 Jan 15 j 11:52 27° ₹ 44'51 retrograde -2232 Nov 11 j 14:59 8°9514'43 -2237 Jan 25 j 01:22 0°る -2231 Jan 10 j 12:56 3°518'35 1°05'42 opposition -2237 May 26 j 22:38 17°る54'26 min. Earth dist. -2231 Jan 10 j 20:29 3°916'06 4.38270 AU retrograde -2237 Jul 26 j 07:42 12°₹53'37 -1°-21'-54 -2231 Feb 07 j 03:25 30°R П opposition min. Earth dist. -2237 Jul 25 j 18:14 12°중58'06 4.00317 AU -2231 Mar 13 j 07:39 28°**Ⅲ**15'04 direct -2237 Sep 22 i 20:19 direct 8°**る**00'24 -2231 Apr 16 j 22:08 evening set -2236 Jan 25 j 11:48 27°る23'28 evening set -2231 Jul 18 j 20:42 16°506'55 -2236 Feb 05 j 09:33 -2231 Jul 30 j 23:14 18°\$45'02 0°≈ max. Earth dist. 6.40424 AU -2236 Feb 07 j 17:14 0°≈33'22 -1°-8'-31 conjunction -2231 Aug 01 j 00:01 18°\$58'34 1°00'42 conjunction -2236 Feb 07 i 17:11 0°≈33'21 1°08'35 -2231 Jul 31 j 23:58 18°558'32 1°00'45 minimum elong minimum elong -2236 Feb 09 j 02:00 0°≈53'00 5.99186 AU morning rise -2231 Aug 14 j 00:17 21°5548'39 max. Earth dist. -2236 Feb 21 j 02:01 3°≈45'02 -2231 Sep 22 j 19:02 morning rise $0^{\circ}\Omega$ -2231 Dec 12 j 06:32 -2236 Apr 11 j 19:51 15°≈ retrograde 8°**Ω**45'14 retrograde -2236 Jul 02 j 08:24 24°≈11'07 opposition -2230 Feb 10 j 12:48 3°**£**52′09 1°43'42 min. Earth dist. -2236 Aug 30 j 02:21 19°≈16'42 4.00163 AU min. Earth dist. -2230 Feb 11 j 12:01 3°**Ω**44'40 4.41156 AU opposition -2236 Aug 31 j 07:00 19°≈07'00 -1°-54'-14 -2230 Mar 16 j 21:45 30° R 55 -2236 Oct 06 j 15:18 15°R≈ -2230 Apr 14 j 02:19 28°549'25 direct -2236 Oct 28 j 05:40 14°≈12'00 -2230 May 12 j 10:55 direct 0 $^{\circ}$ Ω -2230 Aug 11 j 19:36 15°**Ω** -2236 Nov 18 j 22:08 15°≈ -2235 Feb 15 j 02:47 0°**)**€ evening set -2230 Aug 19 j 05:58 16°**Ω**36'35 evening set -2235 Mar 02 j 13:24 3°**)**€35'10 max. Earth dist. -2230 Aug 30 j 09:21 19°**Ω**03'01 6.40128 AU conjunction -2235 Mar 16 j 02:11 6°**)** 46'41 -1°-16'-9 conjunction -2230 Sep 01 j 01:20 19° Ω 24'59 1°17'22 minimum elong -2235 Mar 16 j 02:12 6°**)**(46'42 1°16'11 minimum elong -2230 Sep 01 j 01:19 19°Ω24'59 1°17'23 -2235 Mar 18 j 02:37 7°**)**€15'17 6.02733 AU -2230 Sep 13 j 17:42 22°**Ω**12'02 max. Earth dist. morning rise

-2235 Mar 29 j 17:51

morning rise

9°**)** 59'32

-2230 Oct 21 j 04:09

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 16

Attention, astronomical year style is used: The year -2229 in astronomical counting style is the year 2230 BCE in historical counting style.								
retrograde	-2229 Jan 12 j 09:32	9° m 15'39		evening set	-2223 Mar 07 j 15:43	8°) 37′06		
opposition	-2229 Mar 14 j 02:07	4° m) 24'01	1°53'16	<i>B</i>	,			
min. Earth dist.	-2229 Mar 15 j 09:03	4° m) 14'09	4.37830 AU	conjunction	-2223 Mar 21 j 05:30	11°)(48'33	-1°-14'-51	
	-2229 Apr 25 j 12:05	30°R Ω		minimum elong	-2223 Mar 21 j 05:32		1°14'53	
direct	-2229 May 15 j 17:06	29° Ω 23'15		max. Earth dist.	-2223 Mar 23 j 07:19		6.03787 AU	
	-2229 Jun 05 j 01:10	0°m		morning rise	-2223 Apr 03 j 21:46			
evening set	-2229 Sep 19 j 04:59	17° mp 18'04		<i>y</i> 21	-2223 Jun 16 j 00:58	$0^{\circ}\Upsilon$		
max. Earth dist.	-2229 Sep 29 j 22:32	19° m 41'42	6.33956 AU	retrograde	-2223 Aug 12 j 06:37	4°Υ53'20		
	1 3	•		S	-2223 Oct 09 j 09:05			
conjunction	-2229 Oct 01 j 19:27	20° Mp 06'51	1°12'28	opposition	-2223 Oct 10 j 19:40		-1°-37'-43	
minimum elong	-2229 Oct 01 j 19:29	20° m 06'52	1°12'28	min. Earth dist.	-2223 Oct 09 j 13:12		4.08342 AU	
morning rise	-2229 Oct 14 j 08:09	22° m 54'54		direct	-2223 Dec 08 j 04:25	24°) 49′37		
	-2229 Nov 16 j 10:35	0∘ ⊽			-2222 Feb 04 j 13:31	$0^{\circ}\mathbf{Y}$		
retrograde	-2228 Feb 13 j 22:58	10° ≏ 30'12		evening set	-2222 Apr 13 j 12:15	13° Y 50'47		
opposition	-2228 Apr 14 j 21:22	5° Ω 38'15	1°30'44					
min. Earth dist.	-2228 Apr 16 j 05:14	5° £ 28'07	4.29161 AU	conjunction	-2222 Apr 27 j 06:27	16° Ƴ 59'49	0°-50'-45	
direct	-2228 Jun 15 j 23:52	0° ≏ 40'06		minimum elong	-2222 Apr 27 j 06:30	16° Ƴ 59'51	0°50'45	
evening set	-2228 Oct 19 j 13:16	18° ≏ 53'28		max. Earth dist.	-2222 Apr 29 j 01:15	17° Ƴ 24'21	6.13742 AU	
max. Earth dist.	-2228 Oct 30 j 13:11		6.23501 AU	morning rise	-2222 May 11 j 01:41			
	,			8 21	-2222 Jun 26 j 03:14	0°8		
conjunction	-2228 Nov 01 j 03:16	21° Ω 46'15	0°46'09	retrograde	-2222 Sep 15 j 01:16	9° 8 02'41		
minimum elong	-2228 Nov 01 j 03:18		0°46'08	opposition	-2222 Nov 13 j 13:19	3° 8 59'31	0°-46'-38	
morning rise	-2228 Nov 13 j 17:01	24° £ 39'08	0 10 00	min. Earth dist.	-2222 Nov 12 j 15:32	4° 8 06'55	4.19670 AU	
morning rise	-2228 Dec 07 j 17:08	0°M		mm. Earth dist.	-2222 Dec 17 j 20:54		1.17070710	
retrograde	-2227 Mar 19 j 07:21	13°ML05'39		direct	-2221 Jan 12 j 00:03			
opposition	-2227 May 19 j 08:20	8°M11'38	0°39'06	uncet	-2221 Feb 06 j 10:51	0°8		
min. Earth dist.	-2227 May 19 j 05:20 -2227 May 20 j 05:00	8°M05'01	4.17528 AU		-2221 Yeb 00 j 10:31 -2221 May 07 j 16:06			
direct	-2227 Jul 19 j 06:30	3°M16'17	4.17328 AU	evening set	-2221 May 19 j 02:12			
direct	-2227 Jul 19 j 00:30 -2227 Oct 21 j 07:28			evening set	-2221 Way 19 J 02.12	17 03049		
ovening set				agniunation	-2221 Jun 01 j 19:37	200824124	0°-10'-10	
evening set	-2227 Nov 21 j 02:27	21 11633 42		conjunction	-2221 Jun 01 j 19:38		0°10'08	
aamiumatian	-2227 Dec 03 j 19:46	249 m 54140	0°04'18	minimum elong	-2221 Jun 01 j 13:03		0 1008	
conjunction	-2227 Dec 03 j 19:47			behind sun begin behind sun end				
minimum elong			0°04'15		-2221 Jun 02 j 02:13		(25(14 AII	
behind sun begin	-2227 Dec 03 j 11:53			max. Earth dist.	-2221 Jun 02 j 19:04		6.25614 AU	
behind sun end	-2227 Dec 04 j 03:40	24°M59'27	C 117C4 ATT	morning rise	-2221 Jun 15 j 11:37			
max. Earth dist.	-2227 Dec 03 j 02:06	24°M44'27	6.11764 AU	1	-2221 Jul 15 j 05:30	0°Ⅱ 0°Ⅲ		
morning rise	-2227 Dec 16 j 14:22			asc. node	-2221 Sep 02 j 01:44	8° Ⅱ 25'28		
	-2227 Dec 25 j 13:55	0° ∡ ¹		retrograde	-2221 Oct 17 j 01:59		001 (110	
desc. node	-2226 Jan 09 j 10:38	3° х 21′39		opposition	-2221 Dec 15 j 16:54	6° Ⅲ 32'05	0°16'42	
retrograde	-2226 Apr 24 j 16:19	17°×20'46		min. Earth dist.	-2221 Dec 15 j 10:08	6° Ⅲ 34'21	4.30974 AU	
opposition	-2226 Jun 24 j 10:32	12° ₹ 23'22	0°-28'-39	direct	-2220 Feb 14 j 11:28	1° Ⅱ 28'58		
min. Earth dist.	-2226 Jun 24 j 14:10	12° ≯ 22'11	4.06573 AU	evening set	-2220 Jun 20 j 23:51	19°Щ36′01		
direct	-2226 Aug 23 j 00:23	7° ∡ ¹29'55						
evening set	-2226 Dec 25 j 10:29	26° ₹ 35'58		conjunction	-2220 Jul 04 j 10:48		0°32'14	
		_		minimum elong	-2220 Jul 04 j 10:46		0°32'17	
conjunction	-2225 Jan 07 j 09:37		0°-40'-35	max. Earth dist.	-2220 Jul 04 j 07:00		6.35504 AU	
minimum elong	-2225 Jan 07 j 09:34	29° ∡ ¹41'35	0°40'39	morning rise	-2220 Jul 17 j 19:10			
max. Earth dist.	-2225 Jan 07 j 18:34	29° ∡ 46′58	6.02596 AU		-2220 Aug 08 j 00:17	0.20		
	-2225 Jan 08 j 16:22	0°る		retrograde	-2220 Nov 15 j 23:04			
morning rise	-2225 Jan 20 j 11:34	2°₹48'52		opposition	-2219 Jan 14 j 21:31	7° © 45'23	1°12'27	
retrograde	-2225 Jun 01 j 02:09	23° る 01'31		min. Earth dist.	-2219 Jan 15 j 07:38	7°5542'04	4.38800 AU	
opposition	-2225 Jul 31 j 11:15	18° ට 00'10	-1°-28'-38	direct	-2219 Mar 17 j 19:52	2° © 41'53		
min. Earth dist.	-2225 Jul 30 j 18:35	18° る 05'42	4.00198 AU	evening set	-2219 Jul 23 j 08:10	20°533'03		
direct	-2225 Sep 27 j 20:21	13° る 06'47		max. Earth dist.	-2219 Aug 04 j 08:44	23° © 10'06	6.40612 AU	
	-2224 Jan 19 j 23:38	0° ≈						
evening set	-2224 Jan 30 j 13:22	2° ≈ 29'46		conjunction	-2219 Aug 05 j 10:27	23° © 24'09	1°04'12	
				minimum elong	-2219 Aug 05 j 10:24		1°04'14	
conjunction	-2224 Feb 12 j 19:43	5° ≈ 39'56	-1°-11'-18	morning rise	-2219 Aug 18 j 09:19	26°5513'38		
minimum elong	-2224 Feb 12 j 19:41	5° ≈ 39'54	1°11'21		-2219 Sep 05 j 01:18	0 $^{\circ}$ Ω		
max. Earth dist.	-2224 Feb 14 j 06:43	6° ≈ 00'52	5.99499 AU	retrograde	-2219 Dec 16 j 13:54	13° Ω 09′59		
morning rise	-2224 Feb 26 j 05:25	8° ≈ 51'49		opposition	-2218 Feb 14 j 22:31	8° Ω 17'11	1°46'52	
	-2224 Mar 23 j 18:41	15° ≈		min. Earth dist.	-2218 Feb 15 j 22:10	8° Ω 09'35	4.41011 AU	
retrograde	-2224 Jul 07 j 09:41	29° ≈ 15'49		direct	-2218 Apr 18 j 12:27	3° Ω 14'44		
min. Earth dist.	-2224 Sep 04 j 02:13	24° ≈ 21′09	4.00879 AU		-2218 Jul 26 j 00:57	15° Ω		
opposition	-2224 Sep 05 j 07:04	24° ≈ 11'22	-1°-55'-14	evening set	-2218 Aug 23 j 15:09	21° Ω 02'15		
direct	-2224 Nov 02 j 06:50	19° ≈ 15'55		max. Earth dist.	-2218 Sep 03 j 15:41		6.39634 AU	
	-2223 Jan 28 j 06:13	0°)			- •			
	•							

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2218 in astronomical counting style is the year 2219 BCE in historical counting style. -2218 Sep 05 j 09:27 23° **Ω**50'26 1°17'59 retrograde -2212 Jul 12 j 14:13 4° **)** 27'39 conjunction -2218 Sep $05 \text{ j } 09:26 \quad 23^{\circ} \Omega 50'25$ -2212 Sep 05 j 20:00 30°R≈ minimum elong 1°18'01 -2218 Sep 18 j 01:09 $26^{\circ}\Omega$ 37'22 min. Earth dist. -2212 Sep 09 j 03:36 29°≈33'04 4.01340 AU morning rise -2212 Sep 10 j 09:20 29°≈22'58 -2218 Oct 03 j 16:18 0° M opposition -1°-55'-22 -2217 Jan 16 j 22:08 13° m 43'47 -2212 Nov 07 j 08:10 24°≈27'09 retrograde direct -2217 Mar 18 j 15:07 8° Mp 52'13 -2211 Jan 06 j 05:03 0°**)**€ opposition 1°51'59 13°**) (**47′22 -2211 Mar 12 j 21:29 min. Earth dist. -2217 Mar 19 j 23:26 8° Mp 41'55 4.36997 AU evening set direct -2217 May 20 j 06:33 3° m 51'44 evening set -2217 Sep 23 j 13:52 21° m 48'06 conjunction -2211 Mar 26 j 12:03 16° **★** 58'48 -1°-12'-56 -2211 Mar 26 j 12:05 16°**米** 58'49 max. Earth dist. -2217 Oct 04 j 07:34 24° m 12'13 6.32830 AU minimum elong 1°12'57 -2211 Mar 28 j 12:48 17°**米**27'25 max. Earth dist. 6.04678 AU -2217 Oct 06 j 04:06 24° m 37'12 -2211 Apr 09 j 05:14 conjunction 1°09'58 morning rise 20°**)** 11′21 -2217 Oct 06 j 04:08 24° m 37'13 -2211 May 23 j 20:29 $0^{\circ}\Upsilon$ minimum elong 1°09'57 morning rise -2217 Oct 18 j 16:36 27° m 25'39 retrograde -2211 Aug 17 j 03:39 9°Y57'17 -2217 Oct 30 j 07:42 0∘**⊽** min. Earth dist. -2211 Oct 14 j 10:45 5°**Υ**02'37 4.09566 AU retrograde -2216 Feb 18 j 14:26 15°**♀**06'33 opposition -2211 Oct 15 j 17:05 4°Υ′52'15 -1°-32'-3 opposition -2216 Apr 19 j 14:43 10°**£**14'23 1°25'01 -2211 Dec 05 j 02:06 30°**₹** min. Earth dist. -2216 Apr 20 j 20:49 10°**♀**04'48 4.27791 AU direct -2211 Dec 13 j 04:28 29°**)** 53'14 direct -2216 Jun 20 j 13:14 5°**≏**16'38 -2211 Dec 21 j 08:01 $0^{\circ}\Upsilon$ evening set -2216 Oct 24 j 00:41 23° **2**32'51 evening set -2210 Apr 18 j 15:41 18° Υ 51'24 max. Earth dist. -2216 Nov 04 j 03:20 26°**2**05'52 6.21997 AU conjunction -2210 May 02 j 10:19 21°**Υ**'59'57 0°-45'-37 conjunction -2216 Nov 05 j 14:54 26°**2**26'21 0°40'59 minimum elong -2210 May 02 j 10:23 21°**Υ**'59'58 0°45'37 minimum elong -2216 Nov 05 i 14:57 26°**2**26'22 0°40'58 max. Earth dist. -2210 May 04 j 04:22 22°**Υ**'23'58 6.15244 AU -2210 May 16 j 05:22 25°**Y** 08'29 morning rise -2216 Nov 18 i 05:05 29° \alpha 20'04 morning rise -2216 Nov 21 j 03:02 0°M -2210 Jun 07 j 03:01 0°8 -2215 Feb 08 i 02:39 15°ML -2210 Sep 19 j 18:11 13°853'41 retrograde -2215 Mar 24 j 08:01 17° ML 54'16 -2210 Nov 17 j 09:18 8°**8**57'49 4.21310 AU retrograde min. Earth dist. -2215 May 08 j 04:49 15°RML opposition -2215 May 24 j 07:16 12°M 59'53 0°30'07 -2209 Jan 16 j 20:52 3°**8**49'18 opposition direct -2215 May 25 j 03:02 12°M 53'32 4.15964 AU -2209 Apr 19 j 18:36 15°8 min. Earth dist. -2209 May 24 j 00:44 22°818'01 -2215 Jul 24 j 02:00 8°ML04'50 direct evening set -2215 Oct 01 j 13:04 15°M -2215 Nov 19 j 07:07 25°M 17'14 desc. node conjunction -2209 Jun 06 j 17:27 25°**8**20'38 -2215 Nov 25 j 18:43 26°M47'52 0°03'56 evening set minimum elong -2209 Jun 06 j 09:14 25°**8**16'05 behind sun begin -2215 Dec 08 j 12:42 29°ML47'56 0°-2'-16 -2209 Jun 07 j 01:39 25°**8**25'11 conjunction behind sun end minimum elong -2215 Dec 08 j 12:42 29°ML47'56 0°02'20 max. Earth dist. -2209 Jun 07 j 13:27 25°**8**31'46 6.27297 AU behind sun begin -2215 Dec 08 j 04:39 29°M43'12 morning rise -2209 Jun 20 j 08:42 28°**8**22'17 behind sun end -2215 Dec 08 j 20:44 29°M52'39 -2209 Jun 27 j 18:37 0°**Ⅱ** max. Earth dist. -2215 Dec 07 j 21:32 29°M39'00 6.10281 AU asc. node -2209 Jul 12 j 07:28 3°**II**07'03 -2215 Dec 09 j 09:11 0° ⊀ -2209 Oct 21 j 11:52 16°**Д**08'54 retrograde morning rise -2215 Dec 21 j 08:18 2° ₹ 49'03 -2209 Dec 20 j 04:26 11°**Д**09'58 0°25'25 opposition -2214 Apr 29 j 19:24 22° ₹22'38 min. Earth dist. -2209 Dec 19 j 23:11 11°**Д**11'43 4.32594 AU retrograde -2214 Jun 29 j 13:37 17° **₹** 24'42 0°-38'-8 -2208 Feb 19 j 03:20 6°**Д**06'41 opposition direct -2208 Jun 25 j 15:48 24°**Д**09'39 -2214 Jun 29 j 13:51 17° ₹24'38 4.05316 AU min. Earth dist. evening set direct -2214 Aug 27 j 21:41 12° ₹31'24 -2208 Jul 09 i 01:38 27°**II**05'23 0°37'33 -2214 Dec 23 i 06:47 0°궁 conjunction evening set -2214 Dec 30 j 09:15 1°る40'51 minimum elong -2208 Jul 09 i 01:35 27° **I**I 05'22 0°37'37 max. Earth dist. -2208 Jul 08 j 19:59 27°**Ⅲ**02'18 6.36958 AU conjunction -2213 Jan 12 j 09:19 4°る47'18 0°-46'-7 morning rise -2208 Jul 22 j 08:30 29°**Д**59'35 -2213 Jan 12 j 09:16 4°**ਰ**47'16 0°46'11 -2208 Jul 22 j 09:16 minimum elong 0ಂತಾ max. Earth dist. -2213 Jan 12 j 21:53 4°**る**54'50 6.01666 AU retrograde -2208 Nov 20 j 05:56 17°506'56 -2207 Jan 19 j 06:15 12°511'45 1°18'41 morning rise -2213 Jan 25 j 12:18 7°**る**55'26 opposition retrograde -2213 Jun 06 j 08:54 28°る12'39 min. Earth dist. -2207 Jan 19 j 18:00 12°507'55 4.39996 AU -2213 Aug 05 j 15:43 23°ਰ10'46 -1°-34'-50 opposition direct -2207 Mar 22 j 08:11 7°**©**08'21 min. Earth dist. -2213 Aug 04 j 21:31 23°중16'50 3.99698 AU evening set -2207 Jul 27 j 18:15 24°556'12 -2213 Oct 02 j 23:20 18°정17'09 direct -2212 Jan 02 j 03:54 conjunction -2207 Aug 09 j 19:05 27°\$46'25 1°07'16 0°≈ -2212 Feb 04 j 17:18 -2207 Aug 09 j 19:02 27°546'23 evening set 7°**≈**41'48 minimum elong 1°07'18 max. Earth dist. -2207 Aug 08 j 13:33 27°530'18 6.41436 AU conjunction -2212 Feb 18 j 00:53 10°≈52'29 -1°-13'-35 -2207 Aug 20 j 00:13 0 $^{\circ}\Omega$ minimum elong -2212 Feb 18 j 00:51 10°≈52'28 1°13'37 morning rise -2207 Aug 22 j 16:50 0°**£**35′04 max. Earth dist. -2212 Feb 19 j 15:39 11°≈15'39 5.99469 AU -2207 Nov 10 j 06:59 15°**Ω** morning rise -2212 Mar 02 j 11:36 14°≈04'50 retrograde -2207 Dec 20 j 20:27 17° **Ω**29'15 -2212 Mar 06 j 08:57 15°≈ -2206 Jan 30 j 19:06 15°RΩ -2212 May 19 j 00:30 0°**米** -2206 Feb 19 j 06:28 12° **Ω** 36'41 1°49'17 opposition

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2206 in astronomical counting style is the year 2207 BCE in historical counting style. min. Earth dist. -2206 Feb 20 j 08:16 $12^{\circ}\Omega$ 28'23 4.41422 AU evening set -2200 Feb 09 j 22:10 12°≈54'28 -2200 Feb 18 j 16:40 15°≈ -2206 Apr 22 j 22:45 direct 7°**Ω**34'20 -2206 Jul 07 j 13:17 15° Ω -2200 Feb 23 j 06:46 16°≈05'49 -1°-15'-12 -2206 Aug 27 j 21:06 25° Ω 20'17 evening set conjunction -2206 Sep 07 j 20:37 27° Ω 44'58 max. Earth dist. -2200 Feb 23 j 06:45 6.39586 AU minimum elong 16°**≈**05'48 1°15'15 -2200 Feb 24 j 23:16 max. Earth dist. 16°**≈**30′01 5.99138 AU -2200 Mar 07 j 18:49 19°≈18'50 conjunction -2206 Sep 09 j 14:40 28°**\O**08'08 1°18'07 morning rise -2206 Sep 09 j 14:40 28°**Ω**08'08 1°18'09 -2200 Apr 24 j 19:59 minimum elong 0°**∀** -2200 Jul 17 j 17:40 -2206 Sep 18 j 01:41 0° m retrograde 9°**)**41'22 morning rise -2206 Sep 22 j 05:25 0° m 54'45 min. Earth dist. -2200 Sep 14 j 04:39 4°**)**€47'08 4.01619 AU retrograde -2205 Jan 21 j 04:53 18° Mp 02'41 opposition -2200 Sep 15 j 12:08 4°**)** ₹36'25 -1°-54'-32 -2200 Oct 29 j 16:03 opposition -2205 Mar 23 j 00:30 13° **m** 11'07 1°50'03 30°R≈ -2200 Nov 12 j 10:29 min. Earth dist. -2205 Mar 24 j 08:56 13° Mp 00'47 4.36484 AU direct 29°≈40'11 direct -2205 May 24 j 14:27 8° m 10'56 -2200 Nov 26 j 07:21 0°**)**€ evening set -2205 Sep 27 j 18:49 26° Mp 07'56 evening set -2199 Mar 18 j 04:42 19°**₩**00'00 max. Earth dist. -2205 Oct 08 j 11:09 28° m 31'41 6.31875 AU conjunction -2199 Mar 31 j 20:19 22°**米** 11′29 -1°-10'-22 conjunction -2205 Oct 10 j 08:37 28° m 57'16 1°07'07 minimum elong -2199 Mar 31 j 20:22 22°**光** 11'31 1°10'23 minimum elong -2205 Oct 10 j 08:39 28° m 57'17 1°07'07 max. Earth dist. -2199 Apr 02 j 23:05 22° \(\frac{1}{41}\)13 6.05549 AU -2205 Oct 15 j 00:04 0∘**ত** morning rise -2199 Apr 14 j 14:02 25° + 23'54 morning rise -2205 Oct 22 j 21:09 1°**£**46'06 -2199 May 04 j 18:51 $0^{\circ}\Upsilon$ retrograde -2204 Feb 23 i 04:43 19°**2**32'24 retrograde -2199 Aug 22 i 03:45 15°**Y**03′10 opposition -2204 Apr 24 i 04:22 14°**£**40'02 1°18'58 min. Earth dist. -2199 Oct 19 i 09:54 10°**Y**08'18 4.10895 AU min. Earth dist. -2204 Apr 25 i 11:13 14°**£**30'12 4.26417 AU opposition -2199 Oct 20 i 15:15 9°**Υ**58'17 -1°-25'-36 -2204 Jun 25 j 00:51 9°**₽**42'32 direct -2199 Dec 18 j 06:20 4°**Υ**58'49 direct evening set -2204 Oct 28 j 08:04 28° **2**01'52 -2198 Apr 23 j 20:04 23°**Y**53'21 evening set -2204 Nov 05 j 21:23 o°m. -2198 May 07 j 14:45 27°**Y**01'13 0°-40'-6 conjunction -2204 Nov 09 j 22:42 0°ML56'13 0°35'45 -2198 May 07 j 14:49 27°**Υ**'01'15 0°40'06 minimum elong conjunction 6.16896 AU -2204 Nov 09 j 22:45 -2198 May 09 j 07:08 27°**Y**24'11 minimum elong 0°M-56'14 0°35'43 max. Earth dist. -2204 Nov 08 j 12:06 -2198 May 20 j 17:51 max. Earth dist. 0° ጤ 36'13 6.20326 AU 0° 8 -2204 Nov 22 j 13:25 -2198 May 21 j 09:44 0°808'57 3°M50'52 morning rise morning rise -2198 Aug 05 j 17:35 15°**8** -2203 Jan 14 j 03:55 15°M ⋅ -2203 Mar 29 j 03:03 22°M33'38 -2198 Sep 24 j 08:58 18°**8**45'02 retrograde retrograde -2203 May 29 j 02:23 17° M 38'51 0°21'14 -2198 Nov 13 j 06:38 15°R₩ opposition -2203 May 29 j 19:59 17° M 33'12 4.14114 AU -2198 Nov 22 j 21:32 13°**8**42'46 0°-28'-44 min. Earth dist. opposition -2198 Nov 22 j 02:15 13°**8**49'17 4.23086 AU -2203 Jun 19 j 20:29 15°RM min. Earth dist. direct -2203 Jul 28 j 15:19 12°M-44'06 direct -2197 Jan 21 j 16:50 8°**8**40'41 -2203 Sep 04 j 20:50 15°M -2197 Mar 29 j 19:01 15°**8** desc. node -2203 Oct 01 j 01:50 18°ML47'51 asc. node -2197 May 20 j 17:35 25°**8**16'48 -2203 Nov 23 j 18:36 0°**∡**¹ -2197 May 28 j 22:51 27°**8**04'50 evening set -2203 Nov 30 j 08:31 evening set 1°**∡**'32'18 -2197 Jun 11 j 14:48 0°П06'22 0°02'27 conjunction -2203 Dec 13 j 03:14 4°**∡**33'29 0°-8'-30 -2197 Jun 11 j 14:47 0°**Ⅱ**06′22 0°02'29 conjunction minimum elong -2203 Dec 13 j 03:13 4°**∡**³33'28 -2197 Jun 11 j 06:30 0°**Ⅱ**01'48 minimum elong 0°08'34 behind sun begin behind sun begin -2203 Dec 12 j 20:10 4°**х** 29′19 behind sun end -2197 Jun 11 i 23:05 0°**Ⅱ**10'57 behind sun end -2203 Dec 13 i 10:16 4°**х** 37'38 -2197 Jun 11 i 03:17 $\Pi^{\circ}0$ max. Earth dist. -2203 Dec 12 j 14:28 4°**₹**¹25'56 6.08418 AU max. Earth dist. -2197 Jun 12 i 07:27 0°**Ⅱ**15'37 6.29034 AU morning rise -2203 Dec 25 i 23:49 7°**∡**³35'51 morning rise -2197 Jun 25 i 05:00 3°**Ⅱ**06'51 retrograde -2202 May 04 j 22:46 27° ₹ 18'55 retrograde -2197 Oct 25 j 23:24 20° II 45'53 -2202 Jul 04 j 14:29 22° ₹720'28 0°-47'-8 opposition -2197 Dec 24 j 16:00 15° **II** 47'30 0°34'02 opposition min. Earth dist. -2202 Jul 04 j 12:59 22°**尽** 20'58 4.03603 AU min. Earth dist. -2197 Dec 24 j 13:42 15° **II** 48'16 4.34119 AU direct -2202 Sep 01 j 18:43 17° ₹27'14 direct -2196 Feb 23 j 20:04 10°**Д**44'07 -2202 Dec 06 j 07:25 0°ਰ evening set -2196 Jun 30 j 07:34 28° **Ⅲ**43'31 -2201 Jan 04 j 07:04 6°**ප**42'11 -2196 Jul 06 j 04:13 0ಂತಾ evening set -2196 Jul 13 j 16:07 conjunction -2201 Jan 17 j 08:21 9°る49'48 0°-51'-10 conjunction 1°938'14 0°42'44 -2201 Jan 17 j 08:18 9°**⋜**49'46 0°51'14 -2196 Jul 13 j 16:05 1°938'13 0°42'47 minimum elong minimum elong -2201 Jan 18 j 01:20 9°**る**59'59 -2196 Jul 13 j 06:25 max. Earth dist. 6.00271 AU max. Earth dist. 1°**©**32'56 6.38122 AU -2201 Jan 30 j 12:31 12°る59'04 -2196 Jul 26 j 21:41 morning rise morning rise 4°931'25 -2196 Nov 24 j 13:29 21°534'41 -2201 Apr 25 j 10:42 retrograde retrograde -2201 Jun 11 j 16:20 3°≈22'34 -2195 Jan 23 j 15:31 16°939'55 1°24'38 opposition -2201 Jul 29 j 04:02 30°R궁 min. Earth dist. -2195 Jan 24 j 05:23 16°**©**35'24 4.40742 AU opposition -2201 Aug 10 j 19:47 28°る20'16 -1°-40'-11 direct -2195 Mar 26 j 19:44 11°536'33 min. Earth dist. -2201 Aug 09 j 23:24 28°₹27'05 3.98806 AU evening set -2195 Aug 01 j 05:12 29°522'54 -2201 Oct 07 j 23:41 23°**る**26'31 -2195 Aug 04 j 01:41 $0^{\circ}\Omega$ direct -2201 Dec 12 j 08:57 max. Earth dist. -2195 Aug 12 j 21:46 1°**Ω**55'30 6.41695 AU

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2195 in astronomical counting style is the year 2196 BCE in historical counting style. -2195 Aug 14 i 04:54 2°Ω12'30 1°10'03 -2189 Mar 29 j 20:53 conjunction 0°≈ -2195 Aug 14 j 04:51 2°**Ω**12'29 1°10'06 -2189 Jun 16 j 23:50 8°≈42'02 minimum elong retrograde 3°≈47'03 3.98831 AU -2195 Aug 27 j 01:19 5°**Ω**00'33 min. Earth dist. -2189 Aug 15 j 03:33 morning rise -2195 Oct 15 j 18:04 15°**Ω** -2189 Aug 16 j 02:59 opposition 3°≈39'10 -1°-44'-56 -2195 Dec 25 j 05:20 $21^{\circ}\Omega$ 54'41 -2189 Sep 15 j 23:20 retrograde 30°Ŗる -2194 Feb 23 j 16:47 17°**Ω**02'25 1°51'16 -2189 Oct 13 j 04:42 28°る45'09 opposition direct -2189 Nov 09 j 09:21 min. Earth dist. -2194 Feb 24 j 20:10 16° **Ω** 53'38 4.41187 AU 0°≈ -2194 Mar 12 j 01:53 15°ŖΩ -2188 Feb 01 j 13:22 15°≈ 12°**Ω**00′20 direct -2194 Apr 27 j 09:43 evening set -2188 Feb 15 j 05:38 18°≈12'42 -2194 Jun 12 j 13:35 15°**Ω** evening set -2194 Sep 01 j 05:52 29°**Ω**46′52 conjunction -2188 Feb 28 j 15:26 21°≈24'12 -1°-16'-19 -2188 Feb 28 j 15:25 21°≈24'12 -2194 Sep 02 j 05:51 0° m minimum elong 1°16'22 -2194 Sep 12 j 01:43 -2188 Mar 01 j 12:06 21°≈50'51 max. Earth dist. 2° Mp 09'53 6.38852 AU max. Earth dist. 5.99814 AU morning rise -2188 Mar 13 j 04:14 24°≈37'16 conjunction -2194 Sep 13 j 22:32 2° M 34'38 1°17'54 -2188 Apr 05 j 10:37 0°**)**€ minimum elong -2194 Sep 13 j 22:32 2°m/34'39 1°17'54 retrograde -2188 Jul 22 j 22:04 14°**)** 54'50 5° TQ 21'20 morning rise -2194 Sep 26 j 12:50 min. Earth dist. -2188 Sep 19 j 07:23 10°**)** 00′21 4.02868 AU retrograde -2193 Jan 25 j 19:05 22° M 33'16 opposition -2188 Sep 20 j 14:42 9°**)** 49′40 -1°-52'-47 opposition -2193 Mar 27 j 14:43 17° mp 41'40 1°47'32 direct -2188 Nov 17 j 15:31 4° **)** 52'58 min. Earth dist. -2193 Mar 29 j 00:05 17° m 31'03 4.35294 AU evening set -2187 Mar 23 j 10:43 24° **H** 08'45 direct -2193 May 29 j 03:16 12° mp 41'46 -2193 Sep 29 i 02:10 0∘**⊽** conjunction -2187 Apr 06 j 02:57 27°**升** 19'46 -1°-7'-21 evening set -2193 Oct 02 i 04:33 0°**£**41'32 minimum elong -2187 Apr 06 i 03:00 27° ¥ 19'47 1°07'22 max. Earth dist. -2193 Oct 12 j 22:16 3°**ഫ**06'31 6.30333 AU max. Earth dist. -2187 Apr 08 j 05:27 27° \(\frac{1}{49}\) 49'11 6.07236 AU -2187 Apr 17 j 14:35 $0^{\circ}\Upsilon$ -2193 Oct 14 j 18:24 3°**₽**31'26 1°03'47 -2187 Apr 19 j 21:12 0°Υ31'35 conjunction morning rise -2193 Oct 14 j 18:26 -2187 Aug 26 j 21:51 20°**Υ**01'11 3°£31'28 1°03'47 retrograde minimum elong -2193 Oct 27 j 06:51 -2187 Oct 24 j 05:08 15° Υ 06'27 4.12831 AU 6°**£**20'55 min. Earth dist. morning rise -2192 Feb 27 j 23:53 24°**£**14'32 -2187 Oct 25 j 10:20 14°**Υ**′56'30 -1°-18'-42 retrograde opposition 9°**Y**56'35 -2192 Apr 29 j 00:16 19°**£**21'57 1°12'08 -2187 Dec 23 j 04:28 opposition direct -2192 Apr 30 j 05:35 19°**2**12'36 4.24619 AU -2186 Apr 28 j 20:43 28° γ 45'42 min. Earth dist. evening set -2192 Jun 29 j 16:04 14°**2**24'53 -2186 May 04 j 08:25 0° 8 direct -2192 Oct 20 j 13:56 0°M -2192 Nov 01 j 22:17 -2186 May 12 j 15:17 1°**8**52'37 0°-34'-30 evening set 2°M48'34 conjunction -2186 May 12 j 15:19 max. Earth dist. -2192 Nov 13 j 04:14 5°M24'43 6.18435 AU minimum elong 1°**8**52'39 0°34'29 -2186 May 14 j 03:50 2°**8**13'20 max. Earth dist. 6.18920 AU -2192 Nov 14 j 13:13 -2186 May 26 j 09:51 conjunction 5°M43'51 0°29'58 morning rise 4°**8**59'17 minimum elong -2192 Nov 14 j 13:15 5°**M**43′53 0°29'55 -2186 Jul 12 j 23:55 15°8 -2192 Nov 27 j 04:42 8°M39'38 retrograde morning rise -2192 Dec 25 j 12:26 15°M opposition -2186 Nov 27 j 09:56 18°\(23'53\) 0°-19'-48 retrograde -2191 Apr 03 j 06:50 27°M231'41 min. Earth dist. -2186 Nov 26 j 17:57 18°**8**29'17 4.24988 AU -2191 Jun 03 j 05:01 22°M36'26 0°11'36 -2186 Dec 25 j 05:46 15°R8 opposition min. Earth dist. -2191 Jun 03 j 20:30 22°M31'27 4.12264 AU -2185 Jan 26 j 11:02 13°**8**21'30 direct -2191 Aug 02 j 13:40 17°M41'59 -2185 Feb 28 j 01:48 15°8 direct -2191 Aug 09 j 21:09 17°ML47'12 -2185 Mar 30 j 13:54 18°859'57 desc. node asc. node -2191 Nov 06 i 09:03 0°×7 -2185 May 25 i 23:53 $\Pi^{\circ}0$ evening set -2191 Dec 05 i 05:12 6°**∡**34'56 evening set -2185 Jun 02 j 16:52 1°**Ⅱ**41′03 -2185 Jun 16 j 08:04 4°**II**41'35 0°08'30 conjunction -2191 Dec 18 i 00:53 9°**∡**37'13 0°-15'-5 conjunction minimum elong -2191 Dec 18 i 00:51 9°**х** 37'12 0°15'09 -2185 Jun 16 i 08:02 4°**Ⅱ**41'34 0°08'33 minimum elong behind sun begin -2191 Dec 17 j 21:50 9°×35'25 -2185 Jun 16 j 00:52 4°**Ⅲ**37'37 behind sun begin -2191 Dec 18 j 03:53 9°×39'00 behind sun end -2185 Jun 16 j 15:13 4°**Ⅱ**45'31 behind sun end max. Earth dist. -2191 Dec 17 j 16:56 9°**x** 32'31 6.06808 AU max. Earth dist. -2185 Jun 16 j 21:09 4°**Ⅱ**48'48 6.30668 AU -2191 Dec 30 j 22:25 12°**√** 40'45 morning rise morning rise -2185 Jun 29 j 21:08 7°**Ⅱ**40'56 -2190 Mar 30 j 12:15 0°궁 retrograde -2185 Oct 30 j 05:24 25°**Ⅱ**13'17 retrograde -2190 May 10 j 08:02 2°**る**31'45 opposition -2185 Dec 29 j 00:06 20°**Ⅱ**15'27 0°42'09 -2190 Jun 20 j 08:29 30°₽**√** min. Earth dist. -2185 Dec 28 j 23:44 20°**Ⅱ**15'35 4.35377 AU -2190 Jul 09 j 21:46 27°**尽** 32'48 0°-56'-19 -2184 Feb 28 j 06:56 15° **I**I11'58 opposition direct -2190 Jul 09 j 17:11 27°**х** 34'19 4.02430 AU -2184 Jun 20 j 02:41 min. Earth dist. 0ಂತಾ

-2184 Jul 04 j 20:01

-2184 Jul 18 j 03:18

-2184 Jul 18 j 03:15

-2184 Jul 17 j 13:20

-2184 Jul 31 j 07:36

-2184 Nov 28 j 21:05 25°556'05

-2183 Jan 27 j 23:09 21°501'49 1°29'58

3°**©**08'57

6°902'52

6°902'50

5°955'14

8°955'12

0°47'30

0°47'33

6.38904 AU

evening set

conjunction

minimum elong

max. Earth dist.

morning rise

retrograde

opposition

-2190 Sep 06 j 21:28 22°**尽** 39'42

-2189 Jan 09 j 10:57 11°**궁**57'45

-2189 Jan 22 j 13:01 15°**る**06'01

-2189 Jan 23 j 09:12 15°**る**18'08

-2189 Feb 04 j 18:29 18°る16'06

0°ಕ

0°56'09

5.99641 AU

-2189 Jan 22 j 13:04 15°**⋜**06'03 0°-56'-6

-2190 Nov 15 j 23:20

direct

evening set

conjunction

minimum elong

max. Earth dist.

morning rise

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2183 in astronomical counting style is the year 2184 BCE in historical counting style. min. Earth dist. -2183 Jan 28 j 16:10 20°556'17 4.41014 AU conjunction -2177 Jan 27 j 17:52 20°₹21'47 -1°00'-34 minimum elong -2183 Mar 31 j 06:31 15°558'35 -2177 Jan 27 j 17:49 20°る21'45 1°00'38 direct 5.99464 AU -2183 Jul 19 j 00:06 -2177 Jan 28 j 19:27 20°る37'08 $0^{\circ}\Omega$ max. Earth dist. -2177 Feb 10 j 00:08 23°♂32'18 -2183 Aug 05 j 14:17 3°**Ω**44'56 evening set morning rise max. Earth dist. -2183 Aug 17 j 02:17 -2177 Mar 09 j 22:10 6°**Ω**15'17 6.41412 AU 0°≈ 13°**≈**58'44 -2177 Jun 22 j 07:40 retrograde min. Earth dist. conjunction -2183 Aug 18 j 12:53 6°**Ω**34'12 1°12'24 -2177 Aug 20 j 08:20 9°**≈**03'39 3.99231 AU -2183 Aug 18 j 12:51 minimum elong 6°**£**34'11 1°12'27 opposition -2177 Aug 21 j 08:45 8°≈55'25 -1°-48'-46 4°≈01'09 morning rise -2183 Aug 31 j 08:21 9°**£**21′58 direct -2177 Oct 18 j 09:55 -2183 Sep 27 j 00:35 15°**Ω** -2176 Jan 14 j 05:37 15°**≈** retrograde -2183 Dec 29 j 14:31 26°**Ω**18′03 evening set -2176 Feb 20 j 11:35 23°≈27'09 -2182 Feb 28 j 02:52 21° Ω 25'59 opposition 1°52'39 min. Earth dist. -2182 Mar 01 j 07:24 21° Ω 16'50 4.40404 AU conjunction -2176 Mar 04 j 22:13 26°≈38'38 -1°-16'-50 direct -2182 May 01 j 19:10 16°**Ω**24'10 minimum elong -2176 Mar 04 j 22:13 26°≈38'38 1°16'52 -2182 Aug 17 j 00:28 0°m max. Earth dist. -2176 Mar 06 j 20:23 27°≈06'04 6.00719 AU evening set -2182 Sep 05 j 14:36 4° m 13'05 morning rise -2176 Mar 18 j 12:02 29°≈51'39 max. Earth dist. -2182 Sep 16 j 10:21 6°₩36'29 6.37630 AU -2176 Mar 19 j 02:13 0°**)**€ retrograde -2176 Jul 27 j 22:17 20°**₭**03'27 conjunction -2182 Sep 18 j 06:45 7° Mp 01'06 1°17'12 min. Earth dist. -2176 Sep 24 j 06:24 15°\mathcal{H}09'15 4.04201 AU minimum elong -2182 Sep 18 j 06:45 7° Mp 01'06 1°17'13 opposition -2176 Sep 25 j 14:44 14° **¥** 58'14 -1°-50'-14 morning rise -2182 Sep 30 j 20:25 9° m 48'04 direct -2176 Nov 22 j 16:26 10°\ 01'06 retrograde -2181 Jan 30 i 09:57 27° m 05'40 evening set -2175 Mar 28 i 14:51 29° \(\mathbf{H}\) 13'02 opposition -2181 Apr 01 i 06:06 22° m 14'07 1°44'20 -2175 Apr 01 j 00:08 min. Earth dist. -2181 Apr 02 i 15:29 22° m 03'29 4.33716 AU direct -2181 Jun 02 j 16:03 17° m 14'42 conjunction -2175 Apr 11 i 07:38 2°Y23'33 -1°-3'-54 -2181 Sep 12 j 09:44 -2175 Apr 11 i 07:41 2°Y23'35 1°03'55 0∘ଫ minimum elong -2181 Oct 06 j 15:42 5°**£**18'22 max. Earth dist. -2175 Apr 13 j 08:13 2°Y51'45 evening set 6.08876 AU max. Earth dist. -2181 Oct 17 j 09:11 7°**£**43'55 -2175 Apr 25 j 02:13 5°**Ƴ**34'45 6.28528 AU morning rise -2175 Aug 31 j 15:58 24°**Y**55'23 retrograde -2175 Oct 29 j 00:48 20°**Y**00'06 4.14592 AU -2181 Oct 19 j 05:23 8°**ഫ**09'00 1°00'00 conjunction min. Earth dist. -2175 Oct 30 j 03:35 19°**Υ**50'58 -1°-11'-25 minimum elong -2181 Oct 19 j 05:26 1°00'00 8°**₽**09'01 opposition -2181 Oct 31 j 18:13 10°**♀**59'21 -2175 Dec 28 j 02:27 14°**Υ**50'37 direct morning rise -2180 Mar 03 j 22:44 29°**♀**01'24 -2174 Apr 17 j 15:13 0°B retrograde -2180 May 03 j 22:36 24°**♀**08'31 1°04'42 -2174 May 03 j 19:50 3°**8**35'13 opposition evening set -2180 May 05 j 02:05 23°**⊆**59'44 4.22704 AU min. Earth dist. -2180 Jul 04 j 10:19 19°**2**11'53 -2174 May 17 j 14:23 6°**8**41'21 0°-28'-44 direct conjunction -2180 Oct 02 j 21:15 0°M -2174 May 17 j 14:26 minimum elong 6°**8**41'23 0°28'44 evening set -2180 Nov 06 j 14:10 7°**M**40'07 max. Earth dist. -2174 May 19 j 00:59 7°**8**00'52 6.20681 AU max. Earth dist. -2180 Nov 18 j 01:21 10°M 19'53 6.16601 AU morning rise -2174 May 31 j 08:26 9°**8**47'03 -2174 Jun 24 j 05:12 15°**8** conjunction -2180 Nov 19 j 05:46 10°M236'26 0°23'53 retrograde -2174 Oct 03 j 07:58 28°**8**04'55 -2180 Nov 19 j 05:48 10°M36'27 -2174 Dec 01 j 21:32 23°803'41 0°-10'-51 minimum elong 0°23'50 opposition -2180 Dec 01 j 21:49 13°MJ33'18 min. Earth dist. -2174 Dec 01 j 07:03 23°**8**08'33 4.26596 AU morning rise -2180 Dec 08 j 04:17 15°M direct -2173 Jan 31 j 01:48 18°**8**01'05 -2179 Feb 26 j 02:54 -2173 Feb 07 j 09:03 18°**8**06'11 0°×7 asc. node retrograde -2179 Apr 08 i 11:59 2°**х** 34′15 -2173 May 08 j 20:36 $0^{\circ}II$ -2179 May 20 i 07:56 30°RML evening set -2173 Jun 07 j 10:19 6°**Ⅱ**17'02 -2179 Jun 08 j 09:27 27°M 38'35 0°01'43 opposition -2173 Jun 21 i 00:28 9°**П**16'37 0°14'28 min. Earth dist. -2179 Jun 08 i 22:02 27° M-34'31 4.10670 AU conjunction minimum elong desc. node -2179 Jun 18 j 09:05 26° ML22'02 -2173 Jun 21 j 00:27 9°**Ⅱ**16'36 0°14'31 behind sun begin direct -2179 Aug 07 j 13:24 22° 1.44'30 -2173 Jun 20 j 21:06 9°**Ⅱ**14'46 -2179 Oct 17 j 05:59 behind sun end -2173 Jun 21 j 03:48 9°**Ⅱ**18'27 0°**√** max. Earth dist. -2179 Dec 10 i 03:38 11° ₹ 41'11 -2173 Jun 21 j 08:20 9°**Ц**20'56 6.32001 AU evening set morning rise -2173 Jul 04 j 12:37 12°**Ⅲ**14'59 conjunction -2179 Dec 22 j 23:56 14° ₹ 44'19 0°-21'-38 retrograde -2173 Nov 03 j 14:10 29°**Ⅲ**41'53 minimum elong -2179 Dec 22 j 23:54 14° ₹ 44'18 0°21'42 opposition -2172 Jan 02 j 08:52 24°**Ц**44'35 0°50'01 max. Earth dist. -2179 Dec 22 j 19:14 14° ₹ 41'31 6.05585 AU min. Earth dist. -2172 Jan 02 j 12:01 24°**I**I43'33 4.36350 AU -2178 Jan 04 j 22:37 17°**х** 48'50 direct -2172 Mar 03 j 20:34 19°**Ⅲ**41'02 morning rise -2178 Mar 02 j 01:40 0°る -2172 Jun 02 j 15:26 0ಂತಾ 7°**る**46'03 -2172 Jul 09 j 08:38 retrograde -2178 May 15 j 15:49 evening set 7°**©**36'15 2°**ප්**46'28 -1°-5'-5 opposition -2178 Jul 15 j 04:59 min. Earth dist. -2178 Jul 14 j 20:35 2°る49'14 4.01707 AU conjunction -2172 Jul 22 j 14:51 10°529'28 0°52'02 -2178 Aug 06 j 15:10 30°R ⊀ minimum elong -2172 Jul 22 j 14:48 10°**©**29'26 0°52'04 direct -2178 Sep 12 j 00:40 27° ₹ 53'21 max. Earth dist. -2172 Jul 21 j 22:15 10°9520'24 6.39434 AU -2178 Oct 17 j 23:22 0°ಕ morning rise -2172 Aug 04 j 17:46 13°**9**521'03 -2177 Jan 14 j 14:36 17° ₹ 12'57 -2172 Nov 18 j 14:34 $0^{\circ}\Omega$ evening set

-2172 Dec 03 j 03:17

retrograde

0°**Ω**20'17

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 21

Attention, astronomical year style is used: The year -2172 in astronomical counting style is the year 2173 BCE in historical counting style.							
,	-2172 Dec 17 j 16:18	-		retrograde	-2166 May 20 j 22:25		
opposition	-2171 Feb 01 j 07:40		1°34'52	opposition	-2166 Jul 20 j 09:36	7° る 53'03	-1°-13'-5
min. Earth dist.	-2171 Feb 02 j 01:51			min. Earth dist.	-2166 Jul 19 j 23:28	7° る 56'24	4.01307 AU
direct	-2171 Apr 04 j 16:03	20°523'16		direct	-2166 Sep 17 j 02:43	2° る 59'54	
	-2171 Jul 01 j 08:22	$0^{\circ}\Omega$		evening set	-2165 Jan 19 j 15:52	22° る 20'04	
evening set	-2171 Aug 10 j 00:14	8° Ω 09'56					
max. Earth dist.	-2171 Aug 21 j 09:11	10° £ 38′52	6.41049 AU	conjunction	-2165 Feb 01 j 19:56	25° පි 29'14	-1°-4'-26
				minimum elong	-2165 Feb 01 j 19:53	25° る 29'12	1°04'30
conjunction	-2171 Aug 22 j 21:43	10° Ω 58'53	1°14'22	max. Earth dist.	-2165 Feb 02 j 23:56	25° る 46'01	5.99508 AU
minimum elong	-2171 Aug 22 j 21:41	10° Ω 58'52	1°14'24	morning rise	-2165 Feb 15 j 03:21	28° ප් 40'11	
morning rise	-2171 Sep 04 j 16:11	13° Ω 46′24			-2165 Feb 20 j 18:04	0° ≈	
	-2171 Sep 10 j 08:02	15° Ω			-2165 May 06 j 04:17		
	-2171 Dec 12 j 05:07	0° m y		retrograde	-2165 Jun 27 j 09:43		
retrograde	-2170 Jan 03 j 01:38	0° Mp 44'36			-2165 Aug 19 j 06:33		
	-2170 Jan 24 j 21:09	30°R€		min. Earth dist.	-2165 Aug 25 j 07:52		3.99748 AU
opposition	-2170 Mar 04 j 14:31	25° Ω 52'44		opposition	-2165 Aug 26 j 10:32		-1°-51'-37
min. Earth dist.	-2170 Mar 05 j 20:44		4.39626 AU	direct	-2165 Oct 23 j 10:06	9°≈07'44	
direct	-2170 May 06 j 07:29	20° Ω 51'15		. ,	-2165 Dec 24 j 00:32		
. ,	-2170 Jul 30 j 02:06	0°M)		evening set	-2164 Feb 25 j 14:31		
evening set	-2170 Sep 09 j 23:57	8° Mp 42'04	C 2 C 4 O 7 A 1 1		-2164 Mar 02 j 19:11	0°) €	
max. Earth dist.	-2170 Sep 20 j 17:52	11-111/04-55	6.36497 AU	:	2164 Mar. 10:02-05	10 W 42140	10 171 44
agniumation	2170 Can 22 : 15:20	110 m, 20117	1016104	conjunction minimum elong	-2164 Mar 10 j 02:05 -2164 Mar 10 j 02:06	1°)(43'40 1°)(43'40	-1°-16'-44 1°16'46
conjunction minimum elong	-2170 Sep 22 j 15:30 -2170 Sep 22 j 15:31	11°M ₂ 30'17		max. Earth dist.	-2164 Mar 10 j 02:06 -2164 Mar 12 j 00:37	2°)(11'14	6.01638 AU
morning rise	-2170 Sep 22 j 13.31 -2170 Oct 05 j 04:54	14° Mp 17'35	1 10 03	morning rise	-2164 Mar 23 j 16:41	4° H 56'35	0.01038 AU
morning risc	-2169 Jan 01 j 20:46	0° ⊽		retrograde	-2164 Aug 01 j 20:03	25° ∺ 02'48	
retrograde	-2169 Feb 04 j 01:31	۱° ユ 40'33		min. Earth dist.	-2164 Sep 29 j 04:02	20°\(\)\(\)\(\)\(\)\(\)\(\)	4.05411 AU
retrograde	-2169 Mar 09 j 12:21	30°R, M)		opposition	-2164 Sep 30 j 11:14	19°) 57'34	-1°-46'-57
opposition	-2169 Apr 05 j 22:46	26° m/48'52	1°40'31	direct	-2164 Nov 27 j 15:49	14°) 59'58	1 10 37
min. Earth dist.	-2169 Apr 07 j 07:01		4.32318 AU		-2163 Mar 15 j 08:55	0°Υ	
direct	-2169 Jun 07 j 05:58	21° m)49'51		evening set	-2163 Apr 02 j 15:49	4° Υ '08'49	
	-2169 Aug 24 j 17:32	0∘ <u>⊽</u>		<u>8</u>	r , j		
evening set	-2169 Oct 11 j 03:11	9° ≙ 56'30		conjunction	-2163 Apr 16 j 09:18	7° Y 19'00	-1°00'-6
max. Earth dist.	-	12° ≏ 24'28	6.27009 AU	minimum elong	-2163 Apr 16 j 09:22	7° Y ′19′02	1°00'06
	v			max. Earth dist.	-2163 Apr 18 j 09:34	7° Ƴ 46'54	6.10287 AU
conjunction	-2169 Oct 23 j 16:59	12° ≏ 47'46	0°55'52	morning rise	-2163 Apr 30 j 04:06	10° Y 29'41	
minimum elong	-2169 Oct 23 j 17:02	12° ₽ 47'47	0°55'51	retrograde	-2163 Sep 05 j 06:51	29° Y ′42'26	
morning rise	-2169 Nov 05 j 05:53	15° ≏ 38'49		opposition	-2163 Nov 03 j 18:16	24° Y ′38′26	-1°-3'-52
	-2168 Jan 17 j 21:12	0°M₊		min. Earth dist.	-2163 Nov 02 j 16:35		4.16059 AU
retrograde	-2168 Mar 08 j 20:52	3° M 48′06		direct	-2162 Jan 01 j 19:38		
	-2168 Apr 30 j 07:21	30° ₹			-2162 Mar 30 j 19:43	0°8	
opposition	-2168 May 08 j 21:00	28° £ 54'57	0°56'50	evening set	-2162 May 08 j 16:59	8° 8 19'11	
min. Earth dist.	-2168 May 09 j 22:58	28° ≏ 46'40	4.21164 AU				
direct	-2168 Jul 09 j 05:20	23° ≙ 58'47		conjunction	-2162 May 22 j 11:10		0°-22'-56
	-2168 Sep 12 j 04:32	0° M ₅		minimum elong	-2162 May 22 j 11:11	11° 8 24'37	0°22'55
evening set	-2168 Nov 11 j 05:54	12°M30'06		max. Earth dist.	-2162 May 23 j 16:52		6.22095 AU
	-2168 Nov 21 j 23:16	15°M		morning rise	-2162 Jun 05 j 04:53		
	21(0.)1 22:21 40	1.50 M 27112	0017142		-2162 Jun 07 j 11:36		
conjunction	-2168 Nov 23 j 21:49	15°M27'12	0°17'43		-2162 Aug 27 j 05:15	0°Ⅱ 20Ⅲ40121	
minimum elong	-2168 Nov 23 j 21:50	15°M27'12	0°17'41	retrograde	-2162 Oct 07 j 18:19	2° I I40'31	
max. Earth dist.	-2168 Nov 22 j 19:31	15°M11'50 18°M25'01	6.15183 AU	annagition	-2162 Nov 18 j 04:57 -2162 Dec 06 j 07:56		0°-2'-1
morning rise	-2168 Dec 06 j 14:46 -2167 Jan 29 j 19:58	18 IIC23 01 0° ⊼		opposition min. Earth dist.	-2162 Dec 06 j 07.36 -2162 Dec 05 j 20:21		4.27845 AU
ratragrada	-2167 Jan 29 j 19.38 -2167 Apr 13 j 14:43			asc. node	-2162 Dec 03 j 20.21 -2162 Dec 18 j 21:43	26° 8 00'28	4.27843 AU
retrograde desc. node	-2167 Apr 13 j 14.43 -2167 Apr 28 j 02:05	7° х ⁷ 33'16 7° х ⁷ 13'34		direct	-2162 Dec 18 j 21.43 -2161 Feb 04 j 16:53		
opposition	-2167 Jun 13 j 12:26	2°×7'37'03	0°-8'00	direct	-2161 Apr 19 j 12:32	0°II	
min. Earth dist.	-2167 Jun 13 j 21:18	2°×734'11	4.09486 AU	evening set	-2161 Jun 12 j 02:44		
Larui dist.	-2167 Jul 04 j 20:47	30°RM	07 100 710	Croming Sot	21013411 12 1 02.44	10 110073	
direct	-2167 Aug 12 j 11:34	27°M43'11		conjunction	-2161 Jun 25 j 16:11	13° ∏ 49'34	0°20'16
	-2167 Sep 19 j 11:49	0° x ⁷		minimum elong	-2161 Jun 25 j 16:10		0°20'19
evening set	-2167 Dec 15 j 00:18			max. Earth dist.	-2161 Jun 25 j 21:55		6.33014 AU
				morning rise	-2161 Jul 09 j 03:04		
conjunction	-2167 Dec 27 j 21:32	19° ∡ ¹46'04	0°-27'-52	<i>5</i> - <i>r</i>	-2161 Sep 15 j 23:42	0°5	
minimum elong	-2167 Dec 27 j 21:30	19° ∡ ′46′03	0°27'56	retrograde	-2161 Nov 07 j 20:52	4°509'40	
max. Earth dist.	-2167 Dec 27 j 22:23	19° ∡ ¹46'35	6.04748 AU		-2161 Dec 31 j 17:46	30° Ŗ Ⅱ	
morning rise	-2166 Jan 09 j 21:00	22° ∡ 751′21		opposition	-2160 Jan 06 j 17:15		0°57'32
	-2166 Feb 10 j 02:22	0°ರ		min. Earth dist.	-2160 Jan 06 j 21:41	29° Ⅱ 11′27	4.37081 AU

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2160 in astronomical counting style is the year 2161 BCE in historical counting style. direct -2160 Mar 08 j 07:27 24°**Ⅲ**09'26 opposition -2155 Jun 18 j 14:33 7°**∡**³34'34 0°-17'-41 -2160 May 13 j 02:10 0ಂತಾ -2155 Jun 18 j 21:58 7°**∡**³32′09 min. Earth dist. 4 08094 AU -2160 Jul 13 j 21:06 12°503'37 -2155 Aug 17 j 09:59 evening set direct 2°**∡**'40'52 -2160 Jul 26 j 05:20 14°5544'54 -2155 Dec 19 j 21:05 21° ₹ 43'22 max. Earth dist. 6.39819 AU evening set -2160 Jul 27 j 01:57 14°556'09 -2154 Jan 01 j 19:06 24° **₹** 48'05 conjunction 0°56'13 conjunction 0°-33'-55 -2160 Jul 27 j 01:54 14°556'08 -2154 Jan 01 j 19:04 24° **₹** 48'04 minimum elong 0°56'17 minimum elong 0°33'58 -2154 Jan 01 j 22:38 24°**尽** 50'12 morning rise -2160 Aug 09 j 03:48 17°547'07 max. Earth dist. 6.03610 AU -2154 Jan 14 j 19:46 27°**х** 54′20 -2160 Oct 11 j 08:02 $0^{\circ}\Omega$ morning rise -2154 Jan 23 j 17:06 retrograde -2160 Dec 07 j 12:11 4°**Ω**45'15 -2159 Feb 04 j 15:19 30°Rூ retrograde -2154 May 26 j 03:08 18°**궁**01'50 -2154 Jul 25 j 13:50 13°**⋜**01'08 opposition -2159 Feb 05 j 16:54 29°**9**51'43 1°39'12 opposition -1°-20'-37 -2154 Jul 25 j 00:25 13°る05'35 min. Earth dist. -2159 Feb 06 j 13:35 29°545'01 4.41144 AU min. Earth dist. 4.00566 AU direct -2159 Apr 09 j 04:17 24°5548'47 direct -2154 Sep 22 j 02:22 8°**る**07'52 -2159 Jun 10 j 03:36 $0^{\circ}\Omega$ evening set -2153 Jan 24 j 18:25 27°る30'15 evening set -2159 Aug 14 j 09:46 12°**Ω**35'33 -2153 Feb 04 j 04:50 -2159 Aug 25 j 10:10 15°**Ω** max. Earth dist. -2159 Aug 25 j 16:48 15°Ω03'38 6.40721 AU conjunction -2153 Feb 06 j 23:34 0°**≈**40'01 -1°-7'-51 minimum elong -2153 Feb 06 j 23:32 0°≈40'00 1°07'55 conjunction -2159 Aug 27 j 06:21 $15^{\circ}\Omega$ 24'13 $1^{\circ}15'54$ max. Earth dist. -2153 Feb 08 j 06:38 0°≈58'39 5.99210 AU minimum elong -2159 Aug 27 j 06:20 15°**Ω**24'13 1°15'55 morning rise -2153 Feb 20 j 08:02 3°≈51'33 morning rise -2159 Sep $08 \text{ i } 23:48 \quad 18^{\circ} \Omega 11'28$ -2153 Apr 11 i 12:18 15°**≈** -2159 Nov 08 i 06:39 0° m retrograde -2153 Jul 02 j 15:05 24°≈17'59 retrograde -2158 Jan 07 i 10:51 5° m 11'39 min. Earth dist. -2153 Aug 30 i 10:26 19°≈23'09 3.99927 AU -2158 Mar 09 j 02:11 0° m 19'52 1°53'30 opposition -2153 Aug 31 j 13:44 19°≈13'55 -1°-53'-40 opposition min. Earth dist. -2158 Mar 10 j 08:05 0° Mp 10'18 4.38964 AU -2153 Oct 08 j 13:31 15°R≈ -2158 Mar 11 j 16:23 30°RΩ -2153 Oct 28 j 13:29 direct 14°≈18'54 -2158 May 10 j 18:07 $25^{\circ}\Omega$ 18'40 -2153 Nov 17 j 13:00 direct 15°≈ -2158 Jul 08 j 05:58 -2152 Feb 14 j 19:56 0°)(0° m -2158 Sep 14 j 08:51 13° **m** 10'46 -2152 Mar 01 j 19:50 3°**)** 43′04 evening set evening set -2158 Sep 25 j 02:50 15° m 34'02 6.35535 AU max. Earth dist. -2152 Mar 15 j 08:34 6°**¥**54'45 -1°-16'-3 conjunction -2158 Sep 26 j 23:50 15° m 59'08 conjunction 1°14'29 -2152 Mar 15 j 08:35 6°**¥**54'45 1°16'05 minimum elong -2158 Sep 26 j 23:52 15° m 59'09 -2152 Mar 17 j 09:28 7°**∺**23'39 6.02275 AU minimum elong 1°14'30 max. Earth dist. -2158 Oct 09 j 12:50 18° Mp 46'40 -2152 Mar 28 j 23:59 10° **★** 07'43 morning rise morning rise -2158 Dec 04 j 00:35 -2152 Jul 28 j 08:05 0∘**⊽** $0^{\circ}\Upsilon$ -2157 Feb 08 j 17:03 0°Y08'58 retrograde 6°**₽**14'23 retrograde -2152 Aug 06 j 20:27 -2157 Apr 10 j 14:49 1°**≏**22'35 1°36'04 -2152 Aug 16 j 06:55 30°R ₩ opposition min. Earth dist. -2157 Apr 11 j 23:33 1°**2**12'11 4.31079 AU min. Earth dist. -2152 Oct 04 j 02:52 25° ¥ 14'25 4.06440 AU -2157 Apr 21 j 13:41 30°R M opposition -2152 Oct 05 j 10:09 25° **₭** 03'45 -1°-42'-50 direct -2157 Jun 11 j 20:58 26° M 23'55 direct -2152 Dec 02 j 15:33 20° **₭**05'44 -2157 Jul 31 j 23:20 -2151 Feb 24 j 16:35 $0^{\circ}\Upsilon$ -2157 Oct 15 j 13:34 14° 232'57 -2151 Apr 07 j 20:24 9°Υ12'06 evening set evening set max. Earth dist. -2157 Oct 26 j 10:51 17°**♀**01'40 6.25577 AU -2151 Apr 21 j 14:13 12°**Y**21'54 0°-55'-45 conjunction conjunction -2157 Oct 28 i 03:24 17° \(\Omega\) 24'49 0°51'24 minimum elong -2151 Apr 21 i 14:17 12° **Y**21'56 0° 55'45 -2151 Apr 23 j 11:47 12°γ′48'09 6.11621 AU minimum elong -2157 Oct 28 i 03:27 17° **2**24'51 0°51'22 max. Earth dist. $-2151 \text{ May } 05 \text{ j } 09:26 \quad 15^{\circ} \Upsilon 32'07$ morning rise -2157 Nov 09 i 16:43 20° **2**16'38 morning rise -2157 Dec 25 i 08:33 0°M -2151 Jul 16 i 12:59 0°8 retrograde -2156 Mar 13 j 17:05 -2151 Sep 09 j 23:52 4°836'53 8°M,33'05 retrograde -2156 May 13 j 18:15 3°ML39'30 0°48'38 -2151 Nov 05 j 04:59 30°RΥ opposition min. Earth dist. -2156 May 14 j 17:40 3°M32'00 4.19614 AU min. Earth dist. -2151 Nov 07 j 11:27 29°**Υ**41'30 4.17568 AU -2156 Jun 15 j 01:49 30°R ₽ -2151 Nov 08 j 11:45 29°**Y**33'14 0°-55'-41 opposition direct -2156 Jul 13 j 21:51 28° **△**43'38 direct -2150 Jan 06 j 17:18 24°**Y**32'13 -2156 Aug 11 j 14:20 0°M -2150 Mar 08 j 22:33 0°8 -2156 Nov 05 j 20:24 15°M evening set -2150 May 13 j 17:09 13°**8**10'01 -2156 Nov 15 j 20:25 17° ML18'19 -2150 May 21 j 22:00 15°**8** evening set -2156 Nov 28 j 12:59 20°M 16'19 0°11'27 -2150 May 27 j 11:11 16°**8**14'40 0°-16'-48 conjunction conjunction -2150 May 27 j 11:12 16°**8**14'41 minimum elong -2156 Nov 28 j 13:00 20°M 16'20 0°11'25 minimum elong 0°16'47 -2150 May 28 j 15:39 16°**8**30'38 behind sun begin -2156 Nov 28 j 07:07 20°M 12'53 max. Earth dist. 6.23716 AU behind sun end -2156 Nov 28 j 18:54 20°M 19'46 morning rise -2150 Jun 10 j 04:06 19°**8**18'35 max. Earth dist. -2156 Nov 27 j 14:50 20°M03'20 6.13655 AU -2150 Aug 01 j 01:30 Π $^{\circ}0$ morning rise -2156 Dec 11 j 06:34 23°M 15'06 retrograde -2150 Oct 12 j 06:40 7°**Ⅲ**21'36 -2155 Jan 10 j 04:51 0°**∡**¹ asc. node -2150 Oct 28 j 00:48 6°**I**57′00 desc. node -2155 Mar 08 j 00:36 9°**х** 54′08 -2150 Dec 10 j 20:52 2°**Ⅱ**21'30 0°07'01 opposition

min. Earth dist.

-2150 Dec 10 j 10:43

2°**I**I24'54 4.29456 AU

-2155 Apr 18 j 19:14 12° ₹31'18

retrograde

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 23 Attention, astronomical year style is used: The year -2150 in astronomical counting style is the year 2151 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	ne year -2150	in astronomical cou	inting style is the year	2151 BCE in historical of	counting style.	
	-2150 Dec 29 j 05:42	30°R₩		max. Earth dist.	-2144 Dec 02 j 03:54	24°M43'56	6.11886 AU
direct	-2149 Feb 09 j 10:17	27° 8 18'38					
	-2149 Mar 24 j 01:48	Π °0		conjunction	-2144 Dec 03 j 00:55	24°M56'17	0°05'22
evening set	-2149 Jun 16 j 21:01	15° Ⅱ 28′23		minimum elong	-2144 Dec 03 j 00:54	24°M56'17	0°05'18
				behind sun begin	-2144 Dec 02 j 17:09		
conjunction		18° Ⅱ 26′08		behind sun end	-2144 Dec 03 j 08:40		
minimum elong	-2149 Jun 30 j 09:11	18° Ⅱ 26′07	0°26'05	morning rise	-2144 Dec 15 j 19:26		
max. Earth dist.	-2149 Jun 30 j 10:49		6.34508 AU		-2144 Dec 24 j 16:33	0° ∡ ¹	
morning rise	-2149 Jul 13 j 19:01			desc. node	-2143 Jan 17 j 23:45	5° ₹ 24'25	
	-2149 Aug 24 j 14:01	0.22		retrograde	-2143 Apr 23 j 18:23		00.00.50
retrograde	-2149 Nov 12 j 05:15	8°539'09	1004142	opposition	-2143 Jun 23 j 13:12		0°-26'-58
opposition	-2148 Jan 11 j 03:02		1°04'42	min. Earth dist.	-2143 Jun 23 j 17:44		4.06364 AU
min. Earth dist.	-2148 Jan 11 j 09:47	3°540'39	4.38380 AU	direct	-2143 Aug 22 j 02:19	7°× 7 30'50	
direct	-2148 Feb 12 j 02:15 -2148 Mar 12 j 21:53	30°RⅡ 28°Ⅱ39'23		evening set	-2143 Dec 24 j 15:49	20° X '38'42	
direct	-2148 Mai 12 j 21.35 -2148 Apr 12 j 01:36	20 п 3923		conjunction	-2142 Jan 06 j 14:51	200 7/1/132	0°-39'-32
evening set	-2148 Jul 18 j 09:14			minimum elong	-2142 Jan 06 j 14:48		0°39'35
evening set	-2140 Jul 10 j 07.14	10 3014		max. Earth dist.	-2142 Jan 06 j 21:47		6.02077 AU
conjunction	-2148 Jul 31 j 12:55	19°621'50	1°00'04	max. Earth dist.	-2142 Jan 07 j 16:40	0°중	0.02077 AC
minimum elong	-2148 Jul 31 j 12:52		1°00'07	morning rise	-2142 Jan 19 j 16:36	2° る 51'58	
max. Earth dist.	-2148 Jul 30 j 15:16		6.40828 AU	retrograde	-2142 May 31 j 08:51		
morning rise	-2148 Aug 13 j 13:12		0.10020110	opposition	-2142 Jul 30 j 16:36		-1°-27'-23
	-2148 Sep 20 j 08:27	0°N		min. Earth dist.	-2142 Jul 30 j 01:37		3.99393 AU
retrograde	-2148 Dec 11 j 17:18	9° Ω 06'48		direct	-2142 Sep 27 j 02:37		
opposition	-2147 Feb 10 j 01:05	4° Ω 13'36	1°42'51		-2141 Jan 18 j 15:49	0° ≈	
min. Earth dist.	-2147 Feb 10 j 22:32	4° Ω 06'41	4.41811 AU	evening set	-2141 Jan 29 j 20:39	2° ≈ 39'02	
	-2147 Mar 21 j 04:39	30°Rூ			·		
direct	-2147 Apr 13 j 14:11	29° © 10'53		conjunction	-2141 Feb 12 j 03:05	5° ≈ 49'41	-1°-10'-39
	-2147 May 07 j 04:42	$0^{\circ}\Omega$		minimum elong	-2141 Feb 12 j 03:03	5° ≈ 49'40	1°10'42
	-2147 Aug 09 j 19:06	15° Ω		max. Earth dist.	-2141 Feb 13 j 14:20	6° ≈ 10'49	5.98510 AU
evening set	-2147 Aug 18 j 17:21	16° Ω 55'34		morning rise	-2141 Feb 25 j 12:43	9° ≈ 02'02	
max. Earth dist.	-2147 Aug 29 j 20:29	19° Ω 21'37	6.40977 AU		-2141 Mar 23 j 06:01	15° ≈	
				retrograde	-2141 Jul 07 j 20:49	29° ≈ 30′22	
conjunction	-2147 Aug 31 j 12:41	19° Ω 43'39		min. Earth dist.	-2141 Sep 04 j 11:41		3.99811 AU
minimum elong	-2147 Aug 31 j 12:40		1°16'58	opposition	-2141 Sep 05 j 16:37		-1°-54'-45
morning rise	-2147 Sep 13 j 05:17			direct	-2141 Nov 02 j 14:27		
	-2147 Oct 19 j 03:39	0° m)			-2140 Jan 27 j 07:34	0°) (
retrograde	-2146 Jan 11 j 19:12	9° Tp 30'56	1050151	evening set	-2140 Mar 07 j 02:24	8° ¥ 55'51	
opposition	-2146 Mar 13 j 11:26	4° Mp 39'16	1°52'51		2140 M 20 : 16-01	120 V 0746	10 14! 41
min. Earth dist.	-2146 Mar 14 j 19:23	4° Mp 29′04 30° RΩ	4.38777 AU	conjunction	-2140 Mar 20 j 16:01 -2140 Mar 20 j 16:03	12° H 07'46	-1°-14'-41 1°14'43
direct	-2146 Apr 29 j 15:57 -2146 May 15 j 04:51	30 και 29° Ω 38'20		minimum elong max. Earth dist.	-2140 Mar 20 j 16.03	12 K 0/4/ 12° H 36'42	6.02734 AU
direct	-2146 May 30 j 17:14	0°m		morning rise	-2140 Mar 22 j 17.03 -2140 Apr 03 j 08:31	15° H 20'57	0.02734 AU
evening set	-2146 Sep 18 j 13:55	17° m) 30'10		morning risc	-2140 Apr 03 j 08:31 -2140 Jun 13 j 03:42	13 χ 2037	
max. Earth dist.	-2146 Sep 29 j 06:54	19° m 53'08	6.34908 AU	retrograde	-2140 Aug 11 j 19:33	5° Υ 17'26	
man. Barur dige.	21.0 Sep 25 j 00.0 .	19 1900 00	0.5 .5 00 110	min. Earth dist.	-2140 Oct 09 j 01:35	0° Υ 23'03	4.07409 AU
conjunction	-2146 Oct 01 j 04:32	20° m 18'36	1°12'30	opposition	-2140 Oct 10 j 09:21	0° Υ 12'11	-1°-37'-49
minimum elong	-2146 Oct 01 j 04:33	20° m 18'37	1°12'30	11	-2140 Oct 11 j 21:03		
morning rise	-2146 Oct 13 j 17:10	23° m 06'16		direct	-2140 Dec 07 j 16:52		
•	-2146 Nov 14 j 22:49	0∘ ত			-2139 Feb 01 j 11:50	$0^{\circ}\mathbf{Y}$	
retrograde	-2145 Feb 13 j 02:59	10° ≏ 38′01		evening set	-2139 Apr 13 j 01:35	14° Ƴ 17'34	
opposition	-2145 Apr 15 j 03:01	5° ≏ 46'05	1°31'10				
min. Earth dist.	-2145 Apr 16 j 10:51	5° Ω 35'57	4.30032 AU	conjunction	-2139 Apr 26 j 20:00	17° Y 26′58	0°-50'-55
direct	-2145 Jun 16 j 05:56	0° Ω 47'45		minimum elong	-2139 Apr 26 j 20:04	17° Y 27′00	0°50'55
evening set	-2145 Oct 19 j 20:01	18° ≏ 58'54		max. Earth dist.	-2139 Apr 28 j 17:46	17° Ƴ 53'15	6.13027 AU
max. Earth dist.	-2145 Oct 30 j 18:38	21° ≏ 28'50	6.24199 AU	morning rise	-2139 May 10 j 15:10	20° Ƴ 36'33	
					-2139 Jun 23 j 06:28	0° 8	
conjunction	-2145 Nov 01 j 09:57	21° ჲ 51'22	0°46'47	retrograde	-2139 Sep 14 j 18:31	9° 8 32'45	
minimum elong	-2145 Nov 01 j 09:59	21° ⊆ 51'23	0°46'45	min. Earth dist.	-2139 Nov 12 j 06:45	4° 8 37'12	4.19217 AU
morning rise	-2145 Nov 13 j 23:33	24° Ω 43'54		opposition	-2139 Nov 13 j 05:36	4° 8 29'27	0°-47'-3
_	-2145 Dec 07 j 15:39	0°M			-2139 Dec 24 j 16:23	30°RƳ	
retrograde	-2144 Mar 18 j 11:55	13°M07'41	0040104	direct	-2138 Jan 11 j 15:54	29° Y 28'04	
opposition	-2144 May 18 j 11:28	8°M13'50	0°40'24		-2138 Jan 29 j 18:46	0°8	
min. Earth dist.	-2144 May 19 j 10:57	8°M06'19	4.17963 AU	ovonint	-2138 May 04 j 22:51		
direct	-2144 Jul 18 j 12:00	3°M18'16		evening set	-2138 May 18 j 17:15	18-001/26	
evening set	-2144 Oct 20 j 09:31 -2144 Nov 20 j 07:42	15°M		conjunction	-2138 Jun 01 j 10:39	210205106	0°-10'-33
evening set	-2144 INOV 20 J 07.42	21 1163/13		conjunction	-2136 Juli 01 J 10.39	21 003 00	0 -10-33

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2138 in astronomical counting style is the year 2139 BCE in historical counting style. -2138 Jun 01 j 10:39 21°**8**05'07 0°10'31 -2132 May 24 j 08:29 12°ML58'39 4.16057 AU minimum elong min. Earth dist. -2138 Jun 01 j 04:15 21°**8**01'33 behind sun begin direct -2132 Jul 23 j 06:22 8°M 10'04

behind sun begin	-2138 Jun 01 j 04:15			direct	-2132 Jul 23 j 06:22	8° M 10′04	
behind sun end	-2138 Jun 01 j 17:04	21° 8 08'40			-2132 Sep 30 j 07:32	15° M ₊	
max. Earth dist.	-2138 Jun 02 j 11:34	21° 8 19'01	6.25443 AU	evening set	-2132 Nov 25 j 02:02	26°M53'54	
morning rise	-2138 Jun 15 j 02:54	24° 8 07'58		desc. node	-2132 Nov 26 j 22:07	27° M 19'44	
	-2138 Jul 12 j 08:42	$\Pi^{\circ}0$					
asc. node	-2138 Sep 05 j 13:14	9° Ⅱ 25'12		conjunction	-2132 Dec 07 j 19:52	29°M53'59	0°-1'-17
retrograde	-2138 Oct 16 j 17:32	12° Ⅱ 02'42		minimum elong	-2132 Dec 07 j 19:53	29°M53'59	0°01'21
opposition	-2138 Dec 15 j 09:25	7° Ⅱ 03'02	0°16'02	behind sun begin	-2132 Dec 07 j 11:50	29°M49'16	
min. Earth dist.	-2138 Dec 15 j 01:06	7° Ⅱ 05'49	4.31085 AU	behind sun end	-2132 Dec 08 j 03:56	29°M58'43	
direct	-2137 Feb 14 j 03:28	1° Ⅱ 59'52		max. Earth dist.	-2132 Dec 07 j 02:30	29°M43'44	6.10102 AU
evening set	-2137 Jun 21 j 14:38	20° Ⅱ 05'41			-2132 Dec 08 j 06:08	0° ∡ ¹	
				morning rise	-2132 Dec 20 j 15:21	2° ∡ ¹55′08	
conjunction	-2137 Jul 05 j 01:46	23° Ⅲ 02′23	0°31'42	retrograde	-2131 Apr 29 j 02:26	22° ∡ ¹29′26	
minimum elong	-2137 Jul 05 j 01:44	23° Ⅲ 02'21	0°31'45	opposition	-2131 Jun 28 j 19:18	17° ∡ ³31'42	0°-36'-41
max. Earth dist.	-2137 Jul 05 j 00:39	23° Ⅱ 01'46	6.35896 AU	min. Earth dist.	-2131 Jun 28 j 21:23	17° ∡ ³31′01	4.04874 AU
morning rise	-2137 Jul 18 j 10:06	25° Ⅱ 57'36		direct	-2131 Aug 27 j 04:36	12° ∡ ³38′22	
	-2137 Aug 06 j 07:22	0ංම			-2131 Dec 21 j 23:17	5°0	
retrograde	-2137 Nov 16 j 13:34	13° © 08'51		evening set	-2131 Dec 29 j 17:26	1° る 50'17	
opposition	-2136 Jan 15 j 12:37	8°913'05	1°11'35	-	-		
min. Earth dist.	-2136 Jan 15 j 21:38	8°9510'08	4.39416 AU	conjunction	-2130 Jan 11 j 17:32	4° る 57'02	0°-45'-13
direct	-2136 Mar 17 j 11:10	3° © 09'36		minimum elong	-2130 Jan 11 j 17:29	4° る 57'01	0°45'17
evening set	-2136 Jul 22 j 21:26	20°958'05		max. Earth dist.	-2130 Jan 12 j 05:42	5° る 04'20	6.01043 AU
8 - 11	,			morning rise	-2130 Jan 24 j 20:22	8° ප 05'25	
conjunction	-2136 Aug 04 j 23:42	23°9548'54	1°03'38	retrograde	-2130 Jun 05 j 19:00	28° පි 25'11	
minimum elong	-2136 Aug 04 j 23:39		1°03'41	min. Earth dist.	-2130 Aug 04 j 06:28	23° ろ 29'29	3.98988 AU
max. Earth dist.	-2136 Aug 03 j 21:30		6.41396 AU	opposition	-2130 Aug 05 j 00:23	23° る 23'30	-1°-33'-48
morning rise	-2136 Aug 17 j 22:52		0.41570710	direct	-2130 Oct 02 j 07:00	18° る 30'03	1 33 40
morning risc	-2136 Sep 02 j 16:45	0°Ω		uncet	-2130 Dec 31 j 10:37	0° ≈	
ratra ara da	-2136 Dec 16 j 02:13	13° Ω 31'46		evening set	-2130 Bec 31 j 10.37 -2129 Feb 04 j 03:35	0 ∞ 7°≈57'34	
retrograde opposition	•	8° Ω 38'51	1°46'05	evening set	-2129 Feb 04 J 03.33	/ ≈ 3/34	
min. Earth dist.	-2135 Feb 14 j 10:51	8° Ω 31'08		agniumation	2120 Eab 17 : 10:55	1190000122	10 12! 2
	-2135 Feb 15 j 10:49		4.41896 AU	conjunction	-2129 Feb 17 j 10:55		-1°-13'-3
direct	-2135 Apr 18 j 02:01	3° Ω 36'13		minimum elong	-2129 Feb 17 j 10:53	11°≈08'31	1°13'05
	-2135 Jul 23 j 21:25			max. Earth dist.	-2129 Feb 19 j 00:31	11° ≈ 31'03	5.98751 AU
evening set	-2135 Aug 23 j 02:17		C 40555 ATT	morning rise	-2129 Mar 02 j 21:43	14°≈21'14	
max. Earth dist.	-2135 Sep 03 j 04:08	23 8 (40 13	0.40333 AU		-2129 Mar 05 j 15:09	15° ≈	
	2125 0 01:20 51	240 00000	1015100		-2129 May 17 j 10:56	0° \	
conjunction	-2135 Sep 04 j 20:51		1°17'38	retrograde	-2129 Jul 13 j 01:12	4°) 47′01	
minimum elong	-2135 Sep 04 j 20:51		1°17'40	*.*	-2129 Sep 08 j 17:06	30°R≈	10.54.50
morning rise	-2135 Sep 17 j 12:28			opposition	-2129 Sep 10 j 21:07	29°≈42'20	-1°-54'-58
_	-2135 Oct 01 j 18:58	~		min. Earth dist.	-2129 Sep 09 j 14:20		4.00692 AU
retrograde	-2134 Jan 16 j 05:29			direct	-2129 Nov 07 j 18:57		
opposition	-2134 Mar 17 j 23:55	9° Mp 06'45	1°51'42		-2128 Jan 04 j 16:33	0°)	
min. Earth dist.	-2134 Mar 19 j 08:03	8° Mp 56'31	4.37883 AU	evening set	-2128 Mar 12 j 09:19	14° 犬 08'46	
direct	-2134 May 19 j 15:37	4°M) 06'08					
evening set	-2134 Sep 22 j 23:05			conjunction	-	17° ¥ 20′26	
max. Earth dist.	-2134 Oct 03 j 14:47	24° m 22'45	6.33603 AU	minimum elong	-2128 Mar 25 j 23:58	17° ∺ 20′27	1°12'50
				max. Earth dist.	-2128 Mar 28 j 03:04	17° ¥ 50′30	6.04171 AU
conjunction	-2134 Oct 05 j 13:12		1°10'04	morning rise	-2128 Apr 08 j 16:52	20° ₭ 33'09	
minimum elong	-2134 Oct 05 j 13:14		1°10'04		-2128 May 21 j 11:32	0° Υ	
morning rise	-2134 Oct 18 j 01:48			retrograde	-2128 Aug 16 j 18:36	10° Y 21′05	
	-2134 Oct 28 j 20:46	0∘ ಹ		min. Earth dist.	-2128 Oct 14 j 00:34	5° Y 26′23	4.09220 AU
retrograde	-2133 Feb 17 j 21:46			opposition	-2128 Oct 15 j 07:07	5° Ƴ 15'57	-1°-32'-11
opposition	-2133 Apr 19 j 20:55		1°25'33	direct	-2128 Dec 12 j 18:32	0° Y 17′02	
min. Earth dist.	-2133 Apr 21 j 05:14	10° ≏ 12'35	4.28380 AU	evening set	-2127 Apr 18 j 04:15	19° Ƴ 15'33	
direct	-2133 Jun 20 j 21:38	5° ≏ 24'52					
evening set	-2133 Oct 24 j 08:12	23° ≏ 39'54		conjunction	-2127 May 01 j 22:44	22° Y ′24′07	0°-45'-52
max. Earth dist.	-2133 Nov 04 j 08:49	26° ≏ 11'34	6.22350 AU	minimum elong	-2127 May 01 j 22:48	22° Y ′24'09	0°45'52
				max. Earth dist.	-2127 May 03 j 18:05	22° Y '48'52	6.15046 AU
conjunction	-2133 Nov 05 j 22:31		0°41'37	morning rise	-2127 May 15 j 17:53	25° Ƴ 32'45	
minimum elong	-2133 Nov 05 j 22:34	26° ≏ 33'17	0°41'36		-2127 Jun 04 j 18:31	9° 8	
morning rise	-2133 Nov 18 j 12:37	29° ≏ 26'48		retrograde	-2127 Sep 19 j 07:09	14° 8 18'45	
	-2133 Nov 20 j 22:45	0° M $^{\circ}$		opposition	-2127 Nov 17 j 19:46	9° 8 15'53	0°-38'-24
	-2132 Feb 07 j 15:21	15°M		min. Earth dist.	-2127 Nov 16 j 22:10	9° 8 23'12	4.21239 AU
retrograde	-2132 Mar 23 j 12:04	17°M59'30		direct	-2126 Jan 16 j 10:04	4° 8 14'09	
	-2132 May 08 j 04:01	15°RML			-2126 Apr 17 j 06:14	15° ∀	
opposition							
opposition	-2132 May 23 j 11:52		0°31'24	evening set	-2126 May 23 j 13:14	22° 8 42'24	
оррозион			0°31'24	evening set		22° 8 42'24	

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2126 in astronomical counting style is the year 2127 BCE in historical counting style. -2126 Jun 06 j 06:01 25°**8**45'01 0°-4'-27 retrograde -2120 Mar 28 j 15:50 22°M 57'40 conjunction -2126 Jun 06 j 06:00 25°**8**45'01 -2120 May 28 j 14:37 18° ML02'58 0°21'58 minimum elong 0°04'26 opposition -2126 Jun 05 j 21:51 25°840'30 min. Earth dist. -2120 May 29 j 08:50 17° M 57'06 4.14214 AU behind sun begin -2126 Jun 06 j 14:10 25°**8**49'32 -2120 Jun 23 j 05:30 15°RM behind sun end -2126 Jun 07 j 02:50 25°**8**56'36 6.27316 AU max. Earth dist. -2120 Jul 28 j 04:54 13°ML08'08 direct -2126 Jun 19 j 21:19 28°846'41 -2120 Aug 31 j 18:08 morning rise 15°M -2120 Oct 05 j 08:49 -2126 Jun 25 j 10:41 20° ML 02'00 Π °0 desc. node -2126 Jul 16 j 12:59 -2120 Nov 21 j 15:06 asc. node 4°**Ⅲ**30′10 0°**∡**¹ -2120 Nov 29 j 22:26 retrograde -2126 Oct 21 j 03:00 16°**Ⅲ**33'31 evening set 1°**х¹**56′22 opposition -2126 Dec 19 j 18:37 11°**Д**34'28 0°24'36 min. Earth dist. -2126 Dec 19 j 13:38 11°**Д**36'08 4.32647 AU conjunction -2120 Dec 12 j 17:09 4°**х** 57′29 0°-7'-56 -2120 Dec 12 j 17:09 direct -2125 Feb 18 j 17:45 6°**Ⅲ**31'13 minimum elong 4°**₰**757'28 0°08'00 -2125 Jun 26 j 04:13 24°**Д**33'37 -2120 Dec 12 j 09:56 evening set behind sun begin 4°**∡**°53'13 behind sun end -2120 Dec 13 j 00:22 5°**х**¹01'44 conjunction -2125 Jul 09 j 14:12 27°**Ⅲ**29'23 0°36'58 max. Earth dist. -2120 Dec 12 j 04:49 4°**х** 50′11 6.08556 AU morning rise minimum elong -2125 Jul 09 j 14:09 27°**Ⅲ**29'22 0°37'02 -2120 Dec 25 j 13:30 7°**х¹**59'42 max. Earth dist. -2125 Jul 09 j 08:31 27°**Ⅲ**26'17 6.37011 AU retrograde -2119 May 04 j 10:46 27°**尽** 41'35 -2125 Jul 21 j 01:50 0ಂತಾ opposition -2119 Jul 04 j 02:29 22°**х** 43'18 morning rise -2125 Jul 22 j 21:20 0°9523'40 min. Earth dist. -2119 Jul 04 j 01:10 22° ₹ 43'44 4.03788 AU retrograde -2125 Nov 20 j 19:15 17°531'08 direct -2119 Sep 01 j 07:19 17° ₹ 50'06 opposition -2124 Jan 19 j 19:48 12°535'51 1°17'52 -2119 Dec 04 j 03:43 0°₹ min. Earth dist. -2124 Jan 20 i 07:09 12°532'08 4.40041 AU evening set -2118 Jan 03 i 20:07 7°る04'26 direct -2124 Mar 21 j 20:26 7°**5**32'24 evening set -2124 Jul 27 i 06:53 25°520'05 conjunction -2118 Jan 16 i 20:59 10°♂11'48 0°-50'-34 max. Earth dist. -2124 Aug 08 j 03:43 27°554'56 6.41478 AU minimum elong -2118 Jan 16 j 20:56 10°る11'46 0°50'38 max. Earth dist. -2118 Jan 17 j 12:25 10°る21'04 6.00481 AU -2124 Aug 09 j 08:03 28°\$10'23 1°06'47 -2118 Jan 30 j 01:01 13°る20'53 conjunction morning rise -2124 Aug 09 j 08:00 28°510'22 -2118 Apr 22 j 09:34 minimum elong 1°06'48 0°≈≈ -2124 Aug 17 j 17:04 -2118 Jun 11 j 02:14 3°≈43'12 0 $^{\circ}\Omega$ retrograde -2118 Jul 31 j 08:30 30°R♂ -2124 Aug 22 j 05:56 0° **Ω**59'07 morning rise -2124 Nov 06 j 12:41 15°**Ω** min. Earth dist. -2118 Aug 09 j 10:36 28°る47'55 3.99021 AU -2124 Dec 20 j 09:50 17°**Ω**53'17 opposition -2118 Aug 10 j 07:29 28°♂40'55 -1°-39'-24 retrograde -2123 Feb 02 j 20:41 15°R**Ω** -2118 Oct 07 j 11:51 23°₹47'11 direct -2123 Feb 18 j 19:24 $13^{\circ}\Omega00'45$ $1^{\circ}48'43$ -2118 Dec 09 j 23:39 opposition 0°**≈** -2123 Feb 19 j 21:11 12° Ω 52'27 4.41449 AU -2117 Feb 09 j 09:37 13°≈14'06 min. Earth dist. evening set -2123 Apr 22 j 11:11 7°Ω58'24 -2117 Feb 16 j 19:25 15°≈ direct -2123 Jul 04 j 18:28 15°**Ω** evening set -2123 Aug 27 j 10:26 25°**Ω**44'32 conjunction -2117 Feb 22 j 18:07 16°≈25'15 -1°-14'-50 max. Earth dist. -2123 Sep 07 j 08:21 28°**Ω**08'21 6.39596 AU minimum elong -2117 Feb 22 j 18:05 16°≈25'14 1°14'53 max. Earth dist. -2117 Feb 24 j 11:55 16°≈50'13 5.99353 AU conjunction -2123 Sep 09 j 04:06 28° **Q**32'27 1°17'53 morning rise -2117 Mar 08 j 05:41 19°≈38'00 -2123 Sep 09 j 04:06 28° **Q**32'27 1°17'54 -2117 Apr 23 j 17:18 0°**)** minimum elong -2123 Sep 15 j 19:03 -2117 Jul 18 j 05:29 9°**)** 59'41 retrograde -2123 Sep 21 j 19:14 1°**m**)19'11 -2117 Sep 15 j 23:36 4°**)** 54'45 -1°-54'-16 morning rise opposition -2122 Jan 20 j 19:06 18° Mp 27'00 min. Earth dist. -2117 Sep 14 j 16:59 5°¥05'10 4.01804 AU retrograde -2122 Mar 22 j 13:11 13° m 35'27 -2117 Nov 09 i 07:10 30°R≈ opposition -2122 Mar 23 j 22:14 13° m 24'55 min. Earth dist. 4.36484 AU direct -2117 Nov 12 j 23:21 29°≈58'36 -2122 May 24 i 03:16 8° m 35'09 direct -2117 Nov 16 i 15:33 0°**∀** evening set -2122 Sep 27 j 08:35 26° m 32'37 evening set -2116 Mar 17 j 14:47 19° **H** 17'16 max. Earth dist. -2122 Oct 08 j 01:51 28° m 56'48 6.31884 AU conjunction -2116 Mar 31 i 06:03 22° ¥28'34 -1°-10'-26 -2122 Oct 09 j 22:42 29° Mp 22'02 1°07'11 minimum elong -2116 Mar 31 j 06:06 22° \(28'35 \) 1°10'27 conjunction max. Earth dist. -2122 Oct 09 j 22:44 29° m 22'03 1°07'10 -2116 Apr 02 j 08:45 22° **\(\)** 58'13 6.05673 AU minimum elong morning rise -2122 Oct 12 j 18:09 0∘**⊽** -2116 Apr 13 j 23:40 25° \(\mathbf{4}\)40'50 $0^{\circ}\Upsilon$ morning rise -2122 Oct 22 j 11:10 2°**£**10'53 -2116 May 02 j 22:08 retrograde -2121 Feb 22 j 16:58 19°**♀**56'48 retrograde -2116 Aug 21 j 13:21 15°**Y**20'01 -2116 Oct $18 \text{ j } 20:02 \quad 10^{\circ} \Upsilon 25'27 \quad 4.10962 \text{ AU}$ opposition -2121 Apr 24 j 16:45 15°**♀**04'31 1°19'18 min. Earth dist. -2116 Oct 20 j 02:28 10° **Y** 15'04 -1° -26'00 min. Earth dist. -2121 Apr 25 j 23:15 14°**£**54'49 4.26457 AU opposition 5°**Y**15'41 -2121 Jun 25 j 12:32 10°**♀**07'02 -2116 Dec 17 j 16:30 direct direct -2121 Oct 28 j 22:22 28°**♀**26'42 -2115 Apr 23 j 05:15 24° Υ 09'29 evening set evening set -2121 Nov 04 j 16:39 0°M max. Earth dist. -2121 Nov 09 j 01:13 1°ML00'24 6.20398 AU conjunction -2115 May 06 j 23:49 27° **Y**17'17 0°-40'-35 minimum elong $-2115 \text{ May } 06 \text{ j } 23:52 \quad 27^{\circ} \Upsilon 17'19$ 0°40'33 conjunction -2121 Nov 10 j 12:53 1°M21'00 0°36'07 max. Earth dist. -2115 May 08 j 15:41 27° **Y** 39'59 6.16894 AU minimum elong -2121 Nov 10 j 12:56 1°M21'02 0°36'04 -2115 May 18 j 22:26 0° 8 morning rise -2121 Nov 23 j 03:40 4°M15'38 -2115 May 20 j 18:45 0°825'00

morning rise

-2115 Aug 03 j 05:02 15°8

-2120 Jan 12 j 12:44 15°M

•	ical year style is used: The		•	/ /		, .	.50 20
retrograde	-2115 Sep 23 j 21:11	-		8	-2109 Oct 19 j 08:24	0° M	
Ü	-2115 Nov 14 j 20:36			evening set	-2109 Nov 02 j 12:30	3°M12'57	
opposition	-2115 Nov 22 j 09:00		0°-29'-37	max. Earth dist.	-2109 Nov 13 j 20:10	5° ™ 49'55	6.18832 AU
min. Earth dist.	-2115 Nov 21 j 14:32		4.23005 AU		J		
direct	-2114 Jan 21 j 04:42	8° 8 57'22		conjunction	-2109 Nov 15 j 03:34	6°M08'07	0°30'24
	-2114 Mar 27 j 13:10			minimum elong	-2109 Nov 15 j 03:36	6°M08'08	0°30'21
asc. node	-2114 May 26 j 10:13	26° 8 56'05		morning rise	-2109 Nov 27 j 18:49	9°M03'40	
evening set	-2114 May 28 j 08:14	27° 8 21'25			-2109 Dec 24 j 06:22	15° ™	
-	-2114 Jun 09 j 06:46	Π $^{\circ}0$		retrograde	-2108 Apr 02 j 17:58	27°M53'29	
				opposition	-2108 Jun 02 j 16:34	22°M58'23	0°12'29
conjunction	-2114 Jun 11 j 00:24	0°Ⅱ23′06	0°01'45	min. Earth dist.	-2108 Jun 03 j 08:07	22°M53'22	4.12822 AU
minimum elong	-2114 Jun 11 j 00:23	0°Ⅱ23′05	0°01'47	direct	-2108 Aug 02 j 02:23	18° ™ 03'57	
behind sun begin	-2114 Jun 10 j 16:04	0° Ⅱ 18'30		desc. node	-2108 Aug 14 j 22:03	18° ™ 19'50	
behind sun end	-2114 Jun 11 j 08:42	0° Ⅲ 27'41			-2108 Nov 04 j 07:27	0° ∡ 7	
max. Earth dist.	-2114 Jun 11 j 17:57	0°Ⅲ32′50	6.28871 AU	evening set	-2108 Dec 04 j 17:49	6° ₹ 55'04	
morning rise	-2114 Jun 24 j 14:43	3°Ⅱ23'42					
retrograde	-2114 Oct 25 j 09:56	21° Ⅲ 03′50		conjunction	-2108 Dec 17 j 13:05	9° ∡ 756'56	0°-14'-23
opposition	-2114 Dec 24 j 03:33	16° Ⅱ 05'19	0°33'00	minimum elong	-2108 Dec 17 j 13:03	9° ∡ 56'55	0°14'26
min. Earth dist.	-2114 Dec 24 j 00:19	16° Ⅱ 06′23	4.33894 AU	behind sun begin	-2108 Dec 17 j 09:14	9° ∡ ¹54'40	
direct	-2113 Feb 23 j 05:33	11° Ⅱ 01'56		behind sun end	-2108 Dec 17 j 16:53	9° ∡ ¹59'10	
evening set	-2113 Jun 30 j 18:07			max. Earth dist.	-2108 Dec 17 j 03:40	9° ∡ ′51'21	6.07454 AU
S	-2113 Jul 05 j 04:56	0ಂತಾ		morning rise	-2108 Dec 30 j 10:29	13° ∡ ¹00'04	
					-2107 Mar 27 j 15:05	0°ප	
conjunction	-2113 Jul 14 j 02:51	1°956'52	0°42'03	retrograde	-2107 May 09 j 15:52	2° る 47'55	
minimum elong	-2113 Jul 14 j 02:48	1°956'50	0°42'06		-2107 Jun 22 j 01:33		
max. Earth dist.	-2113 Jul 13 j 17:01	1° © 51'29	6.37856 AU	opposition	-2107 Jul 09 j 07:07		0°-55'-8
morning rise	-2113 Jul 27 j 08:43	4°950'16	0.5 / 05 0 110	min. Earth dist.	-2107 Jul 09 j 02:16		4.03087 AU
retrograde	-2113 Nov 25 j 03:16	21°954'45		direct	-2107 Sep 06 j 08:07		1.03007 110
opposition	-2112 Jan 24 j 03:48	16°959'57	1°23'47	uncet	-2107 Nov 14 j 00:52	0°る	
min. Earth dist.	-2112 Jan 24 j 18:16	16°955'14	4.40448 AU	evening set	-2106 Jan 08 j 20:24		
direct	-2112 Mar 26 j 07:59	11°956'35	4.40440710	evening set	2100 Juli 00 j 20.24	12 01133	
evening set	-2112 Jul 31 j 17:06	29°543'54		conjunction	-2106 Jan 21 j 22:21	15° る 19'29	0°-55'-22
evening set	-2112 Aug 01 j 22:48	0°Ω		minimum elong	-2106 Jan 21 j 22:18		0°55'25
max. Earth dist.	-2112 Aug 12 j 09:29	2° Ω 16'30	6.41392 AU	max. Earth dist.	-2106 Jan 22 j 19:02		6.00238 AU
max. Earth dist.	-2112 Aug 12 J 09.29	2 0610 30	0.41392 AU	morning rise	-2106 Feb 04 j 03:12		0.00238 AU
conjunction	-2112 Aug 13 j 17:08	2° Ω 33'47	1°09'34	morning risc	-2106 Mar 28 j 04:42	18 ⊙ 2903	
minimum elong	-2112 Aug 13 j 17:06	2° Ω 33'45	1°09'37	retrograde	-2106 Jun 16 j 07:44	8°≈52'32	
morning rise	-2112 Aug 15 j 17:00 -2112 Aug 26 j 13:58	5° Ω 22'07	1 0937	opposition	-2106 Aug 15 j 10:47	3°≈49'49	10 44' 1
morning rise	-2112 Aug 20 j 13.38 -2112 Oct 13 j 05:09			min. Earth dist.	-2106 Aug 13 j 10.47 -2106 Aug 14 j 12:57		3.99280 AU
retrograde	-2112 Oct 13 j 03:09 -2112 Dec 24 j 18:46	22°Ω17'19		iiiii. Eatui uist.	-2106 Aug 14 j 12.37 -2106 Sep 17 j 09:50		3.99280 AU
opposition	-2112 Bec 24 j 18.40 -2111 Feb 23 j 05:30		1°50'47	direct	-2106 Oct 12 j 13:59		
min. Earth dist.		$17^{\circ}\Omega 16'21$	4.40913 AU	direct	-2106 Oct 12 j 13:39 -2106 Nov 06 j 16:43	20 ○ 33 33	
min. Earm dist.	-2111 Feb 24 j 08:22	17 3 €10 21 15°RΩ	4.40913 AU		-2106 Nov 06 j 16.43 -2105 Jan 31 j 04:27		
direct	-2111 Mar 14 j 21:21			avanina aat			
direct	-2111 Apr 26 j 21:06	12° Ω 22'52		evening set	-2105 Feb 14 j 12:39	10 2140	
	-2111 Jun 08 j 21:35	15° Ω		. ,.	2105 F. 1 . 27 : 22 . 01	21022102	10 151 50
ovening set	-2111 Aug 31 j 00:00 -2111 Aug 31 j 19:25	0°M) 0°M 10!37		conjunction minimum elong	-2105 Feb 27 j 22:01		-1°-15'-58
evening set max. Earth dist.		0° mp 10'37	6 20652 ATT	minimum elong max. Earth dist.	-2105 Feb 27 j 22:00 -2105 Mar 01 j 16:55		1°16'01 6.00056 AU
max. Earm dist.	-2111 Sep 11 j 17:07	2° m 34'40	6.38653 AU				0.00030 AU
conjunction	2111 Cap 12: 12:20	2° m 58'37	1°17'41	morning rise	-2105 Mar 13 j 10:40 -2105 Apr 05 j 01:52	0° \	
conjunction minimum elong	-2111 Sep 13 j 12:26 -2111 Sep 13 j 12:26			ratrograda	-2105 Apr 05 j 01:52 -2105 Jul 23 j 04:12		
minimum elong morning rise	-2111 Sep 13 j 12:26 -2111 Sep 26 j 02:49	2° m 58'37 5° m 45'28	1°17'42	retrograde opposition	-2105 Jul 23 j 04:12 -2105 Sep 20 j 21:59	9°\(\frac{15}{58}\)'03	-1°-52'-42
-							
retrograde	-2110 Jan 25 j 08:49	22° m 57'50	1047127	min. Earth dist.	-2105 Sep 19 j 14:18	10°) (08'49	4.02891 AU
opposition	-2110 Mar 27 j 03:48	18° Mp 06'21	1°47'27	direct	-2105 Nov 17 j 21:58	5°) (01'28	
min. Earth dist.	-2110 Mar 28 j 12:57	17° m 55'48	4.35207 AU	evening set	-2104 Mar 22 j 16:46	24°) 17'12	
direct	-2110 May 28 j 15:58	13°Mp06'31			2104 4 07:00 47	2701/20112	10 71 25
	-2110 Sep 26 j 19:08	0∘ ⊽		conjunction	-2104 Apr 05 j 08:46		-1°-7'-35
evening set	-2110 Oct 01 j 19:12	1° Ω 06'56	(20207 ATT	minimum elong	-2104 Apr 05 j 08:49		1°07'36
max. Earth dist.	-2110 Oct 12 j 11:57	3° £ 31'25	6.30387 AU	max. Earth dist.	-2104 Apr 07 j 09:56		6.07044 AU
	2110.0 . 14:00.00	20 0 5 5 5 5 5	1002152		-2104 Apr 16 j 05:38	0° Υ	
conjunction	-2110 Oct 14 j 09:01	3° £ 56'52	1°03'53	morning rise	-2104 Apr 19 j 02:51	0° Υ 40'03	
minimum elong	-2110 Oct 14 j 09:03	3° £ 56'53	1°03'54	retrograde	-2104 Aug 26 j 07:15	20°Υ11'32	10.10165
morning rise	-2110 Oct 26 j 21:42	6° £ 46'23		opposition	-2104 Oct 24 j 18:56	15° Υ 06'50	-1°-19'-26
retrograde	-2109 Feb 27 j 13:43	24° Ω 39'24	1010100	min. Earth dist.	-2104 Oct 23 j 14:49	15°Υ16'26	4.12451 AU
opposition	-2109 Apr 29 j 13:15	19° £ 46'51	1°12'32	direct	-2104 Dec 22 j 13:09	10° Υ 07'02	
min. Earth dist.	-2109 Apr 30 j 18:11	19° £ 37'38	4.24843 AU	evening set	-2103 Apr 28 j 03:35		
direct	-2109 Jun 30 j 05:39	14~ == 49'47			-2103 May 02 j 18:33	0°8	

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2103 in astronomical counting style is the year 2104 BCE in historical counting style. opposition -2103 May 11 j 22:19 2°**8**04'32 0°-35'-9 -2097 May 04 i 08:57 24° \$\omega\$27'19 1°05'18 conjunction -2103 May 11 j 22:22 2°**8**04'34 0°35'08 min. Earth dist. -2097 May 05 j 13:01 24° **2**18'22 4.23345 AU minimum elong -2103 May 13 j 12:24 2°**8**26'08 6.18405 AU -2097 Jul 04 j 22:21 19°**£**30'37 max. Earth dist. direct -2103 May 25 j 16:56 5°**8**11'29 -2097 Oct 01 j 22:33 0°M morning rise -2103 Jul 11 j 03:38 15°**8** -2097 Nov 07 j 01:36 evening set 7°**IL**56'50 -2103 Sep 28 j 07:32 23°**8**40'35 -2097 Nov 18 j 10:38 retrograde max. Earth dist. 10°MJ35'10 6.17286 AU opposition -2103 Nov 26 j 03:05 18°**8**44'30 4.24408 AU -2097 Nov 19 j 16:56 10°ML52'47 min. Earth dist. conjunction 0°24'31 -2097 Nov 19 j 16:57 0°24'28 -2103 Dec 27 j 06:28 15°R₩ minimum elong 10°M52'48 -2097 Dec 02 j 08:59 direct -2102 Jan 25 j 18:38 13°**8**36'28 morning rise 13°ML49'18 -2102 Feb 24 j 17:44 15°8 -2097 Dec 07 j 11:42 15°M -2102 Apr 05 j 23:43 20°**8**25'58 -2096 Feb 24 j 15:49 asc. node 0°⊀ -2096 Apr 07 j 18:31 -2102 May 24 j 02:25 Π $^{\circ}0$ retrograde 2°**∡**¹46'59 evening set -2102 Jun 02 j 02:03 1°**I**57'46 -2096 May 21 j 12:09 30°RM opposition -2096 Jun 07 j 17:13 27°M 51'21 0°02'56 conjunction -2102 Jun 15 j 17:20 4°**II**58'37 0°07'44 min. Earth dist. -2096 Jun 08 j 05:45 27°ML47'18 4.11333 AU minimum elong -2102 Jun 15 j 17:20 4°**Ⅲ**58'37 0°07'47 desc. node -2096 Jun 24 j 19:17 25°M43'28 behind sun begin -2102 Jun 15 j 09:54 4°**I**I54'32 direct -2096 Aug 06 j 22:17 22°M 57'06 behind sun end -2102 Jun 16 j 00:45 5°**Ⅱ**02'42 -2096 Oct 15 j 13:32 max. Earth dist. -2102 Jun 16 j 05:54 5°**Ⅱ**05'34 6.30074 AU evening set -2096 Dec 09 j 12:32 11° ₹ 51'47 morning rise -2102 Jun 29 j 06:52 7°**Ⅱ**58'23 retrograde -2102 Oct 29 i 19:01 25°**Ⅲ**33'13 conjunction -2096 Dec 22 j 08:44 14° ₹ 54'34 0°-20'-43 opposition -2102 Dec 28 i 12:15 20° \$\mathbb{\pi}35'15 0°41'05 minimum elong -2096 Dec 22 j 08:43 14° ₹ 54'33 0°20'48 min. Earth dist. -2102 Dec 28 i 12:17 20°**Ⅲ**35'15 4.34821 AU max. Earth dist. -2096 Dec 22 j 04:14 14° ₹ 51'54 6.06166 AU direct -2101 Feb 27 j 18:49 15°**Ⅲ**31'49 morning rise -2095 Jan 04 j 06:56 17° ₹ 58'39 -2101 Jun 18 j 21:44 -2095 Feb 28 j 14:56 0°궁 0ಂತಾ -2101 Jul 05 j 07:14 3°930'17 -2095 May 14 j 22:25 7°る53'10 retrograde evening set opposition -2095 Jul 14 j 11:08 2°**ට**53'43 -1°-3'-42 -2101 Jul 18 j 14:59 min. Earth dist. -2095 Jul 14 j 04:40 2°る55'51 4.02128 AU conjunction 6°9524'32 0°46'50 -2095 Aug 07 j 00:52 30°R ✓ -2101 Jul 18 j 14:56 0°46'52 minimum elong 6°924'31 -2095 Sep 11 j 08:47 28°**尽** 00'33 -2101 Jul 18 j 02:57 max. Earth dist. 6°9517'58 6.38440 AU direct -2101 Jul 31 j 19:32 -2095 Oct 16 j 05:46 9°9517'11 0°궁 morning rise -2101 Nov 29 j 09:25 26°519'37 -2094 Jan 13 j 21:16 17° ₹ 18'53 evening set retrograde -2100 Jan 28 j 12:14 21°525'12 1°29'09 opposition -2094 Jan 27 j 00:06 20°**궁**27'26 0°-59'-47 -2100 Jan 29 j 03:33 21°520'13 4.40688 AU min. Earth dist. conjunction -2094 Jan 27 j 00:03 20°る27'24 0°59'50 -2100 Mar 30 j 17:38 16°521'58 direct minimum elong -2094 Jan 27 j 23:09 20°정41'16 5.99671 AU -2100 Jul 16 j 14:39 0 $^{\circ}\Omega$ max. Earth dist. evening set -2100 Aug 05 j 03:17 4°Ω09'06 morning rise -2094 Feb 09 j 06:14 23°る37'46 max. Earth dist. -2100 Aug 16 j 16:35 6°**Ω**40′13 6.41263 AU -2094 Mar 08 j 18:35 retrograde -2094 Jun 21 j 12:02 14°≈03'30 conjunction -2100 Aug 18 j 02:07 6°Ω58'32 1°11'57 opposition -2094 Aug 20 j 14:32 9°**≈**00'19 -1°-47'-55 -2100 Aug 18 j 02:05 6°**£**58'31 1°11'59 min. Earth dist. -2094 Aug 19 j 14:01 9°≈08'34 3.99197 AU minimum elong -2100 Aug 30 j 21:53 9°**Ω**46'29 direct -2094 Oct 17 j 15:09 4°≈06'05 morning rise -2100 Sep 24 j 13:47 15°**Ω** -2093 Jan 13 j 02:04 15°≈ retrograde -2100 Dec 29 j 04:36 26° **Ω** 42'44 -2093 Feb 19 j 17:24 23°≈32'27 evening set -2099 Feb 27 i 16:04 $21^{\circ}\Omega$ 50'37 $1^{\circ}52'10$ opposition -2099 Feb 28 j 20:38 21° Ω 41'27 4.40433 AU -2093 Mar 05 i 03:49 26°≈43'58 -1°-16'-33 min. Earth dist. conjunction -2093 Mar 05 i 03:49 26°≈43'58 1°16'35 direct -2099 May 01 i 09:04 $16^{\circ}\Omega$ 48'45 minimum elong -2093 Mar 07 i 00:18 27°≈10'26 6.00442 AU -2099 Aug 14 j 14:59 0° m max. Earth dist. -2099 Sep 05 i 04:10 4° m 37'27 morning rise -2093 Mar 18 i 17:22 29°≈57'01 evening set 7° Mp 00'40 max. Earth dist. -2099 Sep 15 j 23:42 6.37836 AU -2093 Mar 18 j 22:26 0°**₩** -2093 Jul 28 j 06:08 20° ¥ 10'47 retrograde -2099 Sep 17 j 20:29 7° m 25'28 1°17'02 -2093 Sep 25 j 22:10 15° ★ 05'36 -1°-50'-18 conjunction opposition -2093 Sep 24 j 15:02 15° **X** 16'14 4.03693 AU minimum elong -2099 Sep 17 j 20:30 7° Mp 25'28 1°17'02 min. Earth dist. morning rise -2099 Sep 30 j 10:26 10° m 12'26 direct -2093 Nov 23 j 00:25 10° **★** 08'34 retrograde -2098 Jan 29 j 21:50 27° Mp 28'48 evening set -2092 Mar 27 j 21:37 29°**∺**22'25 -2092 Mar 30 j 14:34 $0^{\circ}\Upsilon$ opposition -2098 Mar 31 j 18:18 22° Mp 37'10 1°44'20 -2098 Apr 02 j 02:43 22° m 26'51 4.34093 AU min. Earth dist. -2098 Jun 02 j 04:27 17° m 37'38 -2092 Apr 10 j 14:27 2°**Y**'33'15 -1°-4'-11 direct conjunction -2098 Sep 10 j 04:28 -2092 Apr 10 j 14:30 2°**Y**33'17 1°04'12 0∘**⊽** minimum elong -2098 Oct 06 j 04:41 -2092 Apr 12 j 16:16 3°**Y**′02′12 6.08202 AU evening set 5°**♀**40'07 max. Earth dist. max. Earth dist. -2098 Oct 16 j 23:56 8°**£**06′26 6.29057 AU morning rise -2092 Apr 24 j 08:56 5°**Y**44'46 retrograde -2092 Aug 31 j 02:26 25°**Y**08'51 conjunction -2098 Oct 18 j 18:30 8°**2**30'33 1°00'13 min. Earth dist. -2092 Oct 28 j 10:02 20°Υ13'54 4.13846 AU minimum elong -2098 Oct 18 j 18:33 8°**£**30'35 1°00'13 opposition -2092 Oct 29 j 13:42 20° **Y** 04'28 -1°-12'-9 -2098 Oct 31 j 07:09 11° \$\oldsymbol{\Omega}\$20'39 -2092 Dec 27 j 10:09 15°**Y**04'21 morning rise direct -2097 Mar 04 j 08:45 29° **2**20'09 -2091 Apr 15 j 19:25 retrograde

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 28 Attention, astronomical year style is used: The year -2091 in astronomical counting style is the year 2092 BCE in historical counting style.

	ical year style is used: Th		ın astronomical cou	inting style is the year			
evening set	-2091 May 03 j 05:08	3° 8 51'25			-2086 Aug 23 j 04:47	0∘ ⊽	
				evening set	-2086 Oct 10 j 10:39	10° ≏ 04'19	
conjunction	-2091 May 16 j 23:38	6° と 57'55	0°-29'-20	max. Earth dist.	-2086 Oct 21 j 04:57	12° ♀ 30'32	6.27961 AU
minimum elong	-2091 May 16 j 23:40	6° 8 57'56	0°29'20		·		
max. Earth dist.	-2091 May 18 j 09:49	7° 8 17'14	6.19939 AU	conjunction	-2086 Oct 23 j 00:20	12° Ω 55'00	0°56'18
	, ,	_	0.19939 AU			12° ⊆ 55'11	
morning rise	-2091 May 30 j 18:02	10° 8 04'04		minimum elong	-2086 Oct 23 j 00:23		0°56'17
	-2091 Jun 22 j 05:42			morning rise	-2086 Nov 04 j 13:13		
retrograde	-2091 Oct 02 j 21:20	28° 8 25'16			-2085 Jan 16 j 14:38	0° M	
opposition	-2091 Dec 01 j 10:17	23° 8 23'56	0°-11'-48	retrograde	-2085 Mar 08 j 23:01	3°M51'21	
min. Earth dist.	-2091 Nov 30 j 19:28	23° 8 28'56	4.25960 AU		-2085 Apr 30 j 21:25	30° Ŗ Ω	
direct	-2090 Jan 30 j 13:41	18° 8 21'29		opposition	-2085 May 09 j 00:22		0°57'54
asc. node	-2090 Feb 12 j 23:13	18° 8 38'42		min. Earth dist.	-2085 May 10 j 02:57		4.21936 AU
asc. node		0°Ⅱ				24° Ω 01'49	4.21730 AU
	-2090 May 06 j 13:19			direct	-2085 Jul 09 j 09:43		
evening set	-2090 Jun 06 j 21:59	6° Ⅱ 39'13			-2085 Sep 12 j 03:50	0°M₊	
				evening set	-2085 Nov 11 j 10:54	12°M31'22	
conjunction	-2090 Jun 20 j 12:34	9° Ⅱ 39'07	0°13'47		-2085 Nov 22 j 02:29	15° ™	
minimum elong	-2090 Jun 20 j 12:32	9° Ⅲ 39'07	0°13'50	max. Earth dist.	-2085 Nov 22 j 23:25	15° ™ 12'13	6.15696 AU
behind sun begin	-2090 Jun 20 j 08:26	9° Ⅲ 36'51			-		
behind sun end	-2090 Jun 20 j 16:39	9° ∏ 41'22		conjunction	-2085 Nov 24 j 02:48	15°M28'12	0°18'41
max. Earth dist.	3	9° П 45'19	6.31570 AU	minimum elong		15°M28'13	0°18'40
	-2090 Jun 20 j 23:48		0.31370 AU		-2085 Nov 24 j 02:49		0 1840
morning rise	-2090 Jul 04 j 00:47	12° Ⅱ 37'45		morning rise	-2085 Dec 06 j 19:24		
	-2090 Oct 26 j 04:14	0			-2084 Jan 30 j 00:41	0° ∡ 7	
retrograde	-2090 Nov 03 j 03:17	0°906'12		retrograde	-2084 Apr 12 j 18:04	7° ∡ ³31'48	
	-2090 Nov 11 j 02:25	30°R Ⅱ		desc. node	-2084 May 06 j 20:07	6° ∡ ³37'39	
opposition	-2089 Jan 01 j 22:43	25° Ⅱ 08'50	0°49'03	opposition	-2084 Jun 12 j 14:03	2° ∡ ³35'47	0°-6'-18
min. Earth dist.	-2089 Jan 01 j 23:41	25° ∏ 08'31	4.36182 AU	min. Earth dist.	-2084 Jun 13 j 01:55	2° ∡ ³31'56	4.09668 AU
	3	20° I 06'31	4.30162 AU	iiiii. Eartii tiist.	,		4.09008 AU
direct	-2089 Mar 04 j 08:44				-2084 Jul 03 j 17:40	30°RM	
	-2089 Jun 01 j 01:13	0		direct	-2084 Aug 11 j 15:13	27°M41'44	
evening set	-2089 Jul 09 j 21:36	8° © 00'40			-2084 Sep 18 j 20:14	0° ∡ ¹	
max. Earth dist.	-2089 Jul 22 j 11:57	10° © 45'14	6.39568 AU	evening set	-2084 Dec 14 j 04:17	16° ∡ ′41′09	
conjunction	-2089 Jul 23 j 03:49	10°953'53	0°51'23	conjunction	-2084 Dec 27 j 01:15	19° ∡ ¹45'00	0°-26'-43
minimum elong	-2089 Jul 23 j 03:46	10°953'52	0°51'25	minimum elong	-2084 Dec 27 j 01:13	19° х 44'59	0°26'46
_			0 31 23	_	-		
morning rise	-2089 Aug 05 j 07:07	13° © 45'33		max. Earth dist.	-2084 Dec 26 j 22:28	19° ∡ ⁴43'21	6.04576 AU
	-2089 Nov 12 j 02:56	$0 {\circ} \Omega$		morning rise	-2083 Jan 09 j 00:40	22° ₹ 50'18	
retrograde	-2089 Dec 03 j 17:12	0° Ω 44'08			-2083 Feb 09 j 07:22	0°ರ	
	-2089 Dec 25 j 05:17	30° Ŗ ூ		retrograde	-2083 May 20 j 00:22	12° る 52'52	
opposition	-2088 Feb 01 j 21:04	25° © 50'09	1°33'59	opposition	-2083 Jul 19 j 12:08	7° る 52'55	-1°-11'-33
min. Earth dist.	-2088 Feb 02 j 14:57		4.41530 AU	min. Earth dist.	-2083 Jul 19 j 02:33	7° る 56'05	4.00791 AU
	3		4.41330 AO		,		4.00771 AU
direct	-2088 Apr 04 j 06:37	20°547'03		direct	-2083 Sep 16 j 04:10	2°る59'44	
	-2088 Jun 28 j 20:15	$0 {\circ} \Omega$		evening set	-2082 Jan 18 j 20:39	22° る 22'36	
evening set	-2088 Aug 09 j 12:19	8° € 31'50					
max. Earth dist.	-2088 Aug 20 j 23:17	11° Ω 01'36	6.41740 AU	conjunction	-2082 Feb 01 j 00:40	25° පි 32'06	-1°-3'-37
				minimum elong	-2082 Feb 01 j 00:37	25° る 32'05	1°03'40
conjunction	-2088 Aug 22 j 10:05	11° Ω 20'37	1°13'53	max. Earth dist.	-2082 Feb 02 j 03:12		5.98712 AU
minimum elong	-2088 Aug 22 j 10:03	11° Ω 20'36	1°13'55	morning rise	-2082 Feb 14 j 07:54		0.50712110
_			1 13 33	morning rise			
morning rise	-2088 Sep 04 j 04:38	14° Ω 07'54			-2082 Feb 19 j 17:01	0° ≈	
	-2088 Sep 08 j 04:48	15° Ω			-2082 May 04 j 17:39	15° ≈	
	-2088 Dec 07 j 07:54	0° ™		retrograde	-2082 Jun 26 j 17:31	19° ≈ 12'55	
retrograde	-2087 Jan 02 j 10:32	1° m 03'29			-2082 Aug 19 j 10:07	15° R ≈	
•	-2087 Jan 28 j 15:32	30°RΩ		opposition	-2082 Aug 25 j 16:54	14° ≈ 09'20	-1°-50'-53
opposition	-2087 Mar 04 j 01:06	26° Ω 11'31	1°52'51	min. Earth dist.	-2082 Aug 24 j 15:25	14°≈17'56	3.98730 AU
• •	-						3.98730 AU
min. Earth dist.	-2087 Mar 05 j 05:50	26° Ω 02'19	4.40524 AU	direct	-2082 Oct 22 j 16:44	9° ≈ 14'46	
direct	-2087 May 05 j 18:05	21° Ω 09'57			-2082 Dec 22 j 12:08	15° ≈	
	-2087 Jul 27 j 23:59	0° m)		evening set	-2081 Feb 24 j 22:08	28° ≈ 43′12	
evening set	-2087 Sep 09 j 10:09	8° m 57'45			-2081 Mar 02 j 07:48	0°) €	
max. Earth dist.	-2087 Sep 20 j 04:39	11° Tp 20'36	6.37521 AU		·		
	·r , j ,	4 ***	-	conjunction	-2081 Mar 10 j 09:49	1° ¥ 55'14	-1°-16'-28
aaniunatian	2007 Can 22:01:42	110m. 15127	1015156	=		1° X 55'14	1°16'29
conjunction	-2087 Sep 22 j 01:42	11° Mp 45'36	1°15'56	minimum elong	-2081 Mar 10 j 09:50		
minimum elong	-2087 Sep 22 j 01:43	11° m 45'36	1°15'57	max. Earth dist.	-2081 Mar 12 j 09:29	2°) €23'33	6.00519 AU
morning rise	-2087 Oct 04 j 15:04	14° m 32'29		morning rise	-2081 Mar 24 j 00:24	5°) €08'42	
	-2087 Dec 30 j 06:37	0∘ ⊽		retrograde	-2081 Aug 02 j 08:05	25° 升 19'42	
retrograde	-2086 Feb 03 j 08:21	1° ≏ 51'34		opposition	-2081 Sep 30 j 22:10	20°) 14′26	-1°-46'-59
-	-2086 Mar 10 j 16:43	30°R, Mp		min. Earth dist.	-2081 Sep 29 j 14:06		4.04312 AU
opposition	-2086 Apr 05 j 05:46	26° m 59'55	1°40'38	direct	-2081 Nov 28 j 00:17	15° H 16'59	
		-		ance	-	15 χ 10 39	
min. Earth dist.	-2086 Apr 06 j 15:28	26° m 49'13	4.33361 AU		-2080 Mar 13 j 08:11		
direct	-2086 Jun 06 j 15:49	22° Mp 00'44		evening set	-2080 Apr 02 j 03:04	4° Y 29′24	

-	omena or Jupiter III		_				ige 29
	nical year style is used: Th	-					
conjunction	-2080 Apr 15 j 20:25	7° Y 40'01		max. Earth dist.	-2075 Sep 24 j 11:52	15° 110/46'46	6.36480 AU
minimum elong	-2080 Apr 15 j 20:28	7° Y 40′03	1°00'14				
max. Earth dist.	-2080 Apr 17 j 20:42	8° Y 08′00	6.09297 AU	conjunction	-2075 Sep 26 j 09:36		1°14'26
morning rise	-2080 Apr 29 j 15:29			minimum elong	-2075 Sep 26 j 09:37	16° Mp 12'12	1°14'27
	-2080 Aug 27 j 01:36	9° 8		morning rise	-2075 Oct 08 j 22:33	18° m 59'21	
retrograde	-2080 Sep 04 j 20:58	0° 8 07'48			-2075 Dec 02 j 08:10	0∘ ত	
	-2080 Sep 13 j 16:10	30° ŖƳ		retrograde	-2074 Feb 07 j 22:03	6° ≏ 23'40	
min. Earth dist.	-2080 Nov 02 j 05:59	25° Ƴ 12'45	4.15269 AU	opposition	-2074 Apr 09 j 21:21	1° ≏ 31'54	1°36'20
opposition	-2080 Nov 03 j 08:49	25° Y 03'36	-1°-4'-17	min. Earth dist.	-2074 Apr 11 j 06:02	1° ≏ 21'30	4.31925 AU
direct	-2079 Jan 01 j 09:20	20° Ƴ 02'59			-2074 Apr 22 j 03:10	30°R, Mp	
	-2079 Mar 28 j 04:10	$8^{\circ 0}$		direct	-2074 Jun 11 j 03:46	26° № 33'04	
evening set	-2079 May 08 j 06:36	8° 8 46'15			-2074 Jul 30 j 05:16	0∘ <u>ଫ</u>	
		. .		evening set	-2074 Oct 14 j 21:05		
conjunction	-2079 May 22 j 01:04	110251158	0°-23'-17	max. Earth dist.	-2074 Oct 25 j 17:11		6.26253 AU
•			0°23'16	max. Latui dist.	-2074 Oct 25 j 17.11	17 = 0740	0.20233 AU
minimum elong	-2079 May 22 j 01:06			. ,.	2074 0 + 27 : 10 52	170 0 21122	0051154
max. Earth dist.	-2079 May 23 j 10:24		6.21583 AU	conjunction	-2074 Oct 27 j 10:52		0°51'54
morning rise	-2079 Jun 04 j 18:47			minimum elong	-2074 Oct 27 j 10:54		0°51'52
	-2079 Jun 04 j 23:55			morning rise	-2074 Nov 09 j 00:02		
	-2079 Aug 23 j 00:33	Π $^{\circ}0$			-2074 Dec 24 j 04:12	0° M	
retrograde	-2079 Oct 07 j 10:27	3° Ⅱ 09'42		retrograde	-2073 Mar 13 j 22:38	8°M36'56	
	-2079 Nov 21 j 20:56	30°₹ ႘		opposition	-2073 May 13 j 22:32	3°M43'32	0°49'45
min. Earth dist.	-2079 Dec 05 i 10:45	28° 8 13'18	4.27628 AU	min. Earth dist.	-2073 May 15 j 00:35	3°M35'12	4.20049 AU
opposition	-2079 Dec 06 j 00:03	_	0°-2'-38		-2073 Jun 16 j 01:19		
asc. node	-2079 Dec 22 j 12:05		0 2 30	direct	-2073 Jul 14 j 04:27		
direct	-2078 Feb 04 j 08:15			direct	-2073 Aug 11 j 02:09	0°M	
direct	-						
	-2078 Apr 16 j 08:45	0°II			-2073 Nov 05 j 20:36		
evening set	-2078 Jun 11 j 17:28	П°Щ19′35		evening set	-2073 Nov 16 j 02:39	17°II L 21'44	
conjunction	-2078 Jun 25 j 06:53	14° Ⅱ 18'24	0°19'47	conjunction	-2073 Nov 28 j 19:07	20°M19'37	0°12'24
minimum elong	-2078 Jun 25 j 06:51	14° Ⅱ 18′23	0°19'49	minimum elong	-2073 Nov 28 j 19:08	20°M19'38	0°12'21
max. Earth dist.			6.33094 AU	behind sun begin	-2073 Nov 28 j 13:45	20°M16′30	
morning rise	-2078 Jul 08 j 18:05		0.000) 1110	behind sun end	-2073 Nov 29 j 00:31		
morning rise	-2078 Sep 12 j 09:56	0°9		max. Earth dist.	-2073 Nov 27 j 17:44		6.13808 AU
ratra ara da	-2078 Nov 07 j 12:12						0.13606 AU
retrograde	,	4°938'00		morning rise	-2073 Dec 11 j 12:39		
	-2077 Jan 03 j 23:26				-2072 Jan 10 j 05:00	0° ∡ 7	
opposition	-2077 Jan 06 j 08:56		0°56'44	desc. node	-2072 Mar 16 j 00:20		
min. Earth dist.	-2077 Jan 06 j 12:38		4.37432 AU	retrograde	-2072 Apr 17 j 22:15	12° ≯ 33′50	
direct	-2077 Mar 08 j 23:42	24° Ⅲ 37'31		opposition	-2072 Jun 17 j 18:09	7° ҂ ³37'20	0°-16'-8
	-2077 May 10 j 18:58	0 \circ \odot		min. Earth dist.	-2072 Jun 18 j 02:15	7° ∡ ³34'42	4.07958 AU
evening set	-2077 Jul 14 j 10:50	12° © 29'46		direct	-2072 Aug 16 j 12:54	2° х 43′36	
				evening set	-2072 Dec 19 j 03:24	21° ∡ ¹47'44	
conjunction	-2077 Jul 27 j 15:57	15°522'07	0°55'40				
minimum elong	-2077 Jul 27 j 15:54		0°55'43	conjunction	-2071 Jan 01 j 01:19	24° ₹ ′52'36	0°-32'-54
max. Earth dist.	-2077 Jul 26 j 22:14		6.40425 AU	minimum elong	-2071 Jan 01 j 01:17		0°32'57
morning rise	-2077 Aug 09 j 17:44		0.10120110	max. Earth dist.	-2071 Jan 01 j 03:18		6.03215 AU
morning rise	-2077 Oct 09 j 06:54	0°Ω		morning rise	-2071 Jan 14 j 01:45		0.03213710
	3			morning rise			
retrograde	-2077 Dec 07 j 23:47	5° Ω 08'47	1020122	rotro a J-	-2071 Jan 22 j 15:01	0°る	
opposition	-2076 Feb 06 j 06:13	0° Ω 15'08	1°38'23	retrograde	-2071 May 25 j 10:20	18°る08'19	10 101 20
min. Earth dist.	-2076 Feb 07 j 01:22	0° Ω 08'56	4.41942 AU	opposition	-2071 Jul 24 j 19:45	13° る 07'51	-1°-19'-20
	-2076 Feb 08 j 05:01			min. Earth dist.	-2071 Jul 24 j 07:53	13° る 11'47	3.99952 AU
direct	-2076 Apr 08 j 17:24			direct	-2071 Sep 21 j 09:21	8° る 14'40	
	-2076 Jun 07 j 04:33	0 $^{\circ}$ Ω		evening set	-2070 Jan 24 j 02:04	27° る 39'53	
evening set	-2076 Aug 13 j 21:48	12° Ω 56′00			-2070 Feb 02 j 19:57	0° ≈	
	-2076 Aug 23 j 09:18	15° Ω					
max. Earth dist.	-2076 Aug 25 j 04:11		6.41650 AU	conjunction	-2070 Feb 06 j 07:13	0° ≈ 50'00	-1°-7'-10
				minimum elong	-2070 Feb 06 j 07:10	0° ≈ 49'58	1°07'14
conjunction	-2076 Aug 26 j 18:19	15° Ω 44'19	1°15'28	max. Earth dist.	-2070 Feb 07 j 14:43	1°≈08'55	5.98482 AU
·	• •						J.70702 AU
minimum elong	-2076 Aug 26 j 18:18	15° Ω 44'18	1°15'29	morning rise	-2070 Feb 19 j 15:33	4°≈01'50	
morning rise	-2076 Sep 08 j 12:00	18° Ω 31'16			-2070 Apr 09 j 20:27	15°≈	
	-2076 Nov 05 j 21:31	0° m)		retrograde	-2070 Jul 02 j 01:29	24° ≈ 31'27	
retrograde	-2075 Jan 06 j 21:19	5° m/28'13		opposition	-2070 Aug 30 j 23:01	19° ≈ 27'31	-1°-53'-4
opposition	-2075 Mar 08 j 12:17	0°™36′24	1°53'02	min. Earth dist.	-2070 Aug 29 j 19:18	19° ≈ 36′54	3.99189 AU
min. Earth dist.	-2075 Mar 09 j 19:20	0° ™ 26'29	4.39940 AU		-2070 Oct 11 j 15:43	15°R≈	
	-2075 Mar 13 j 06:27	30°R Ω		direct	-2070 Oct 27 j 21:18	14° ≈ 32'42	
direct	-2075 May 10 j 06:34	25° Ω 35'03			-2070 Nov 13 j 03:55	15° ≈	
	-2075 Jul 05 j 21:50	0°m			-2069 Feb 13 j 01:48	0°) €	
evening set	-2075 Sep 13 j 18:26			evening set	-2069 Mar 02 j 05:45	3° ¥ 59′28	
				5		- /(5/20	

,	nical year style is used: The		C	· //		, 1	
conjunction	-2069 Mar 15 j 18:12	-	-1°-15'-50	max. Earth dist.	-2064 Aug 29 j 10:11		
minimum elong	-2069 Mar 15 j 18:14	7°) 11′24		mar. Bartii dibt.	200111118 29) 10:11	17 00 15	0.11011110
max. Earth dist.	-2069 Mar 17 j 18:27	7°) €39'58	6.01594 AU	conjunction	-2064 Aug 31 j 01:13	20°Ω05'40	1°16'37
morning rise	-2069 Mar 29 j 09:43		0.01374710	minimum elong	-2064 Aug 31 j 01:12		1°16'38
morning rise	-2069 Jul 21 j 06:21	0°Υ		morning rise	-2064 Sep 12 j 17:54		1 10 50
retrograde	-2069 Aug 07 j 07:13	0° Υ 28'46		morning risc	-2064 Oct 16 j 19:15	0° m	
retrograde	-2069 Aug 24 j 06:34			retrograde	-2063 Jan 11 j 06:27	9° m y 52'46	
opposition	-2069 Oct 05 j 22:10	25° ¥ 23′27	-1°-42'-52	opposition	-2063 Mar 12 j 23:08		1°52'36
min. Earth dist.	-2069 Oct 04 j 13:44	25°\(\frac{7}{34'32}\)	4.05880 AU	min. Earth dist.	-2063 Mar 14 j 06:32	4° m 51'04	4.38812 AU
direct	-2069 Dec 03 i 02:52		4.03880 AU	direct	-2063 May 14 j 15:32	0° TD 00'05	4.38812 AU
direct	-2069 Dec 03 j 02:32 -2068 Feb 23 j 10:53	20 γ (23 31		evening set	-2063 Sep 18 j 02:50	17° Mp 52'12	
evening set	-2068 Apr 07 j 07:29	9° Υ 33'11		max. Earth dist.	-2063 Sep 28 j 18:51		6.34941 AU
evening set	-2008 Apr 07 j 07.29	9 1 33 11		max. Earth dist.	-2003 Sep 28 J 18.31	20 IIJ 1437	0.34941 AU
conjunction	-2068 Apr 21 j 01:24	12° Ƴ 43'09	0°-55'-56	conjunction	-2063 Sep 30 j 17:28	20° m 40'39	1°12'29
minimum elong	-2068 Apr 21 j 01:27	12° Υ 43'11	0°55'56	minimum elong	-2063 Sep 30 j 17:30		1°12'29
max. Earth dist.	1 3		6.11228 AU	morning rise	-2063 Oct 13 j 06:21		1 12 29
morning rise			0.11228 AU	morning rise	-2063 Nov 12 j 16:29	0° ⊡	
morning rise	• •	0° 8			-	0 <u>₽</u> 10° ₽ 59'42	
	-2068 Jul 13 j 14:57	4° 8 59'47		retrograde	-2062 Feb 12 j 16:22		1021124
retrograde	-2068 Sep 09 j 13:54	_	4 17220 ATT	opposition	-2062 Apr 14 j 14:35	6° Ω 07'49	1°31'24
min. Earth dist.	-2068 Nov 07 j 00:19	0° ႘ 04'28 30° ℝ Υ	4.17338 AU	min. Earth dist.	-2062 Apr 15 j 23:39	5° £ 57'18	4.30066 AU
•,•	-2068 Nov 07 j 13:27		00.561.10	direct	-2062 Jun 15 j 18:42	1° Ω 09'22	
opposition	-2068 Nov 08 j 01:16		0°-56'-12	evening set	-2062 Oct 19 j 09:10		6 0 10 16 1 XX
direct	-2067 Jan 06 j 06:34			max. Earth dist.	-2062 Oct 30 j 07:31	21°2250'35	6.24246 AU
	-2067 Mar 06 j 01:28	0°8			2062 0 . 21 . 22 . 6	222 2 12121	00.4710.6
evening set	, ,	13° 8 32'41		conjunction	-2062 Oct 31 j 23:16		0°47'06
	-2067 May 19 j 16:56	15° 8		minimum elong	-2062 Oct 31 j 23:18		0°47'05
				morning rise	-2062 Nov 13 j 12:51		
conjunction	, ,		0°-17'-17		-2062 Dec 05 j 12:22	0°M₊	
minimum elong	• •			retrograde	-2061 Mar 18 j 22:32		
max. Earth dist.	-2067 May 28 j 03:36		6.23607 AU	opposition	-2061 May 18 j 22:41	8° M 35'11	0°41'06
morning rise	-2067 Jun 09 j 15:46			min. Earth dist.	-2061 May 19 j 21:35	8° M 27'51	4.18050 AU
	-2067 Jul 29 j 10:48	Π $^{\circ}0$		direct	-2061 Jul 18 j 22:33	3°M39'34	
retrograde	-2067 Oct 11 j 19:05	7° Ⅱ 44'55			-2061 Oct 19 j 05:59	15° ™	
asc. node	-2067 Nov 01 j 14:04	7° Ⅱ 02'24		evening set	-2061 Nov 20 j 20:56	22°M18'42	
opposition	-2067 Dec 10 j 10:17	2° Ⅱ 44'35	0°06'12				
min. Earth dist.	-2067 Dec 09 j 23:16	2° Ⅱ 48'16	4.29436 AU	conjunction	-2061 Dec 03 j 14:01	25°M17'38	0°05'56
	-2066 Jan 01 j 03:43	30° ₹ 8		minimum elong	-2061 Dec 03 j 14:01	25° ™ 17'39	0°05'53
direct	-2066 Feb 08 j 23:06	27° 8 41'38		behind sun begin	-2061 Dec 03 j 06:21	25°M13'09	
	-2066 Mar 20 j 06:23	Π $^{\circ}0$		behind sun end	-2061 Dec 03 j 21:41	25°M22'08	
evening set	-2066 Jun 16 j 08:34	15° Ⅱ 50′52		max. Earth dist.	-2061 Dec 02 j 16:44	25°M05'08	6.12006 AU
				morning rise	-2061 Dec 16 j 08:25	28°M17'29	
conjunction	-2066 Jun 29 j 21:01	18° Ⅱ 48'40	0°25'26		-2061 Dec 23 j 16:49	0°⊀	
minimum elong	-2066 Jun 29 j 20:59	18° Ⅱ 48'39	0°25'29	desc. node	-2060 Jan 23 j 15:45	6° ∡ ¹49'59	
max. Earth dist.	-2066 Jun 30 j 00:07	18° Ⅲ 50′22	6.34548 AU	retrograde	-2060 Apr 23 j 06:05	17° ∡ ′41'48	
morning rise	-2066 Jul 13 j 06:51	21° II 45'03		opposition	-2060 Jun 23 j 00:20	12° ∡ ⁴44'41	0°-26'00
	-2066 Aug 22 j 02:34	0ං ව		min. Earth dist.	-2060 Jun 23 j 05:47	12° ∡ 42'55	4.06506 AU
retrograde	-2066 Nov 11 j 18:20	9° © 01'45		direct	-2060 Aug 21 j 15:19	7° ∡ 751′08	
opposition	-2065 Jan 10 j 15:57	4° © 05'23	1°03'50	evening set	-2060 Dec 24 j 04:12	26° ₹ '58'41	
min. Earth dist.	-2065 Jan 10 j 22:21	4°903'17	4.38439 AU	-	-2059 Jan 05 j 19:48	0°ප	
	-2065 Feb 16 j 05:27	30°R Ⅱ			J		
direct	-2065 Mar 13 j 10:24			conjunction	-2059 Jan 06 j 03:07	0° る 04'23	0°-38'-53
	-2065 Apr 07 j 21:46	0ಂತ		minimum elong	-2059 Jan 06 j 03:04	0° ට 04'21	0°38'57
evening set	-2065 Jul 18 j 21:02	16°952'16		max. Earth dist.	-2059 Jan 06 j 10:22	0° る 08'43	6.02246 AU
max. Earth dist.	-2065 Jul 31 j 01:56		6.40882 AU	morning rise	-2059 Jan 19 j 04:36	3° ප 11'37	
man. Baran alou.	2000 vai 31 j 01.00	1, 0312,	0.10002110	retrograde	-2059 May 30 j 19:44	23° る 25'29	
conjunction	-2065 Aug 01 j 00:48	19°943'55	0°59'31	opposition	-2059 Jul 30 j 03:31	18° る 24'26	-1°-26'-29
minimum elong	-2065 Aug 01 j 00:45	19°5643'53	0°59'33	min. Earth dist.	-2059 Jul 29 j 12:28	18° る 29'26	3.99593 AU
morning rise	-2065 Aug 14 j 01:30			direct	-2059 Sep 26 j 13:39	13° る 31'08	
	-2065 Sep 18 j 22:38	0°Ω		anoot	-2058 Jan 16 j 20:24	0°≈	
retrograde	-2065 Dec 12 j 06:36	9° Ω 28'57		evening set	-2058 Jan 29 j 07:50	0 ∞ 2°≈56'49	
opposition	-2064 Feb 10 j 13:29	4° Ω 35'40	1°42'11	croming set	2000 Juli 27 J 07.30	2 /VIJU49	
min. Earth dist.	-2064 Feb 11 j 11:29	4°Ω28'33	4.41855 AU	conjunction	-2058 Feb 11 j 13:50	6°≈07'13	-1°-10'-11
mm. Lattii uist.	-2064 Mar 26 j 18:18	4 0 (20 33 30°Rூ	r. 710 <i>33 A</i> W	minimum elong	-2058 Feb 11 j 13:48	6°≈07'11	1°10'13
direct	-2064 Apr 13 j 02:37			max. Earth dist.	-2058 Feb 11 j 13:48	6°≈27'30	5.98716 AU
anoci	-2064 Apr 30 j 13:22	29 3 32 48		morning rise	-2058 Feb 12 j 23:41 -2058 Feb 24 j 23:19	0 ≈2730 9°≈19'22	2.70110 AU
	-2064 Apr 30 j 13.22 -2064 Aug 07 j 14:13			morning 1150	-2058 Feb 24 j 25.19 -2058 Mar 21 j 09:52		
evening set	-2064 Aug 18 j 05:26			retrograde	-2058 Mai 21 j 09.32 -2058 Jul 07 j 05:42		
evening set	-2007 Aug 10 J 03.20	1/061/4/		renograde	2000 Jui 0/J 00.42	47 ~~ +030	

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2058 in astronomical counting style is the year 2059 BCE in historical counting style. -2058 Sep 03 j 21:53 24°≈52'27 3.99997 AU -2052 Jul 21 j 16:04 15°Ωmin. Earth dist. -2058 Sep 05 j 03:15 24°≈42'29 -2052 Aug 22 j 14:14 21° Ω 41'26 opposition -1°-54'-19 evening set -2058 Nov 02 j 01:24 19°≈47'13 -2052 Sep 02 j 14:57 24°**Ω**06'25 direct max. Earth dist. 6.40316 AU -2057 Jan 25 j 11:09 0°**)**€ -2057 Mar 07 j 11:58 -2052 Sep 04 j 09:00 $24^{\circ}\Omega$ 29'32 $1^{\circ}17'21$ evening set 9°**)** 11'19 conjunction -2052 Sep 04 j 08:59 24°**\O**29'31 minimum elong 1°17'22 -2052 Sep 17 j 01:04 $27^{\circ}\Omega$ 16'22 conjunction -2057 Mar 21 j 01:30 12° **★** 23'05 -1°-14'-38 morning rise -2057 Mar 21 j 01:32 12°**米**23'06 -2052 Sep 29 j 15:36 minimum elong 1°14'39 0° m -2051 Jan 15 j 19:10 14° **m** 20'15 max. Earth dist. -2057 Mar 23 j 03:53 12° **★** 52'49 6.02897 AU retrograde morning rise -2057 Apr 03 j 17:34 15°**¥**36′02 opposition -2051 Mar 17 j 11:49 9°m/28'41 1°51'31 -2057 Jun 12 j 00:28 $0^{\circ}\Upsilon$ min. Earth dist. -2051 Mar 18 j 20:11 9° Mp 18'21 4.37707 AU -2057 Aug 12 j 06:40 5°**Υ**32'18 retrograde direct -2051 May 19 j 03:15 4°M28'01 -2057 Oct 10 j 20:01 opposition 0°**Υ**27'03 -1°-38'-4 evening set -2051 Sep 22 j 12:14 22° m/22'55 min. Earth dist. -2057 Oct 09 j 12:47 0°**Υ**37'43 4.07524 AU max. Earth dist. -2051 Oct 03 j 05:34 24° Mp 46'33 6.33533 AU -2057 Oct 14 j 03:22 30°**₹**₩ direct -2057 Dec 08 j 04:02 25°**¥**28'41 conjunction -2051 Oct 05 j 02:43 25° Mp 11'51 1°10'06 -2056 Jan 31 j 07:31 $0^{\circ}\Upsilon$ minimum elong -2051 Oct 05 j 02:45 25° Mp 11'52 1°10'06 evening set -2056 Apr 12 j 10:10 14°**Y**31'38 morning rise -2051 Oct 17 j 15:18 28° M 00'04 -2051 Oct 26 j 16:03 conjunction -2056 Apr 26 j 04:19 17°**Υ**'40'56 0°-51'-18 retrograde -2050 Feb 17 j 09:36 15° **2**37'59 minimum elong -2056 Apr 26 j 04:23 17°**Y**40'58 0°51'19 opposition -2050 Apr 19 j 08:51 10° **2**46'00 1°25'51 max. Earth dist. -2056 Apr 28 i 02:02 18°**℃**07'10 6.13070 AU min. Earth dist. -2050 Apr 20 i 16:14 10° \(\Omega \) 36'01 4.28461 AU morning rise $-2056 \text{ May } 09 \text{ j } 23:32 \quad 20^{\circ} \Upsilon 50'29$ direct -2050 Jun 20 i 08:36 5°**₽**48'04 -2056 Jun 21 i 10:30 0°8 evening set -2050 Oct 23 j 21:50 24° \(\Omega\)03'11 retrograde -2056 Sep 14 j 03:33 9°**8**47'12 max. Earth dist. -2050 Nov 03 j 22:03 26°**♀**34'37 6.22595 AU -2056 Nov 12 j 16:07 4°**8**43'48 0°-47'-53 opposition min. Earth dist. -2056 Nov 11 j 16:20 4°**8**51'53 4.19198 AU -2050 Nov 05 j 12:01 26°**£**56'27 conjunction 0°42'00 -2056 Dec 28 j 19:28 30°R℃ -2050 Nov 05 j 12:03 26°**£**56'28 0°41'59 minimum elong -2055 Jan 11 j 01:11 29°**Y**42'30 -2050 Nov 18 j 02:10 29°**♀**49'53 direct morning rise -2055 Jan 24 j 10:01 0°**8** -2050 Nov 18 j 19:53 0°M -2055 May 03 j 05:13 15°**႘** -2049 Feb 04 j 08:06 15°M -2055 May 18 j 01:37 18°**8**15'33 -2049 Mar 23 j 23:53 18° M21'07 evening set retrograde -2049 May 11 j 15:33 15°**R** ጤ -2055 May 31 j 19:06 21°**8**19'17 0°-11'-14 -2049 May 23 j 23:10 13°M26'57 0°32'11 conjunction opposition -2055 May 31 j 19:07 21°**8**19'18 0°11'12 -2049 May 24 j 19:58 13°M-20'16 4.16463 AU minimum elong min. Earth dist. -2055 May 31 j 13:04 21°**8**15'56 -2049 Jul 23 j 19:15 8°M31'43 behind sun begin direct -2055 Jun 01 j 01:09 21°**8**22'39 -2049 Sep 28 j 20:07 15°M behind sun end max. Earth dist. -2055 Jun 01 j 20:13 21°**8**33'19 6.25364 AU evening set -2049 Nov 25 j 14:29 27°ML14'17 morning rise -2055 Jun 14 j 11:26 24°**8**22'13 desc. node -2049 Dec 03 j 05:55 29°ML01'58 -2055 Jul 10 j 13:34 0°**Ⅱ** -2049 Dec 07 j 08:22 0°**∡**¹ asc. node -2055 Sep 11 j 14:37 10°**Ц**25'09 -2055 Oct 16 j 05:33 12°**Ⅲ**17'57 -2049 Dec 08 j 08:18 0°**∡**14'06 0°00'-36 retrograde conjunction -2055 Dec 14 j 20:11 7°**Ⅱ**18'13 0°14'57 -2049 Dec 08 j 08:18 0°**х** 14′06 0°00'40 opposition minimum elong min. Earth dist. -2055 Dec 14 j 12:24 7°**Ⅲ**20'49 behind sun begin -2049 Dec 08 j 00:16 0°**∡**¹09'23 4.30940 AU -2054 Feb 13 j 14:05 2°**Ц**15'07 behind sun end -2049 Dec 08 j 16:20 0°**∡**18'49 direct -2054 Jun 20 j 23:46 20°**Ⅲ**21'13 evening set max. Earth dist. -2049 Dec 07 i 15:36 0°**∡**04'16 6.10645 AU morning rise -2049 Dec 21 i 03:28 3°**∡**14'54 -2054 Jul 04 j 11:08 23°**II**18'07 0°30'57 conjunction retrograde -2048 Apr 28 j 10:49 22° × 46'13 minimum elong -2054 Jul 04 j 11:06 23° **I**I 18'05 0°31'00 opposition -2048 Jun 28 i 04:39 17° ₹ 48'38 0°-35'-30 max. Earth dist. -2054 Jul 04 i 09:50 23°**II**17'24 6.35682 AU min. Earth dist. -2048 Jun 28 j 06:48 17° **₹** 47'55 4.05514 AU -2054 Jul 17 j 19:49 26° **Ⅲ**13'34 direct -2048 Aug 26 j 15:13 12° ₹ 55'17 morning rise -2054 Aug 04 j 10:29 -2048 Dec 20 j 08:05 0°궁 0ംഉ -2054 Nov 16 j 00:39 13°526'01 -2048 Dec 29 j 03:27 2°る04'53 retrograde evening set opposition -2053 Jan 14 j 23:42 8°930'08 1°10'36 4.39158 AU min. Earth dist. -2053 Jan 15 j 08:18 8°**9**27'19 conjunction -2047 Jan 11 j 03:03 5°る11'10 0°-44'-26 direct -2053 Mar 17 j 20:31 3°926'38 minimum elong -2047 Jan 11 j 03:00 5°る11'08 0°44'30 -2053 Jul 23 j 07:46 21°516'00 max. Earth dist. -2047 Jan 11 j 13:18 5°**る**17'18 6.01687 AU evening set -2053 Aug 04 j 09:27 23°553'27 6.41127 AU -2047 Jan 24 j 05:37 8°**る**19'05 max. Earth dist. morning rise -2047 Jun 05 j 00:25 28°₹35'53 retrograde -2047 Aug 04 j 07:48 23°₹34'15 conjunction -2053 Aug 05 j 10:26 24°507'04 1°03'04 opposition -1°-32'-43 -2047 Aug 03 j 14:01 23°**♂**40'12 minimum elong -2053 Aug 05 j 10:23 24°507'03 1°03'06 min. Earth dist. 3.99542 AU morning rise -2053 Aug 18 j 09:49 26°556'33 direct -2047 Oct 01 j 15:42 18°**る**40'46 -2053 Sep 01 j 16:36 0 $^{\circ}$ Ω -2047 Dec 30 j 00:43 0°≈ retrograde -2053 Dec 16 j 14:29 13° Ω51'16 evening set -2046 Feb 03 j 10:25 8°≈06'10 opposition -2052 Feb 14 j 22:20 8°**Ω**58'23 1°45'27 min. Earth dist. -2052 Feb 15 j 22:07 8°**Ω**50'43 4.41630 AU -2046 Feb 16 j 17:34 11°≈16'48 -1°-12'-32 conjunction

-2052 Apr 17 j 12:33

direct

3°**Ω**55'48

-2046 Feb 16 j 17:32 11°≈16'47 1°12'35

minimum elong

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 32 Attention, astronomical year style is used: The year -2046 in astronomical counting style is the year 2047 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	ne year -2046	in astronomical cou	nting style is the year	2047 BCE in historical of	counting style.	
max. Earth dist.	-2046 Feb 18 j 07:35	11° ≈ 39'33	5.99161 AU		-2040 Feb 06 j 09:09		
morning rise	-2046 Mar 02 j 03:50	14° ≈ 29′07		opposition	-2040 Feb 19 j 07:37		1°48'06
	-2046 Mar 04 j 07:58			min. Earth dist.	-2040 Feb 20 j 08:19		4.41332 AU
	-2046 May 15 j 22:55	0° ∀		direct	-2040 Apr 21 j 22:17		
retrograde	-2046 Jul 12 j 08:02	4° ¥ 53'38			-2040 Jul 02 j 03:53		
	-2046 Sep 08 j 19:27			evening set	-2040 Aug 26 j 23:00		
min. Earth dist.	-2046 Sep 08 j 22:27		4.00897 AU	max. Earth dist.	-2040 Sep 06 j 23:19	28° {\ 31'11	6.39674 AU
opposition	-2046 Sep 10 j 03:45		-1°-54'-36		2040 0 00:47 00	200 0 5 4100	1015105
direct	-2046 Nov 07 j 02:54	24°≈53'24		conjunction	-2040 Sep 08 j 17:00		
. ,	-2045 Jan 03 j 07:08	0°)		minimum elong	-2040 Sep 08 j 17:00		1°17′38
evening set	-2045 Mar 12 j 14:41	14 π 14 44		marning rica	-2040 Sep 13 j 16:30	0°M)	
conjunction	-2045 Mar 26 j 04:55	17° ¥ 26'16	10 12! 54	morning rise retrograde	-2040 Sep 21 j 08:12 -2039 Jan 20 j 06:45	1°Mp40'55	
minimum elong	-2045 Mar 26 j 04:57			opposition	-2039 Mar 22 j 00:45		1°49'45
max. Earth dist.	-2045 Mar 28 j 06:45			min. Earth dist.	-2039 Mar 22 j 00:43	-	4.36751 AU
morning rise	-2045 Apr 08 j 21:46		0.04143710	direct	-2039 May 23 j 15:06	8° Mp 56'07	4.50751710
morning rise	-2045 May 21 j 04:35	0°Υ		evening set	-2039 Sep 26 j 21:12		
retrograde	-2045 Aug 17 j 00:26	10° Y 27'48		max. Earth dist.	-2039 Oct 07 j 13:24		6.32316 AU
min. Earth dist.	-2045 Oct 14 j 06:56		4.08990 AU				
opposition	-2045 Oct 15 j 14:06	5° Y ′22'42	-1°-32'-44	conjunction	-2039 Oct 09 j 11:15	29° m 42'03	1°07'18
direct	-2045 Dec 13 j 00:14	0° Y 23′53		minimum elong	-2039 Oct 09 j 11:17		1°07'18
evening set	-2044 Apr 17 j 09:46	19° Ƴ 23'06		· ·	-2039 Oct 10 j 19:11	0∘ <u>ଫ</u>	
C	1 3			morning rise	-2039 Oct 21 j 23:55	2° ₽ 30'46	
conjunction	-2044 May 01 j 04:11	22° Y ′31'49	0°-46'-28	retrograde	-2038 Feb 22 j 03:25	20° ≏ 14'34	
minimum elong	-2044 May 01 j 04:14	22° Y 31'51	0°46'28	opposition	-2038 Apr 24 j 02:47	15° ≏ 22'17	1°19'45
max. Earth dist.	-2044 May 02 j 22:49	22° Y ′56′13	6.14646 AU	min. Earth dist.	-2038 Apr 25 j 09:15	15° ≏ 12'35	4.27027 AU
morning rise	-2044 May 14 j 23:18	25° Y '40'38		direct	-2038 Jun 24 j 23:53	10° ≙ 24'40	
	-2044 Jun 03 j 08:51	9° 8		evening set	-2038 Oct 28 j 09:27	28° ≏ 42'40	
retrograde	-2044 Sep 18 j 17:20	14° 8 29'07			-2038 Nov 03 j 00:18	0°M	
min. Earth dist.	-2044 Nov 16 j 07:48		4.20718 AU	max. Earth dist.	-2038 Nov 08 j 13:24	1° M ₊16'42	6.21067 AU
opposition	-2044 Nov 17 j 04:33	9° 8 26'10	0°-39'-30				
direct	-2043 Jan 15 j 18:32	4° 8 24'31		conjunction	-2038 Nov 10 j 00:04		0°36'39
	-2043 Apr 15 j 14:51			minimum elong	-2038 Nov 10 j 00:06	1° ™ 36'43	0°36'38
evening set	-2043 May 22 j 20:23	22° 8 54'16		morning rise	-2038 Nov 22 j 14:33	4° ™ 30'57	
	2042 7 05:42.26	0.501.4.5511.4	00.51.16		-2037 Jan 10 j 17:13		
conjunction	-2043 Jun 05 j 13:26			retrograde	-2037 Mar 28 j 22:47		0022105
minimum elong	-2043 Jun 05 j 13:26 -2043 Jun 05 j 05:24		0°05.15	opposition	-2037 May 28 j 22:11		
behind sun begin behind sun end	-2043 Jun 05 j 21:29			min. Earth dist.	-2037 May 29 j 16:57 -2037 Jun 25 j 15:22		4.14935 AU
max. Earth dist.	-2043 Jun 06 j 11:31		6 26726 ATT	direct	-	13°M20'19	
morning rise	-2043 Jun 19 j 04:59		0.20720 AC	direct	-2037 Aug 30 j 04:24		
morning risc	-2043 Jun 23 j 19:13	0°Ⅱ		desc. node	-2037 Aug 30 j 04:24 -2037 Oct 13 j 03:47	21°M36'09	
asc. node	-2043 Jul 23 j 09:44	6° Ⅱ 15'12		dese. Hode	-2037 Nov 21 j 06:16	0° √	
retrograde	-2043 Oct 20 j 12:40	16° Ⅱ 48'42		evening set	-2037 Nov 30 j 07:21	2° ∡ ¹06'24	
opposition	-2043 Dec 19 j 04:56	11° Ⅱ 49'30	0°23'25	max. Earth dist.	-2037 Dec 12 j 11:06	4° ∡ 758′28	6.09241 AU
min. Earth dist.	-2043 Dec 18 j 22:40	11° Ⅱ 51'35	4.32059 AU		,		
direct	-2042 Feb 18 j 01:27	6° Ⅱ 46′16		conjunction	-2037 Dec 13 j 01:42	5° ∡ 107'05	0°-7'-3
evening set	-2042 Jun 25 j 13:52	24° Ⅱ 50′22		minimum elong	-2037 Dec 13 j 01:41	5° ₹ 07'04	0°07'06
				behind sun begin	-2037 Dec 12 j 18:14	5° ∡ ¹02'42	
conjunction	-2042 Jul 09 j 00:05	27° Ⅱ 46′28	0°36'13	behind sun end	-2037 Dec 13 j 09:08	5° ∡ 11′27	
minimum elong	-2042 Jul 09 j 00:03	27° Ⅱ 46′27	0°36'16	morning rise	-2037 Dec 25 j 21:54	8° ∡ 108'54	
max. Earth dist.	-2042 Jul 08 j 18:58	27° Ⅱ 43'40	6.36486 AU	retrograde	-2036 May 03 j 14:48	27° ∡ ¹47'35	
	-2042 Jul 19 j 04:08	0 \circ \odot		opposition	-2036 Jul 03 j 07:42	22° ∡ ¹49'25	0°-44'-43
morning rise	-2042 Jul 22 j 07:35	0° 9 541'06		min. Earth dist.	-2036 Jul 03 j 06:49	22° ∡ ¹49'42	4.04356 AU
retrograde	-2042 Nov 20 j 08:39	17° 9 50'25		direct	-2036 Aug 31 j 14:04	17° ∡ 56′07	
opposition	-2041 Jan 19 j 07:37	12° © 55'03	1°16'55		-2036 Dec 03 j 01:08	0°る	
min. Earth dist.	-2041 Jan 19 j 19:03	12°551'18	4.39615 AU	evening set	-2035 Jan 03 j 02:10	7° る 08'47	
direct	-2041 Mar 22 j 08:07	7° © 51'36				🚤	
evening set	-2041 Jul 27 j 18:24	25° © 40'24		conjunction	-2035 Jan 16 j 02:53		0°-49'-40
	2041 4 20110 ==	200	1007112	minimum elong	-2035 Jan 16 j 02:50		0°49'43
conjunction	-2041 Aug 09 j 19:53	28°930'57	1°06'13	max. Earth dist.	-2035 Jan 16 j 18:13		6.00884 AU
minimum elong	-2041 Aug 09 j 19:50	28°930'56	1°06'15	morning rise	-2035 Jan 29 j 06:23	13° る 24'34	
max. Earth dist.	-2041 Aug 08 j 16:01	28°9515'45	6.41189 AU	ratrograda	-2035 Apr 21 j 06:52	0°≈ 3°22/5/16	
morning rise	-2041 Aug 16 j 15:08	0°Ω 1°Ω19'56		retrograde	-2035 Jun 10 j 07:15 -2035 Jul 30 j 19:23	3°≈45'16 30°Rる	
morning rise	-2041 Aug 22 j 18:09 -2041 Nov 04 j 06:38	1371936 15°Ω		opposition	-2035 Jul 30 j 19:23 -2035 Aug 09 j 11:53		-1°-38'-17
retrograde	-2041 Nov 04 j 06:38 -2041 Dec 20 j 22:21	13° δ ι 18° Ω 14'50		min. Earth dist.	-2035 Aug 09 j 11:53		
- Strograde	2011 200 20 j 22.21	10 061700		Lartii dist.	2000 11ug 00 j 10.01	20 0 47 32	J.,,,1,77 AU

•	ical year style is used: The		•			, .	ige 33
direct	-2035 Oct 06 j 17:27	-	in astronomical co	conjunction	-2029 Aug 14 j 05:14	2° Ω 55'50	1°09'01
	-2035 Dec 09 j 00:00	0° ≈		minimum elong	-2029 Aug 14 j 05:12	2°Ω55'48	1°09'03
evening set	-2034 Feb 08 j 14:06			morning rise	-2029 Aug 27 j 02:17	5° Ω 44'04	
8	-2034 Feb 15 j 20:30			5 5	-2029 Oct 11 j 18:08		
	J			retrograde	-2029 Dec 25 j 06:12		
conjunction	-2034 Feb 21 j 22:10	16° ≈ 27'04	-1°-14'-22	opposition	-2028 Feb 23 j 16:52		1°50'05
minimum elong	-2034 Feb 21 j 22:09	16° ≈ 27'03	1°14'25	min. Earth dist.	-2028 Feb 24 j 19:27		4.41643 AU
max. Earth dist.	-2034 Feb 23 j 13:35	16° ≈ 50'38	5.99271 AU		-2028 Mar 17 j 09:47	15°R Ω	
morning rise	-2034 Mar 07 j 09:39	19° ≈ 39'48		direct	-2028 Apr 26 j 09:55	12° Ω 42'52	
	-2034 Apr 22 j 16:59	0°) €			-2028 Jun 05 j 11:17	15° Ω	
retrograde	-2034 Jul 17 j 09:43	10°) 02′26			-2028 Aug 29 j 02:51	0° m	
min. Earth dist.	-2034 Sep 13 j 21:51	5°) €08'09	4.01470 AU	evening set	-2028 Aug 31 j 05:54	0° Mp 27′51	
opposition	-2034 Sep 15 j 04:45	4°) 57′38	-1°-54'-4	max. Earth dist.	-2028 Sep 11 j 03:25	2°M 51'30	6.39599 AU
direct	-2034 Nov 12 j 03:17	0°) €01'36					
evening set	-2033 Mar 17 j 19:33	19° ∺ 21'42		conjunction	-2028 Sep 12 j 23:00	3°m/15'31	1°17'26
				minimum elong	-2028 Sep 12 j 23:00	3° Mp 15′31	1°17'27
conjunction	-2033 Mar 31 j 10:41		-1°-10'-35	morning rise	-2028 Sep 25 j 13:33	6° Mp 02′02	
minimum elong	-2033 Mar 31 j 10:44		1°10'36	retrograde	-2027 Jan 24 j 15:32	23° Mp 10'44	
max. Earth dist.	-2033 Apr 02 j 12:14		6.05123 AU	opposition	-2027 Mar 26 j 11:33	18° m 19'08	1°47'21
morning rise	-2033 Apr 14 j 04:10			min. Earth dist.	-2027 Mar 27 j 20:06	18° Mp 08'46	4.36289 AU
	-2033 May 02 j 17:11	0 ° Υ		direct	-2027 May 28 j 00:52	13° m 19'07	
retrograde	-2033 Aug 21 j 22:27				-2027 Sep 25 j 10:03	0∘ ⊽	
min. Earth dist.	-2033 Oct 19 j 04:48	10° Ƴ 33'14	4.10246 AU	evening set	-2027 Oct 01 j 03:00	1° ≏ 16′04	
opposition		10° Y 23′11	-1°-26'-39	max. Earth dist.	-2027 Oct 11 j 20:30	3° ჲ 40'33	6.31507 AU
direct	-2033 Dec 18 j 00:10	5° Y 23'57					
evening set	-2032 Apr 22 j 11:57	24° Υ' 20'13		conjunction	-2027 Oct 13 j 16:52	4° Ω 05'33	1°04'10
		••		minimum elong	-2027 Oct 13 j 16:54	4° Ω 05'34	1°04'10
conjunction	-2032 May 06 j 06:42		0°-41'-10	morning rise	-2027 Oct 26 j 05:17	6° ≏ 54'32	
minimum elong	-2032 May 06 j 06:45		0°41'09	retrograde	-2026 Feb 26 j 16:38	24° Ω 43'07	
max. Earth dist.	-2032 May 08 j 00:27		6.16095 AU	opposition	-2026 Apr 28 j 17:04		1°13'20
	-2032 May 17 j 09:03	0°8		min. Earth dist.	-2026 Apr 29 j 23:29	19° Ω 40'57	4.25891 AU
morning rise	-2032 May 20 j 01:42	0° 8 36'36		direct	-2026 Jun 29 j 11:53	14° £ 53'22	
	-2032 Jul 31 j 23:02				-2026 Oct 18 j 11:22	0°M	
retrograde	-2032 Sep 23 j 07:34			evening set	-2026 Nov 01 j 17:20	3°M13'32	
.	-2032 Nov 16 j 05:15		00 201 20	max. Earth dist.	-2026 Nov 12 j 21:20	5°M48'07	6.19693 AU
opposition	-2032 Nov 21 j 19:32		0°-30'-39		2026 N 14:00.05	60 M 00113	0021116
min. Earth dist.	-2032 Nov 20 j 23:31		4.22230 AU	conjunction	-2026 Nov 14 j 08:05	6°M08'13	0°31'16
direct	-2031 Jan 20 j 12:16	9° 8 12'53		minimum elong	-2026 Nov 14 j 08:07 -2026 Nov 26 j 23:17	6°M08'15	0°31′14
avanina aat	-2031 Mar 25 j 06:33	15° 8		morning rise		9°M03'21	
evening set	-2031 May 27 j 17:58	28° 8 42'20		retrograde	-2026 Dec 23 j 12:41 -2025 Apr 02 j 17:46	15°M 27°M49'38	
asc. node	-2031 Jun 01 j 11:57 -2031 Jun 07 j 07:49	28 3 42 20 0° Ⅱ		Č	-2025 Apr 02 j 17:46 -2025 Jun 02 j 17:13	27 IIL4938 22°IIL54'36	0°14'08
	-2031 Juli 0/ J 0/.49	υщ		opposition min. Earth dist.	-2025 Jun 03 j 09:56	22°M49'13	
conjunction	-2031 Jun 10 j 10:13	0° Ⅱ 41'21	0°01'00	direct	-2025 Aug 02 j 04:29	17°M59'54	4.13403 AU
minimum elong	-2031 Jun 10 j 10:13	0° П 41'21	0°01'03	desc. node	-2025 Aug 02 j 04:29 -2025 Aug 25 j 03:41	17 1163934 18°M50'21	
behind sun begin	-2031 Jun 10 j 01:54	0° П 36'45	0 01 03	desc. node	-2025 Aug 25 j 05:41 -2025 Nov 04 j 18:59	0° √	
behind sun end	-2031 Jun 10 j 18:31	0° П 36'43		evening set	-2025 Nov 04 j 18.39 -2025 Dec 04 j 20:20	6° ∡ ¹49'54	
max. Earth dist.	-2031 Jun 11 j 04:08	0° Д 4337	6.28216 AU	evening set	-2023 DCC 04 J 20.20	0 🗡 49 34	
morning rise	-2031 Jun 24 j 00:58	3° П 42'25	0.20210 AC	conjunction	-2025 Dec 17 j 15:34	9° ∡ 751'35	0°-13'-10
retrograde	-2031 Oct 25 j 00:05	21° II 25'08		minimum elong	-2025 Dec 17 j 15:33	9° 🖈 51'35	0°13'14
opposition	-2031 Oct 23 j 00:03	16° Ⅱ 26'32	0°31'58	behind sun begin	-2025 Dec 17 j 10:42	9° × ⁷ 48'43	0 13 14
min. Earth dist.	-2031 Dec 23 j 10:17	16° Ⅱ 20′32	4.33437 AU	behind sun end	-2025 Dec 17 j 20:23	9° × 54'26	
direct	-2030 Feb 22 j 17:51	11° II 23'17	4.55457 110	max. Earth dist.	-2025 Dec 17 j 04:53	9° х 45'16	6.07704 AU
evening set	-2030 Jun 30 j 05:47	29° I I24'17		morning rise	-2025 Dec 30 j 12:31	12° ₹ 54'28	0.07701710
evening set	-2030 Jul 02 j 23:31	0°9		morning rise	-2024 Mar 27 j 12:54	0°る	
	2030 Jul 02 J 23.31	~		retrograde	-2024 May 08 j 17:18	0 0 2° 石 41'16	
conjunction	-2030 Jul 13 j 14:55	2°919'26	0°41'21		-2024 Jun 20 j 03:12		
minimum elong	-2030 Jul 13 j 14:53	2°919'25	0°41'24	opposition	-2024 Jul 08 j 07:13		0°-53'-20
max. Earth dist.	-2030 Jul 13 j 08:07	2°915'43	6.37674 AU	min. Earth dist.	-2024 Jul 08 j 05:09		4.02958 AU
morning rise	-2030 Jul 26 j 20:58	5°913'01		direct	-2024 Sep 05 j 09:35		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
retrograde	-2030 Nov 24 j 15:02	22°917'57			-2024 Nov 13 j 15:55	0°る	
opposition	-2029 Jan 23 j 16:47	17°923'01	1°22'50	evening set	-2023 Jan 07 j 22:36		
min. Earth dist.	-2029 Jan 24 j 04:52	17° © 19'05	4.40572 AU				
direct	-2029 Mar 26 j 19:24	17 3 1703		conjunction	-2023 Jan 21 j 00:13	15° る 14'24	0°-54'-21
				-	-		
	-2029 Jul 31 11/:52	0.97		minimum eiong	-2023 Jan 21100:10	13 014 22	0°54'24
evening set	-2029 Jul 31 j 17:52 -2029 Aug 01 i 05:06	0°Ω 0°Ω06'04		minimum elong max. Earth dist.	-2023 Jan 21 j 00:10 -2023 Jan 21 j 17:24		
evening set max. Earth dist.	-2029 Jul 31 j 17:52 -2029 Aug 01 j 05:06 -2029 Aug 12 j 23:22	0°Ω06'04 2°Ω39'32	6.41843 AU	max. Earth dist.	-2023 Jan 21 j 10:10 -2023 Jan 21 j 17:24 -2023 Feb 03 j 05:03	15° ⋜ 24'43	5.99745 AU

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 34 Attention, astronomical year style is used: The year -2023 in astronomical counting style is the year 2024 BCE in historical counting style.

Attention, astronom	ical year style is used: Tl	ne year -2023	in astronomical cou	inting style is the year	2024 BCE in historical of	counting style.	
	-2023 Mar 27 j 14:24	0° ≈		min. Earth dist.	-2017 Jan 28 j 16:58	21° 5 43'42	4.41271 AU
retrograde	-2023 Jun 15 j 09:44	8° ≈ 50'00		direct	-2017 Mar 31 j 08:33	16°5945'24	
opposition	-2023 Aug 14 j 13:19	3° ≈ 47'26	-1°-42'-58		-2017 Jul 15 j 08:51	0 $^{\circ}$ Ω	
min. Earth dist.	-2023 Aug 13 j 15:29	3° ≈ 54'45	3.98472 AU	evening set	-2017 Aug 05 j 15:06	4° Ω 30′07	
	-2023 Sep 16 j 01:01	30°Ŗる		max. Earth dist.	-2017 Aug 17 j 06:20	7° Ω 01'56	6.42061 AU
direct	-2023 Oct 11 j 15:10	28° る 53'32					
	-2023 Nov 06 j 05:44	0° ≈		conjunction	-2017 Aug 18 j 14:12	7° Ω 19'19	
	-2022 Jan 30 j 07:26			minimum elong	-2017 Aug 18 j 14:10	7° Ω 19'18	1°11'30
evening set	-2022 Feb 13 j 16:36	18° ≈ 22'54		morning rise	-2017 Aug 31 j 10:00		
					-2017 Sep 23 j 11:03		
conjunction	-2022 Feb 27 j 01:56			retrograde	-2017 Dec 29 j 13:21		
minimum elong	-2022 Feb 27 j 01:56			opposition	-2016 Feb 28 j 02:33		1°51'34
max. Earth dist.	-2022 Feb 28 j 19:56		5.99030 AU	min. Earth dist.	-2016 Feb 29 j 05:47		4.41381 AU
morning rise	-2022 Mar 12 j 14:28			direct	-2016 Apr 30 j 19:25		
	-2022 Apr 04 j 00:34				-2016 Aug 12 j 19:31	0° m	
retrograde	-2022 Jul 22 j 12:37			evening set	-2016 Sep 04 j 13:58	4° m 51'57	
min. Earth dist.	-2022 Sep 18 j 22:11			max. Earth dist.	-2016 Sep 15 j 09:51	7° Mp 15'02	6.38866 AU
opposition	-2022 Sep 20 j 05:07		-1°-52'-36				
direct	-2022 Nov 17 j 04:54			conjunction	-2016 Sep 17 j 06:18	7° m 39'36	
evening set	-2021 Mar 23 j 00:16	24° ★ 28'13		minimum elong	-2016 Sep 17 j 06:18		1°16'52
				morning rise	-2016 Sep 29 j 20:16		
conjunction	-2021 Apr 05 j 16:23			retrograde	-2015 Jan 29 j 04:51		
minimum elong	-2021 Apr 05 j 16:26			opposition	-2015 Mar 31 j 01:13		1°44'22
max. Earth dist.	-2021 Apr 07 j 19:43		6.05882 AU	min. Earth dist.	-2015 Apr 01 j 11:08		4.35112 AU
	-2021 Apr 15 j 16:35	0° Υ		direct	-2015 Jun 01 j 13:59		
morning rise	-2021 Apr 19 j 10:30	0°Υ52'13			-2015 Sep 08 j 20:29	0∘ ⊽	
retrograde	-2021 Aug 26 j 19:05	20° Υ 28'30	4 4 4 4 4 0 0 4 4 4 4	evening set	-2015 Oct 05 j 11:59	5° Ω 47'19	6 2 00 77 1 1 1
min. Earth dist.	-2021 Oct 24 j 00:34	15° Y 33'52		max. Earth dist.	-2015 Oct 16 j 04:44	8° <u>11</u> 11'57	6.29977 AU
opposition	-2021 Oct 25 j 06:20	15° Y 23'42	-1°-19'-54		2015 0 + 10 : 01 42	00 0 27122	100012.5
direct	-2021 Dec 22 j 21:55	10° Υ 24'03		conjunction	-2015 Oct 18 j 01:43	8° £ 37'22	1°00'35
evening set	-2020 Apr 27 j 14:33			minimum elong	-2015 Oct 18 j 01:46	8° Ω 37'23	1°00'35
	-2020 Apr 30 j 17:57	0°8		morning rise	-2015 Oct 30 j 14:23		
. ,.	2020 M 11:00 12	20 4157	00.251.22	retrograde	-2014 Mar 03 j 11:10		1007114
conjunction	-2020 May 11 j 09:13	2° 8 24'57		opposition	-2014 May 03 j 12:28		1°06'14
minimum elong	-2020 May 11 j 09:15	2° 8 24'58		min. Earth dist.	-2014 May 04 j 17:05		4.24096 AU
max. Earth dist.	-2020 May 12 j 23:56	2° 8 46'57	0.17338 AU	direct	-2014 Jul 04 j 02:46		
morning rise	-2020 May 25 j 04:09	5° 8 32'22			-2014 Sep 30 j 23:54 -2014 Nov 06 j 06:44	0°M	
	-2020 Jul 08 j 16:51 -2020 Sep 27 j 22:00			evening set	-2014 NOV 00 J 00:44	7° M 58'07	
retrograde			0°-21'-35	agniumation	-2014 Nov 18 j 22:04	100 m 52140	0025125
opposition min. Earth dist.	,	19° 8 02'34	4.23820 AU	conjunction	5		0°25'25 0°25'23
IIIII. Eartii dist.	-2020 Nov 25 j 16:30	19 008 34 15°R 8	4.23820 AU	minimum elong max. Earth dist.	-2014 Nov 18 j 22:05 -2014 Nov 17 j 14:55	10°M53'50	6.17807 AU
direct	-2020 Dec 31 j 12:08	13 KO 14° 8 00'17			,	13°M50'01	0.17807 AU
direct	-2019 Jan 25 j 08:22 -2019 Feb 19 j 12:05	14 800 17 15° 8		morning rise	-2014 Dec 01 j 13:47 -2014 Dec 06 j 15:26	15°M	
asc. node	-2019 Feb 19 j 12.03 -2019 Apr 10 j 03:53	21° 8 39'16			-2014 Dec 00 j 13:20 -2013 Feb 23 j 22:02	13 IIC 0° ⊼ 7	
asc. Houe	-2019 Apr 10 j 03:33	0° I		retrograde	-2013 Feb 23 j 22:02 -2013 Apr 07 j 22:01	2° х 45′38	
evening set	-2019 Jun 01 j 14:51	2° Ⅱ 22'39		retrograde	-2013 Apr 07 j 22:01 -2013 May 21 j 09:46		
evening set	-2019 Juli 01 j 14.31	2 1122 39		opposition	-2013 Jun 07 j 19:02		0°04'33
conjunction	-2019 Jun 15 j 06:30	5° Ⅱ 23'44	0°07'12	min. Earth dist.	-2013 Jun 08 j 10:22		4.11564 AU
minimum elong	-2019 Jun 15 j 06:29	5° Ⅱ 23'43	0°07'15	desc. node	-2013 Jul 04 j 10:37		4.11304 AC
behind sun begin	-2019 Jun 14 j 22:54	5° Ⅱ 19'33	0 0/13	direct	-2013 Jul 04 j 10.37 -2013 Aug 07 j 02:04	22°M55'54	
behind sun end	-2019 Jun 15 j 14:03	5° I 1933		direct	-2013 Aug 07 j 02:04 -2013 Oct 15 j 19:50	0° ⊼	
max. Earth dist.	-2019 Jun 15 j 22:57	5° I 32′50	6.29795 AU	evening set	-2013 Oct 13 j 19:30 -2013 Dec 09 j 16:43	11° х 50'54	
morning rise	-2019 Jun 28 j 20:02	8° П 23'38	0.27173 AO	evening set	-2013 Dec 07 j 10.43	11 × 30 34	
retrograde	-2019 Juli 28 j 20:02 -2019 Oct 29 j 08:38	25° I 59'13		conjunction	-2013 Dec 22 j 12:41	14° ∡ °53'39	0°-19'-36
opposition	-2019 Dec 28 j 02:59	21° I I01'06	0°40'16	minimum elong	-2013 Dec 22 j 12:39	14° 🖈 53'38	0°19'40
min. Earth dist.	-2019 Dec 28 j 00:44	21° I I01'50	4.34850 AU	max. Earth dist.	-2013 Dec 22 j 04:39		6.06088 AU
direct	-2019 Dec 28 j 00.44 -2018 Feb 27 j 08:16	15° I 57'44	1.57050 AU	morning rise	-2013 Dec 22 j 04.39 -2012 Jan 04 j 10:51	17° × 57'44	0.00000 AU
direct	-2018 Feb 2/j 08:16 -2018 Jun 16 j 10:45	15° ய 57 44		morning rise	-2012 Jan 04 j 10:31 -2012 Feb 28 j 20:00	1/* メ・ 3/*44	
evening set	-2018 Jul 16 j 10.43	ა. 3° © 55'18		retrograde	-2012 Feb 28 j 20.00 -2012 May 14 j 00:14	0 3 7° る 52'37	
evening set	2010 Jul 04 J 20.33	10 دروست ر		opposition	-2012 May 14 j 00.14 -2012 Jul 13 j 13:32	7 3 3237 2° る 53'26	-1°-2'-7
conjunction	2019 Jul 10:04:15	6°549'26	0°46'16	min. Earth dist.		2°る55'27	4.01759 AU
conjunction minimum elong	-2018 Jul 18 j 04:15 -2018 Jul 18 j 04:12	6°9549'25	0°46'17	mm. Earm uist.	-2012 Jul 13 j 07:26		7.01/37 AU
Č	3	6°9949'23 6°9943'12	6.38769 AU	direct	-2012 Aug 06 j 02:27		
max. Earth dist.	-2018 Jul 17 j 16:48	6°9943'12 9°9542'03	0.30/09 AU	direct	-2012 Sep 10 j 10:05	28°×'00'19	
morning rise	-2018 Jul 31 j 09:06			avanina ast	-2012 Oct 15 j 09:07 -2011 Jan 13 j 01:56		
retrograde	-2018 Nov 28 j 23:11	26°543'10	1028110	evening set	-2011 Jan 13 J 01:56	1/ 620'33	
opposition	-2017 Jan 28 j 01:47	21° © 48'38	1°28'19				

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2011 in astronomical counting style is the year 2012 BCE in historical counting style. -2011 Jan 26 j 04:41 20°る29'40 0°-58'-55 -2006 Nov 07 j 11:26 $0^{\circ}\Omega$ conjunction -2011 Jan 26 j 04:38 20°る29'38 -2006 Dec 03 j 03:20 1°**Ω**02'07 minimum elong 0°58'57 retrograde -2011 Jan 27 j 02:53 20°**5**43'01 -2006 Dec 28 j 19:18 30°RS max. Earth dist. 5.99087 AU -2011 Feb 08 j 10:32 23°중40'12 -2005 Feb 01 j 07:58 26°508'00 1°33'10 morning rise opposition -2011 Mar 07 j 17:18 0°≈ min. Earth dist. -2005 Feb 02 j 00:56 26°502'30 4.41592 AU 14°≈08'44 -2005 Apr 04 j 16:25 21°504'52 retrograde -2011 Jun 20 j 18:58 direct -2005 Jun 27 j 16:27 opposition -2011 Aug 19 j 20:07 9°**≈**05'43 -1°-47'-4 $0^{\circ}\Omega$ 8°**Ω**49'21 min. Earth dist. -2011 Aug 18 j 20:39 9°**≈**13'37 3.98463 AU evening set -2005 Aug 09 j 22:46 direct -2011 Oct 16 j 21:25 4°≈11'35 max. Earth dist. -2005 Aug 21 j 08:44 11°**Ω**18'33 6.41803 AU -2010 Jan 11 j 18:51 15°≈ evening set -2010 Feb 18 j 23:53 23°≈40'48 conjunction -2005 Aug 22 j 20:39 11° Ω38'11 1°13'27 -2005 Aug 22 j 20:37 11°**Ω**38'10 minimum elong 1°13'29 -2005 Sep 04 j 15:37 14°**Q**25'35 conjunction -2010 Mar 04 j 10:18 26°≈52'41 -1°-16'-13 morning rise minimum elong -2010 Mar 04 j 10:18 26°≈52'41 1°16'14 -2005 Sep 07 j 07:08 15°**Ω** max. Earth dist. -2010 Mar 06 j 08:01 27°≈19'55 5.99673 AU -2005 Dec 04 j 07:49 morning rise -2010 Mar 17 j 23:46 0°**)**6'04 retrograde -2004 Jan 02 j 22:22 1° m/20'55 -2010 Mar 17 j 13:30 0°**)**€ -2004 Feb 01 j 14:12 30°R**Ω** retrograde -2010 Jul 27 j 15:40 20°**∺**23'07 opposition -2004 Mar 03 j 11:31 26° **Ω**28'54 1°52'27 min. Earth dist. -2010 Sep 23 j 22:53 15°\(\mathbf{X}\)28'56 4.02985 AU min. Earth dist. -2004 Mar 04 j 17:23 $26^{\circ}\Omega$ 19'20 4.40578 AU opposition -2010 Sep 25 j 07:03 15°**升** 17'58 -1°-50'-15 direct -2004 May 05 j 05:35 $21^{\circ}\Omega$ 27'11 direct -2010 Nov 22 j 07:15 10° **)** 21'04 -2004 Jul 25 j 21:11 0° m evening set -2009 Mar 28 i 06:15 29° + 36'58 evening set -2004 Sep 08 j 21:03 9° m 15'05 -2009 Mar 29 j 22:00 $0^{\circ}\Upsilon$ max. Earth dist. -2004 Sep 19 j 15:39 11° m 37'55 6.37566 AU -2009 Apr 10 j 22:51 2°Υ48'01 -1°-4'-20 conjunction -2004 Sep 21 i 12:58 12° mp 03'01 1°15'52 conjunction -2009 Apr 10 j 22:54 2°Y48'03 1°04'21 -2004 Sep 21 j 12:58 12° m 03'02 minimum elong minimum elong 1°15'53 max. Earth dist. -2009 Apr 13 j 00:28 3°**Y**16′54 -2004 Oct 04 j 02:28 14° mp 49'58 6.07604 AU morning rise -2009 Apr 24 j 17:28 5°**Y**59'49 -2004 Dec 27 j 00:51 0∘**⊽** morning rise -2009 Aug 31 j 12:35 25°**Y**26'18 -2003 Feb 02 j 17:25 retrograde 2°**₽**08'36 retrograde -2009 Oct 28 j 20:22 20°**Υ**31'27 4.13397 AU -2003 Mar 12 j 21:29 30°R M min. Earth dist. -2009 Oct 30 j 00:55 20° Y21'42 -1° -12'-41 -2003 Apr 04 j 15:24 27° m 16'57 1°40'48 opposition opposition -2003 Apr 06 j 00:26 27° M 06'27 -2009 Dec 27 j 21:00 15° Y 21'35 min. Earth dist. 4.33412 AU direct -2003 Jun 06 j 00:29 22° Mp 17'40 -2008 Apr 13 j 20:25 direct 0°8 -2008 May 02 j 14:35 4°**8**09'14 -2003 Aug 21 j 02:07 0°**♀** evening set -2003 Oct 09 j 22:07 10° **2**21'37 evening set -2008 May 16 j 09:16 7°**8**15'53 0°-29'-50 conjunction max. Earth dist. -2003 Oct 20 j 16:37 12°**Ω**47'54 6.28022 AU -2008 May 16 j 09:18 minimum elong 7°**8**15'54 0°29'50 max. Earth dist. -2008 May 17 j 22:26 7°**8**36'54 6.19660 AU conjunction -2003 Oct 22 j 11:53 13°**£**12'28 0°56'36 morning rise -2008 May 30 j 03:34 10°**8**22'08 minimum elong -2003 Oct 22 j 11:55 13°**£**12'30 0°56'35 -2008 Jun 20 j 05:10 15°**8** -2003 Nov 04 j 00:46 16°**♀**03'06 morning rise retrograde -2008 Oct 02 j 09:01 28°844'21 -2002 Jan 14 j 02:19 0°M -2008 Nov 30 j 22:12 23°842'49 0°-12'-41 -2002 Mar 08 j 10:15 4°ML08'01 opposition retrograde min. Earth dist. -2008 Nov 30 j 06:15 23°**8**48'11 4.25823 AU -2002 May 02 j 12:24 30°R ₽ -2007 Jan 30 j 01:00 18°**8**40'22 -2002 May 08 j 10:01 29°**£**15'01 0°58'36 direct opposition -2007 Feb 18 j 06:35 19°815'24 -2002 May 09 j 13:58 29° **2**06'06 4.22011 AU asc. node min. Earth dist. -2002 Jul 08 i 20:54 24° **△**18'31 -2007 May 04 j 10:33 $\Pi^{\circ}0$ direct evening set -2007 Jun 06 i 07:59 6°**Ⅱ**57'39 -2002 Sep 09 i 22:36 evening set -2002 Nov 10 j 22:23 12°M 48'19 conjunction -2007 Jun 19 j 22:32 9°**I**57'36 0°13'07 -2002 Nov 20 i 08:53 15°M -2007 Jun 19 j 22:31 9°II57'35 0°13'10 max. Earth dist. -2002 Nov 22 j 09:27 15°M28'20 6.15786 AU minimum elong -2007 Jun 19 j 17:48 9°**Ⅱ**55'00 behind sun begin -2007 Jun 20 j 03:14 10°**Ⅲ**00'10 -2002 Nov 23 j 14:15 15°ML45'07 0°19'17 behind sun end conjunction max. Earth dist. -2007 Jun 20 j 09:24 10°**Д**03'35 6.31526 AU -2002 Nov 23 j 14:16 15°M 45'08 minimum elong 0°19'16 morning rise -2007 Jul 03 j 11:08 12°**Ⅲ**56'20 morning rise -2002 Dec 06 j 06:53 18°M42'34 -2007 Oct 17 j 13:48 0.00 -2001 Jan 27 j 23:54 0°×7 retrograde -2007 Nov 02 j 14:49 0°925'02 retrograde -2001 Apr 13 j 02:16 7°**х** 47'46 -2007 Nov 18 j 14:16 30°RⅡ -2001 May 13 j 05:51 6°**х** 24′27 desc. node -2006 Jan 01 j 10:20 25°**Ⅲ**27'25 0°48'03 -2001 Jun 12 j 23:19 2°**₹**51'51 0°-5'-15 opposition opposition -2006 Jan 01 j 11:20 25°**Ⅲ**27'05 -2001 Jun 13 j 10:30 2°**∡**′48'14 4.09792 AU min. Earth dist. 4.36195 AU min. Earth dist. -2006 Mar 03 j 20:33 20°**Ⅲ**23'54 -2001 Jul 06 j 15:23 30°RML direct -2001 Aug 11 j 23:58 27° M 57'48 -2006 May 29 j 21:13 0ಂತಾ direct evening set -2006 Jul 09 j 07:38 8°9518'37 -2001 Sep 16 j 21:36 0°**∡** evening set -2001 Dec 14 j 15:22 16° ₹ 57'13 conjunction -2006 Jul 22 j 14:17 11°5511'56 0°50'44

minimum elong

max. Earth dist.

morning rise

-2006 Jul 22 j 14:14 11°5511'55

-2006 Jul 22 j 00:10 11°504'14

-2006 Aug 04 j 17:40 14°503'38

0°50'47

6.39617 AU

conjunction

minimum elong

max. Earth dist.

-2001 Dec 27 j 12:13 20° ₹00'56

-2001 Dec 27 j 12:11 20° ₹ 00'55

-2001 Dec 27 j 09:36 19° ₹ 59'23 6.04726 AU

0°-25'-59

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -2000 in astronomical counting style is the year 2001 BCE in historical counting style. -2000 Jan 09 i 11:19 23° ₹ 06'03 retrograde -1995 Nov 06 i 22:04 4°951'00 morning rise -2000 Feb 08 j 13:17 -1994 Jan 05 j 18:11 29°**Д**54'01 0°55'35 0°る opposition retrograde -2000 May 19 j 10:04 13°る07'36 -1994 Jan 05 j 00:01 30°R II -2000 Jul 18 j 21:24 -1994 Jan 05 j 21:45 29° **I** 52'50 4.37238 AU opposition 8°る07'47 -1°-10'-30 min. Earth dist. -2000 Jul 18 j 12:49 -1994 Mar 08 j 08:08 24°**Д**50'33 min. Earth dist. 8°る10'37 4.00953 AU direct -1994 May 08 j 16:52 direct -2000 Sep 15 j 15:29 3°る14'38 0ಂಪ -1999 Jan 18 j 06:33 22°**⋜**36'57 -1994 Jul 13 j 19:09 12°543'22 evening set evening set max. Earth dist. -1994 Jul 26 j 05:26 15°525'34 6.40186 AU conjunction -1999 Jan 31 j 10:20 25°♂46'17 -1°-3'-1 minimum elong -1999 Jan 31 j 10:17 25° ₹ 46'15 1°03'05 conjunction -1994 Jul 27 j 00:27 15°535'56 0°54'58 -1994 Jul 27 j 00:25 15°535'54 max. Earth dist. -1999 Feb 01 j 13:22 26°**⋜**02'31 5.98885 AU minimum elong 0°55'01 -1999 Feb 13 j 17:17 28° **정**57'21 -1994 Aug 09 j 02:44 18°526'56 morning rise morning rise -1994 Oct 07 j 03:27 -1999 Feb 18 j 02:44 0°≈ $0^{\circ}\Omega$ -1999 May 02 j 14:44 retrograde -1994 Dec 07 j 10:37 5°**Ω**23'55 retrograde -1999 Jun 26 j 02:24 19°≈25'59 opposition -1993 Feb 05 j 15:53 0°**£**30′13 1°37'35 -1999 Aug 20 j 10:37 15°R≈ min. Earth dist. -1993 Feb 06 j 11:29 0°**Ω**23'52 4.41682 AU min. Earth dist. -1999 Aug 24 j 00:16 14°≈31'14 3.98915 AU -1993 Feb 09 j 13:16 30°Rூ opposition -1999 Aug 25 j 02:05 14°≈22'32 -1°-50'-15 direct -1993 Apr 09 j 02:36 25°527'12 direct -1999 Oct 22 j 01:38 9°**≈**28'07 -1993 Jun 05 j 19:48 0 $^{\circ}\Omega$ -1999 Dec 20 j 14:49 15°≈ evening set -1993 Aug 14 j 07:24 $13^{\circ}\Omega$ 12'02 evening set -1998 Feb 24 j 06:40 28°≈55'36 -1993 Aug 22 j 13:36 15°**Ω** -1998 Feb 28 i 19:27 0°**∀** max. Earth dist. -1993 Aug 25 j 15:44 15° Ω 40'33 6.41402 AU conjunction -1998 Mar 09 j 17:55 2°**)**(07'24 -1°-16'-16 conjunction -1993 Aug 27 i 04:26 $16^{\circ}\Omega$ 00'38 $1^{\circ}15'05$ -1998 Mar 09 i 17:55 2°\cdot\07'24 1°16'18 minimum elong -1993 Aug 27 j 04:24 16°**Ω**00'37 1°15'05 minimum elong -1998 Mar 11 j 16:12 2° **\(\)** 34'54 6.00685 AU -1993 Sep $08 \text{ j } 22:16 \quad 18^{\circ} \Omega 47'47$ max. Earth dist. morning rise -1998 Mar 23 j 08:21 5°**)** € 20'42 -1993 Nov 04 j 14:17 morning rise 0°m -1998 Aug 01 j 15:16 25°**)** 31'25 -1992 Jan 07 j 06:59 5° m 45'30 retrograde retrograde -1998 Sep 28 j 22:49 20° **€** 37'12 4.04438 AU -1992 Mar 07 j 22:06 min. Earth dist. opposition 0° m 53'43 1°52'44 -1998 Sep 30 j 07:12 20°**)** 26'08 -1°-47'-5 min. Earth dist. -1992 Mar 09 j 04:19 0° m/44'04 4.39731 AU opposition -1998 Nov 27 j 09:33 15°**∺**28'47 -1992 Mar 14 j 23:05 30°RΩ direct -1997 Mar 12 j 19:44 0°**Υ** -1992 May 09 j 14:56 25°**Q**52'22 direct -1997 Apr 02 j 10:17 4°Υ40'21 -1992 Jul 03 j 06:28 0° M evening set -1992 Sep 13 j 05:42 13° mp 42'34 evening set 7°**Υ**50'52 -1°00'-33 -1997 Apr 16 j 03:35 -1992 Sep 23 j 22:34 16° M 04'57 conjunction max. Earth dist. 6.36338 AU -1997 Apr 16 j 03:38 7°Υ50'54 1°00'33 minimum elong -1997 Apr 18 j 05:20 8°**Y**19'42 6.09383 AU -1992 Sep 25 j 20:56 16° m 30'45 1°14'25 max. Earth dist. conjunction morning rise -1997 Apr 29 j 22:18 11°**Υ**01'56 minimum elong -1992 Sep 25 j 20:58 16° mp 30'46 1°14'25 -1997 Aug 22 j 10:48 0° 8 morning rise -1992 Oct 08 j 10:14 19° Mp 18'04 retrograde -1997 Sep 05 j 06:22 0°**8**18'53 -1992 Nov 30 j 00:01 0∘<u>ଫ</u> -1997 Sep 18 j 22:59 30°R**Y** retrograde -1991 Feb 07 j 10:17 6°**£**42'32 -1997 Nov 03 j 17:57 25°**Y**14'41 -1°-5'-5 -1991 Apr 09 j 07:33 1°**2**50'52 1°36'34 opposition opposition min. Earth dist. -1997 Nov 02 j 15:11 25°**Υ**23'47 4.15304 AU min. Earth dist. -1991 Apr 10 j 17:02 1°**2**40'13 4.31880 AU -1996 Jan 01 j 18:11 20°**Y**14'14 -1991 Apr 24 j 04:33 30°R M direct -1996 Mar 26 j 13:16 0°**8** direct -1991 Jun 10 j 14:57 26° m 52'00 -1991 Jul 27 i 05:21 0°**♀** evening set -1996 May 07 j 13:23 8°**8**56'54 evening set -1991 Oct 14 i 09:01 14° **2**59'29 -1996 May 21 j 07:41 12°802'37 0°-24'00 conjunction max. Earth dist. -1991 Oct 25 j 05:31 17° **2**27'27 6.26339 AU -1996 May 21 j 07:43 12°802'38 0°23'59 minimum elong max. Earth dist. -1996 May 22 j 16:34 12°**8**21'07 6.21544 AU -1991 Oct 26 j 22:58 17° **2**51'05 0°52'15 conjunction -1996 Jun 03 j 11:32 15°8 -1991 Oct 26 j 23:00 17°**£**51'06 minimum elong 0°52'13 -1996 Jun 04 j 01:36 15°**8**07'52 -1991 Nov 08 j 12:07 20°**£**42'32 morning rise morning rise -1996 Aug 20 j 22:14 -1991 Dec 21 j 23:58 0°M 0°π retrograde -1996 Oct 06 j 18:39 3°**Ⅲ**21'21 retrograde -1990 Mar 13 j 07:44 8°M55'27 -1996 Nov 22 j 18:55 30°R opposition -1990 May 13 j 08:17 4°M₀02'08 0°50'31 -1996 Dec 05 j 09:07 28°**8**20'22 0°-3'-48 opposition min. Earth dist. -1990 May 14 j 09:10 3°M54'11 4.20307 AU min. Earth dist. -1996 Dec 04 j 19:22 28°**8**24'59 4.27531 AU -1990 Jun 19 j 11:17 30°R € -1996 Dec 29 j 06:58 25°**8**21'05 -1990 Jul 13 j 13:34 29°**೨**06'07 asc. node direct -1995 Feb 03 j 16:25 23°**8**17'41 -1990 Aug 06 j 15:05 direct 0° M -1990 Nov 04 j 00:20 15°M -1995 Apr 14 j 13:03 Π $^{\circ}0$ -1995 Jun 11 j 00:32 11°**Ⅲ**31'13 -1990 Nov 15 j 14:16 17° M 39'42 evening set evening set max. Earth dist. -1990 Nov 27 j 05:38 20°M22'46 6.14228 AU conjunction -1995 Jun 24 j 14:15 14°**Ⅲ**30'12 0°18'57 minimum elong -1995 Jun 24 j 14:14 14°**Ⅲ**30'11 0°18'58 conjunction -1990 Nov 28 j 06:35 20°M37'22 0°13'04 max. Earth dist. -1995 Jun 24 j 21:52 14°**Ⅲ**34'23 6.32949 AU minimum elong -1990 Nov 28 j 06:36 20°M37'23 0°13'02 -1995 Jul 08 j 01:35 17°**Ⅲ**27'52 behind sun begin -1990 Nov 28 j 01:38 20°M34'29 morning rise

behind sun end

-1990 Nov 28 j 11:33 20°M40'16

-1995 Sep 10 j 09:30

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -1990 in astronomical counting style is the year 1991 BCE in historical counting style. -1990 Dec 10 j 23:56 23°M 35'47 retrograde -1984 Oct 11 i 05:02 7°**I**53'45 morning rise -1989 Jan 08 j 08:33 -1984 Nov 09 j 05:17 6°**Ⅲ**31'51 0°×7 asc. node -1989 Mar 22 j 22:21 11° ₹ 44'27 opposition -1984 Dec 09 j 18:33 2°**Ⅱ**53'19 desc. node 0°04'52 retrograde -1989 Apr 18 j 06:57 12°**х** 48′53 min. Earth dist. -1984 Dec 09 j 07:51 2°**П**56'55 4.28852 AU -1989 Jun 18 j 02:42 7°**∡**¹52'26 0°-14'-56 -1983 Jan 01 j 19:17 30°R8 opposition -1989 Jun 18 j 11:33 -1983 Feb 08 j 06:35 27°**8**50'28 min. Earth dist. 7°**∡**¹49'33 4.08504 AU direct direct -1989 Aug 16 j 23:51 2°**х** 58'37 -1983 Mar 18 j 04:20 $0^{\circ}\Pi$ -1983 Jun 15 j 15:36 evening set -1989 Dec 19 j 12:54 22°**₹**00'47 evening set 16°**Ⅲ**01′23 0°24'33 conjunction -1988 Jan 01 j 10:36 25° ₹ 05'16 0°-32'-3 conjunction -1983 Jun 29 j 04:20 18°**Ⅲ**59'33 minimum elong -1988 Jan 01 j 10:33 25°**尽** 05'14 0°32'06 minimum elong -1983 Jun 29 j 04:18 18°**Ⅲ**59'32 0°24'36 -1988 Jan 01 j 12:34 25°**✗** 06'26 -1983 Jun 29 j 07:52 19°**Ⅲ**01'29 max. Earth dist. 6.03831 AU max. Earth dist. 6.33965 AU -1988 Jan 14 j 10:41 28° ₹ 11'11 -1983 Jul 12 j 14:37 morning rise morning rise 21°**I**I56′21 -1988 Jan 22 j 03:17 -1983 Aug 20 j 09:23 0ಂತ retrograde -1988 May 24 j 15:56 18°**궁**17'14 retrograde -1983 Nov 11 j 04:09 9°9515'20 opposition -1988 Jul 24 j 02:16 13°쥥16'52 -1°-18'-4 opposition -1982 Jan 10 j 01:36 4°9518'50 1°02'41 min. Earth dist. -1988 Jul 23 j 14:31 13°**궁**20'46 4.00572 AU min. Earth dist. -1982 Jan 10 j 07:07 4°917'01 4.37918 AU direct -1988 Sep 20 j 16:46 8°**る**23'41 -1982 Feb 18 j 18:09 30°R II evening set -1987 Jan 23 j 08:35 27°る46'28 direct -1982 Mar 12 j 18:04 29°**Ⅲ**15'20 -1987 Feb 01 j 15:42 -1982 Apr 04 j 00:43 evening set -1982 Jul 18 j 06:19 17°507'15 conjunction -1987 Feb 05 i 13:11 0°≈56'06 -1°-6'-31 minimum elong -1987 Feb 05 i 13:08 0°≈56'04 1°06'34 conjunction -1982 Jul 31 i 10:30 19°559'13 0°58'50 max. Earth dist. -1987 Feb 06 i 18:31 1°≈13'42 5.99013 AU minimum elong -1982 Jul 31 j 10:28 19°559'11 0°58'52 -1982 Jul 30 j 13:38 19°547'50 morning rise -1987 Feb 18 j 21:12 4°≈07'31 max. Earth dist. 6.40486 AU -1987 Apr 08 j 16:02 15°≈ -1982 Aug 13 j 11:27 22°5549'34 morning rise -1987 Jul 01 j 04:36 24°≈35'00 -1982 Sep 16 j 23:52 retrograde $0^{\circ}\Omega$ -1987 Aug 29 j 00:46 19°≈40'21 3.99547 AU -1982 Dec 11 j 17:54 9°**Ω**45'46 min. Earth dist. retrograde -1987 Aug 30 j 04:08 19°≈31'06 -1°-52'-26 -1981 Feb 10 j 00:06 opposition opposition 4°Ω52'27 1°41'25 -1987 Oct 12 j 00:53 15°R≈ min. Earth dist. -1981 Feb 10 j 21:19 4°**Ω**45'36 4.41611 AU -1987 Oct 27 j 03:19 14°≈36'17 -1981 Apr 02 j 19:23 30°RS direct -1987 Nov 11 j 06:43 15°≈ -1981 Apr 13 j 12:23 29°549'38 direct -1981 Apr 24 j 06:13 0°**Ω** -1986 Feb 12 j 02:05 0°**₩** -1986 Mar 01 j 09:44 4°**)**€01'35 -1981 Aug 06 j 16:01 15°**Ω** evening set -1981 Aug 18 j 16:13 17°**Ω**34'57 evening set -1986 Mar 14 j 22:03 7°**光**13'19 -1°-15'-44 max. Earth dist. -1981 Aug 29 j 20:39 20°**Ω**01'39 conjunction 6.40944 AU 7°**升**13′20 1°15′46 minimum elong -1986 Mar 14 j 22:04 max. Earth dist. -1986 Mar 16 j 22:45 7°**)** 42′10 6.01755 AU conjunction -1981 Aug 31 j 12:09 20°Ω23'18 1°16'15 morning rise -1986 Mar 28 j 13:04 10° **∺** 26'23 minimum elong -1981 Aug 31 j 12:08 20°**Ω**23'18 1°16'16 -1986 Jul 19 j 21:37 $0^{\circ}\Upsilon$ morning rise -1981 Sep 13 j 05:18 23°**Ω**10'18 retrograde -1986 Aug 06 j 13:04 0°Y30'33 -1981 Oct 15 j 18:24 -1986 Aug 23 j 23:45 30°R € -1980 Jan 11 j 18:09 10° m 10'30 retrograde min. Earth dist. -1986 Oct 03 j 20:02 25° ¥35'59 4.05824 AU -1980 Mar 12 j 09:37 5° mp 18'47 1°52'19 opposition -1986 Oct 05 j 03:21 25° **€** 25'18 -1°-43'-14 min. Earth dist. -1980 Mar 13 j 16:46 5° m 08'50 4.38929 AU opposition -1986 Dec 02 j 08:23 20° **€**27'30 -1980 May 14 j 02:11 0° My 17'42direct direct -1985 Feb 22 i 11:02 $0^{\circ}\Upsilon$ evening set -1980 Sep 17 i 13:57 18° m 09'34 evening set -1985 Apr 07 j 11:05 9°Y35'12 max. Earth dist. -1980 Sep 28 j 07:55 20° mg 32'54 6.35248 AU -1985 Apr 21 i 04:43 12°**Υ**'45'12 0°-56'-28 conjunction conjunction -1980 Sep 30 i 04:54 20° m 58'00 1°12'31 minimum elong -1985 Apr 21 i 04:46 12°Υ45'14 0°56'28 -1980 Sep 30 i 04:56 20° m 58'01 1°12'31 minimum elong -1985 Apr 23 j 03:54 13°**Υ**12'26 6.10955 AU -1980 Oct 12 i 17:44 23° m 45'37 max. Earth dist. morning rise -1985 May 04 j 23:48 15° Υ 55'41 -1980 Nov 10 j 18:39 morning rise 0∘∙ -1985 Jul 13 j 10:37 0°8 -1979 Feb 12 j 00:37 11°**£**15'19 retrograde retrograde -1985 Sep 09 j 19:15 5°804'00 opposition -1979 Apr 13 j 23:34 6°**2**23'30 1°31'44 6°**₽**13'17 min. Earth dist. -1985 Nov 07 j 05:59 0°**と**08'51 4.16906 AU min. Earth dist. -1979 Apr 15 j 07:43 4.30556 AU opposition -1985 Nov 08 j 07:38 0°**8**00'08 0°-57'-18 direct -1979 Jun 15 j 03:23 1°**£**25′03 -1985 Nov 08 j 08:00 30°R**Y** evening set -1979 Oct 18 j 19:32 19°**♀**35'11 -1984 Jan 06 j 11:17 24° Υ 59'16 max. Earth dist. -1979 Oct 29 j 17:01 22°**♀**04'16 direct 6.24873 AU -1984 Mar 04 j 18:43 0° 8 -1984 May 12 j 09:23 13°**8**38'12 -1979 Oct 31 j 09:26 22°**2**27'24 0°47'34 evening set conjunction -1984 May 18 j 11:40 15°**8** -1979 Oct 31 j 09:28 22°**£**27'25 0°47'34 minimum elong morning rise -1979 Nov 12 j 23:01 25°**2**19'37 conjunction -1984 May 26 j 03:27 16°**8**43'09 0°-18'-9 -1979 Dec 03 j 21:48 0°M minimum elong -1984 May 26 j 03:29 16°**8**43'10 0°18'08 retrograde -1978 Mar 18 j 06:01 13°M39'51 max. Earth dist. -1984 May 27 j 08:48 16°**8**59'37 6.23073 AU opposition -1978 May 18 j 05:41 8°M46'09 0°42'08 -1984 Jun 08 j 20:44 19°**8**47'29 min. Earth dist. -1978 May 19 j 05:18 8°M38'35 4.18763 AU morning rise -1984 Jul 28 j 00:36 -1978 Jul 18 j 07:39 3°M50'26 direct

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 38 Attention, astronomical year style is used: The year -1978 in astronomical counting style is the year 1979 BCE in historical counting style.

Attention, astronom	nical year style is used: The	he year -1978	in astronomical co	ounting style is the year	1979 BCE in historical of	counting style	
	-1978 Oct 17 j 20:00	15°M		conjunction	-1972 May 31 j 01:44		
evening set	-1978 Nov 20 j 04:56	22°M27'27		minimum elong	-1972 May 31 j 01:45		0°12'02
				behind sun begin	-1972 May 30 j 20:12		
conjunction	-1978 Dec 02 j 21:56		0°06'49	behind sun end	-1972 May 31 j 07:19		
minimum elong	-1978 Dec 02 j 21:57		0°06'46	max. Earth dist.	-1972 Jun 01 j 04:49		6.24540 AU
behind sun begin	-1978 Dec 02 j 14:28			morning rise	-1972 Jun 13 j 18:20		
behind sun end	-1978 Dec 03 j 05:27		C 10511 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		-1972 Jul 08 j 20:59	0°II	
max. Earth dist.	-1978 Dec 02 j 00:31		6.12744 AU	asc. node	-1972 Sep 18 j 12:09		
morning rise	-1978 Dec 15 j 16:02			retrograde	-1972 Oct 15 j 15:11		0012145
JJ.	-1978 Dec 22 j 10:55	0°×7		opposition	-1972 Dec 14 j 06:19	7° Ⅱ 33'10 7° Ⅱ 36'24	0°13'45
desc. node	-1977 Jan 31 j 00:49 -1977 Apr 23 j 09:18	8° ⋌ ³34'28 17° ⋌ ³46'13		min. Earth dist. direct	-1972 Dec 13 j 20:39	7°Щ36°24 2°Щ30'12	4.30238 AU
retrograde opposition	-1977 Jun 23 j 04:39		0°-24'-28	evening set	-1971 Feb 12 j 21:16 -1971 Jun 20 j 09:03		
min. Earth dist.	-1977 Jun 23 j 10:38		4.07210 AU	evening set	-19/1 Juli 20 j 09.03	20 11 36 11	
direct	-1977 Aug 21 j 20:47	7° × 755'44	4.07210 AC	conjunction	-1971 Jul 03 j 20:39	23°π35'23	0°30'10
evening set	-1977 Dec 24 j 09:35			minimum elong	-1971 Jul 03 j 20:37		0°30'13
e venning see	-1976 Jan 05 j 21:19	0°ਰ		max. Earth dist.	-1971 Jul 03 j 20:56		6.35203 AU
	->,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			morning rise	-1971 Jul 17 j 05:43		
conjunction	-1976 Jan 06 j 08:00	0° る 06'23	0°-37'-52	5 6 44	-1971 Aug 02 j 10:27	0ಂತಾ	
minimum elong	-1976 Jan 06 j 07:58	0° ට 06'22	0°37'55	retrograde	-1971 Nov 15 j 13:36		
max. Earth dist.	-1976 Jan 06 j 12:41	0° ට 09'11	6.02826 AU	opposition	-1970 Jan 14 j 11:18	8°5649'15	1°09'33
morning rise	-1976 Jan 19 j 09:12	3° ට 13'13		min. Earth dist.	-1970 Jan 14 j 19:15	8°9546'39	4.38950 AU
retrograde	-1976 May 29 j 20:57	23° る 24'35		direct	-1970 Mar 17 j 07:59	3°545'51	
opposition	-1976 Jul 29 j 06:06	18° る 23'39	-1°-25'-5	evening set	-1970 Jul 22 j 18:25	21°535'14	
min. Earth dist.	-1976 Jul 28 j 15:47	18° る 28'25	3.99966 AU				
direct	-1976 Sep 25 j 17:43	13° る 30'20		conjunction	-1970 Aug 04 j 21:20	24°9526'23	1°02'26
	-1975 Jan 16 j 02:27	0° ≈		minimum elong	-1970 Aug 04 j 21:17	24° © 26'22	1°02'27
evening set	-1975 Jan 28 j 10:32	2° ≈ 54'54		max. Earth dist.	-1970 Aug 03 j 21:59	24°513'40	6.41236 AU
				morning rise	-1970 Aug 17 j 21:01	27°©15'56	
conjunction	-1975 Feb 10 j 16:22	6° ≈ 05'06	-1°-9'-31		-1970 Aug 30 j 15:14	0 \circ Ω	
minimum elong	-1975 Feb 10 j 16:20	6° ≈ 05'05	1°09'33	retrograde	-1970 Dec 16 j 00:52	14° Ω 09'54	
max. Earth dist.	-1975 Feb 12 j 02:09	6° ≈ 25'22	5.98858 AU	opposition	-1969 Feb 14 j 09:15	9° Ω 16'50	1°44'40
morning rise	-1975 Feb 24 j 01:19	9° ≈ 17'01		min. Earth dist.	-1969 Feb 15 j 07:17	9° Ω 09'43	4.42063 AU
	-1975 Mar 20 j 16:03			direct	-1969 Apr 17 j 22:54	4° Ω 14'12	
retrograde	-1975 Jul 06 j 09:09				-1969 Jul 20 j 15:07		
min. Earth dist.	-1975 Sep 03 j 02:23		3.99874 AU	evening set	-1969 Aug 23 j 00:19		C 410C4 177
opposition	-1975 Sep 04 j 06:08		-1°-53'-48	max. Earth dist.	-1969 Sep 03 j 03:52	24° 3 (24'09	6.41064 AU
direct	-1975 Nov 01 j 04:53				10/0 0 04:10.10	240 0 45147	101650
	-1974 Jan 24 j 17:22			conjunction	-1969 Sep 04 j 19:18		
evening set	-1974 Mar 06 j 14:10	9° ∺ 09'44		minimum elong morning rise	-1969 Sep 04 j 19:18 -1969 Sep 17 j 11:22		1-1/01
conjunction	-1974 Mar 20 j 03:20	12°¥21'33	-1°-14'-38	morning rise	-1969 Sep 28 j 20:39	0°m	
minimum elong	-1974 Mar 20 j 03:20		1°14'39	retrograde	-1968 Jan 16 j 02:24	14° m 33'09	
max. Earth dist.	-1974 Mar 22 j 04:02		6.02507 AU	opposition	-1968 Mar 16 j 19:54	9° m) 41'31	1°51'14
morning rise	-1974 Apr 02 j 19:24		0.02307110	min. Earth dist.	-1968 Mar 18 j 03:42	9° m/31'23	4.38700 AU
morning not	-1974 Jun 11 j 02:41	0°Υ		direct	-1968 May 18 j 12:31	4° Mp 40'46	
retrograde	-1974 Aug 11 j 10:30	5° Υ 33'25		evening set	-1968 Sep 21 j 20:12		
min. Earth dist.	-1974 Oct 08 j 16:50	0° Υ 39'04	4.06917 AU	max. Earth dist.	-1968 Oct 02 j 12:02	-	6.34675 AU
opposition	-1974 Oct 10 j 00:37	0° Υ 28'12	-1°-38'-36		,	*	
	-1974 Oct 13 j 11:24			conjunction	-1968 Oct 04 j 10:31	25° m 20'42	1°10'14
direct	-1974 Dec 07 j 07:00	25° ∺ 29'58		minimum elong	-1968 Oct 04 j 10:33		1°10'13
	-1973 Jan 30 j 06:39	0° Υ		morning rise	-1968 Oct 16 j 23:15	28° Mp 08'29	
evening set	-1973 Apr 12 j 13:48	14° Y 35'04			-1968 Oct 25 j 09:09	0∘ ত	
				retrograde	-1967 Feb 16 j 13:26	15° ≏ 41'51	
conjunction	-1973 Apr 26 j 07:56	17° Ƴ 44'42	0°-51'-53	opposition	-1967 Apr 18 j 12:54	10° ≏ 49'48	1°26'25
minimum elong	-1973 Apr 26 j 08:00	17° Ƴ 44'44	0°51'54	min. Earth dist.	-1967 Apr 19 j 20:55	10° ≏ 39'37	4.29645 AU
max. Earth dist.	-1973 Apr 28 j 05:22	18° Ƴ 10′50	6.12307 AU	direct	-1967 Jun 19 j 15:02	5° £ 51'37	
morning rise	-1973 May 10 j 03:08			evening set	-1967 Oct 23 j 02:24		
	-1973 Jun 21 j 03:35	0° 8		max. Earth dist.	-1967 Nov 03 j 02:26	26° £ 33'58	6.23714 AU
retrograde	-1973 Sep 14 j 13:06	9° 8 55'14					
opposition	-1973 Nov 12 j 23:48	4° 8 51'47	0°-48'-59	conjunction	-1967 Nov 04 j 16:36		0°42'45
min. Earth dist.	-1973 Nov 12 j 00:36	4° 8 59'40	4.18360 AU	minimum elong	-1967 Nov 04 j 16:39		0°42'44
T	-1972 Jan 01 j 14:56			morning rise	-1967 Nov 17 j 06:23		
direct	-1972 Jan 11 j 08:08	29° Y 50'37			-1967 Nov 18 j 02:13	0°M 15°m	
	-1972 Jan 21 j 01:41	0°B			-1966 Feb 04 j 00:11		
avaning sat	-1972 May 01 j 16:31			retrograde	-1966 Mar 22 j 22:49		
evening set	-1972 May 17 j 07:59	10 02013			-1966 May 09 j 20:30	13 KIIV	

-	ical year style is used: Th		•	· · · · · · · · · · · · · · · · · · ·		, .	ige 39
opposition	-1966 May 22 j 23:11	-		evening set	-1960 May 22 j 06:24		
		13°M14'06		evening set	-1900 May 22 J 00.24	23 01237	
min. Earth dist.	, ,		4.17412 AU	-	10(0 I 04:22.20	200 1554	0°-5'-52
direct	-1966 Jul 22 j 21:02	8°M25'50		conjunction	-1960 Jun 04 j 23:30		
. ,	-1966 Sep 28 j 13:45			minimum elong	-1960 Jun 04 j 23:30		0°05'52
evening set	-1966 Nov 24 j 16:07	2/*11605.53		behind sun begin	-1960 Jun 04 j 15:35		
	10((D 07:00.22	00 705116	0000141	behind sun end	-1960 Jun 05 j 07:26		(2(002 AII
conjunction	-1966 Dec 07 j 09:33	0° ₹ 05'16 0° ₹ 05'16	0°00'41	max. Earth dist.	-1960 Jun 05 j 22:46		6.26083 AU
minimum elong	-1966 Dec 07 j 09:33		0°00'38	morning rise	-1960 Jun 18 j 15:25		
behind sun begin	-1966 Dec 07 j 01:31	0° √ 00'34		,	-1960 Jun 21 j 18:53	0°II	
behind sun end	-1966 Dec 07 j 17:34	0° √ 09'58	C 11210 ATT	asc. node	-1960 Jul 28 j 12:49	7° I I42'07	
max. Earth dist.	-1966 Dec 06 j 13:12	29°M53'17	6.11319 AU	retrograde	-1960 Oct 20 j 02:39	17° I I10'00	0000121
	-1966 Dec 07 j 00:34	0° 🗷		opposition	-1960 Dec 18 j 17:52		0°22'31
desc. node	-1966 Dec 13 j 02:22	1° x ⁷ 25'49		min. Earth dist.	-1960 Dec 18 j 11:00		4.31712 AU
morning rise	-1966 Dec 20 j 04:33	3° ₹ 05'40		direct	-1959 Feb 17 j 14:07	7° I 107'27	
retrograde	-1965 Apr 28 j 07:59	22° x ⁷ 34'11	00 221 21	evening set	-1959 Jun 25 j 01:14	25°Щ11′52	
opposition	-1965 Jun 28 j 02:20	17° ∡ 736'44	0°-33'-31		1050 1 1 00 11 10	2001100107	0025124
min. Earth dist.	-1965 Jun 28 j 06:08	17° ∡ ³35'30	4.05820 AU	conjunction	-1959 Jul 08 j 11:49		0°35'34
direct	-1965 Aug 26 j 14:29	12° ∡ ¹43'12		minimum elong	-1959 Jul 08 j 11:46		0°35'37
	-1965 Dec 21 j 04:39	0°る		max. Earth dist.	-1959 Jul 08 j 09:56		6.36458 AU
evening set	-1965 Dec 29 j 03:06	1° る 52'41			-1959 Jul 17 j 00:13	0.20	
				morning rise	-1959 Jul 21 j 19:27	1° © 02'49	
conjunction	-1964 Jan 11 j 02:39	4° る 58'55	0°-43'-13	retrograde	-1959 Nov 19 j 19:40	18°9512'00	
minimum elong	-1964 Jan 11 j 02:36	4° ろ 58'53	0°43'17	opposition	-1958 Jan 18 j 20:00		1°16'01
max. Earth dist.	-1964 Jan 11 j 11:34	5° る 04'16	6.01615 AU	min. Earth dist.	-1958 Jan 19 j 05:08		4.39893 AU
morning rise	-1964 Jan 24 j 04:47	8° る 06'44		direct	-1958 Mar 21 j 19:05	8° © 13'05	
retrograde	-1964 Jun 04 j 00:40	28° る 24'06		evening set	-1958 Jul 27 j 05:34		
opposition	-1964 Aug 03 j 06:34	23° る 22'44	-1°-31'-16	max. Earth dist.	-1958 Aug 08 j 04:41	28° © 36'21	6.41760 AU
min. Earth dist.	-1964 Aug 02 j 15:05	23° る 27'53	3.99081 AU				
direct	-1964 Sep 30 j 14:55	18° る 29'17		conjunction	-1958 Aug 09 j 07:07		1°05'40
	-1964 Dec 29 j 19:34	0° ≈		minimum elong	-1958 Aug 09 j 07:05	28° © 50'44	1°05'42
evening set	-1963 Feb 02 j 10:39	7° ≈ 57'04			-1958 Aug 14 j 14:11	$0^{\circ}\Omega$	
				morning rise	-1958 Aug 22 j 05:35	1° Ω 39'36	
conjunction	-1963 Feb 15 j 17:29	11° ≈ 07'59	-1°-11'-53		-1958 Nov 01 j 11:07		
minimum elong	-1963 Feb 15 j 17:27	11° ≈ 07'58	1°11'55	retrograde	-1958 Dec 20 j 08:58	18° Ω 32′23	
max. Earth dist.	-1963 Feb 17 j 04:33	11° ≈ 29′01	5.98363 AU		-1957 Feb 08 j 04:39		
morning rise	-1963 Mar 01 j 03:47	14° ≈ 20′40		opposition	-1957 Feb 18 j 18:06		1°47'24
	-1963 Mar 03 j 22:02	15° ≈		min. Earth dist.	-1957 Feb 19 j 18:43		4.42131 AU
	-1963 May 15 j 14:28	0° ∀		direct	-1957 Apr 22 j 10:05	8° Ω 37'13	
retrograde	-1963 Jul 11 j 10:09	4° ∺ 49'10			-1957 Jun 30 j 22:25		
	-1963 Sep 07 j 09:00	30° ₹ ≈		evening set	-1957 Aug 27 j 08:18	26° Ω 20'47	
min. Earth dist.	-1963 Sep 08 j 00:19	29° ≈ 54'48	3.99852 AU	max. Earth dist.	-1957 Sep 07 j 08:21	28° Ω 45′22	6.40638 AU
opposition	-1963 Sep 09 j 06:06	29° ≈ 44'42	-1°-54'-16				
direct	-1963 Nov 06 j 03:13	24° ≈ 49′11		conjunction	-1957 Sep 09 j 02:24	29° Ω 08′28	1°17'21
	-1962 Jan 02 j 16:58	0° ℋ		minimum elong	-1957 Sep 09 j 02:24	29° Ω 08'28	1°17'22
evening set	-1962 Mar 11 j 17:48	14°) 14′37			-1957 Sep 13 j 00:11	0° ™	
				morning rise	-1957 Sep 21 j 17:47	1°M 54'56	
conjunction	-1962 Mar 25 j 08:04	17°) €26'42	-1°-12'-55	retrograde	-1956 Jan 20 j 12:51	18° m 58'31	
minimum elong	-1962 Mar 25 j 08:06	17°) €26'43	1°12'56	opposition	-1956 Mar 21 j 07:38	14° Mp 06'54	1°49'36
max. Earth dist.	-1962 Mar 27 j 09:45	17° ¥ 56′00	6.02968 AU	min. Earth dist.	-1956 Mar 22 j 15:46	13° m 56'40	4.37810 AU
morning rise	-1962 Apr 08 j 00:52	20°) 39′56		direct	-1956 May 22 j 22:43	9° ₯ 06′28	
	-1962 May 20 j 02:26	0 ° Υ		evening set	-1956 Sep 26 j 04:03	26° ₩ 59'58	
retrograde	-1962 Aug 16 j 09:25	10° Ƴ 34'13		max. Earth dist.	-1956 Oct 06 j 20:58	29° m 23'28	6.33391 AU
opposition	-1962 Oct 14 j 21:18	5° Ƴ 29'04	-1°-33'-15				
min. Earth dist.	-1962 Oct 13 j 14:33	5° Ƴ 39'34	4.07792 AU	conjunction	-1956 Oct 08 j 18:11	29° m 48'49	1°07'32
direct	-1962 Dec 12 j 06:53	0° Ƴ 30′22		minimum elong	-1956 Oct 08 j 18:13	29° Mp 48'50	1°07'32
evening set	-1961 Apr 17 j 16:40	19° Ƴ 33'31			-1956 Oct 09 j 14:08	0∘ ত	
				morning rise	-1956 Oct 21 j 06:39	2° ≏ 37'03	
conjunction	-1961 May 01 j 11:17	22° Y ′42'49	0°-46'-55	retrograde	-1955 Feb 21 j 05:47	20° ≏ 16'47	
minimum elong	-1961 May 01 j 11:20	22° Ƴ 42'51	0°46'55	opposition	-1955 Apr 23 j 05:48	15° ≏ 24'37	1°20'30
max. Earth dist.	-1961 May 03 j 08:43	23° Y ′08'52	6.13539 AU	min. Earth dist.	-1955 Apr 24 j 13:41	15° ≏ 14'29	4.28030 AU
morning rise	-1961 May 15 j 06:33	25° Y ′52'13		direct	-1955 Jun 24 j 05:04	10° ≏ 26'52	
	-1961 Jun 02 j 17:47	9° 8		evening set	-1955 Oct 27 j 13:45	28° ≏ 42'12	
retrograde	-1961 Sep 19 j 04:05	14° 8 45'04			-1955 Nov 02 j 05:35	0° M	
opposition	-1961 Nov 17 j 15:28	9° 8 41'59	0°-40'-20	max. Earth dist.	-1955 Nov 07 j 14:11	1°M13'59	6.21902 AU
min. Earth dist.	-1961 Nov 16 j 16:31	9° 8 49'45	4.19810 AU				
direct	-1960 Jan 16 j 02:32	4° 8 40'29		conjunction	-1955 Nov 09 j 04:04	1°M35'48	0°37'29
	-1960 Apr 13 j 13:19	15° 8		minimum elong	-1955 Nov 09 j 04:07	1°M35'50	0°37'28

-	ical year style is used: Th		•	· · · · · · · · · · · · · · · · · · ·		, .	
morning rise	-1955 Nov 21 j 18:33	4°M29'41	uon ononnua vai	retrograde	-1949 Sep 23 j 16:45		•
morning not	-1954 Jan 10 j 02:22			ronogrado	-1949 Nov 18 j 03:10		
retrograde	-1954 Mar 27 j 22:16			min. Earth dist.	-1949 Nov 21 j 08:39		4.21900 AU
opposition	-1954 May 27 j 22:19	18°M10'43	0°24'41	opposition	-1949 Nov 22 j 05:06		0°-31'-39
min. Earth dist.	-1954 May 28 j 18:14	18°M04'19	4.15526 AU	direct	-1948 Jan 20 j 21:50	9° 8 25'00	0 31 37
mm. Earth dist.	-1954 Jun 23 j 21:08	15°RM	4.13320 AO	direct	-1948 Mar 23 j 08:29		
direct	-1954 Jul 27 j 15:31	13°M15'37		evening set	-1948 May 27 j 01:17		
uncet	-1954 Aug 30 j 01:24	15°M		evening set	-1948 Jun 05 j 17:14	0° Ⅱ	
desc. node	-1954 Oct 22 j 14:39	23°M34'48		asc. node	-1948 Jun 07 j 20:51	0° П 28'41	
desc. Hode	-1954 Nov 20 j 18:12	0° √		asc. nouc	-1946 Juli 0/ J 20.51	0 Д2041	
evening set	-1954 Nov 29 j 09:24	0 x 2° x 00'38		conjunction	-1948 Jun 09 j 17:49	0° ∏ 53'41	0°00'13
evening set	-1934 NOV 29 J 09.24	2 × 00 38		minimum elong	-1948 Jun 09 j 17:49	0° П 53'41	0°00'15
conjunction	-1954 Dec 12 j 03:46	5° ∡ '01'09	0°-5'-50	behind sun begin	-1948 Jun 09 j 09:34	0° П 49'07	0 00 13
minimum elong	-1954 Dec 12 j 03:44	5° ₹ 01'09	0°05'53	behind sun end	-1948 Jun 10 j 02:05	0° Д 58'15	
Č	-1954 Dec 11 j 20:03	3 x · 01 08 4° x ⁷ 56'37	0 03 33	max. Earth dist.	-1948 Jun 10 j 12:05	0 П 38 13 1° П 05'18	6.28037 AU
behind sun begin behind sun end	3	5° ⋌ 105'39			,	1 Д03 18 3°Д54'50	0.2803 / AU
	-1954 Dec 12 j 11:26		C 0054C ATT	morning rise	-1948 Jun 23 j 08:36		
max. Earth dist.	-1954 Dec 11 j 12:09	4° 🗷 51'56	6.09546 AU	retrograde	-1948 Oct 24 j 08:29		0020140
morning rise	-1954 Dec 24 j 23:33	8° ₹ 02'42		opposition	-1948 Dec 23 j 01:49	16° ∏ 39'22	0°30'48
retrograde	-1953 May 03 j 15:46	27° х 40'07	00 421 52	min. Earth dist.	-1948 Dec 22 j 20:46		4.33371 AU
opposition	-1953 Jul 03 j 07:07	22° х 42'12		direct	-1947 Feb 22 j 02:04		
min. Earth dist.	-1953 Jul 03 j 08:48	22° х 41'39	4.04339 AU	evening set	-1947 Jun 29 j 13:41		
direct	-1953 Aug 31 j 14:45	17° ∡ ¹48'53			-1947 Jul 01 j 08:44	0	
	-1953 Dec 03 j 14:48	0°る ろ					
evening set	-1952 Jan 03 j 03:49	7° る 02'34		conjunction	-1947 Jul 12 j 22:53	2° © 31'49	0°40'35
		_		minimum elong	-1947 Jul 12 j 22:51	2° © 31'48	0°40'37
conjunction	-1952 Jan 16 j 04:12	10° る 09'41	0°-48'-34	max. Earth dist.	-1947 Jul 12 j 15:24	2° © 27'44	6.37680 AU
minimum elong	-1952 Jan 16 j 04:09	10° ろ 09'39	0°48'38	morning rise	-1947 Jul 26 j 05:23	5° © 25'32	
max. Earth dist.	-1952 Jan 16 j 16:11	10° る 16'52	6.00560 AU	retrograde	-1947 Nov 24 j 01:01	22° © 30'31	
morning rise	-1952 Jan 29 j 07:39	13° る 18'30		opposition	-1946 Jan 23 j 01:56		1°21'50
	-1952 Apr 20 j 22:08	0° ≈		min. Earth dist.	-1946 Jan 23 j 14:41		4.40610 AU
retrograde	-1952 Jun 09 j 07:40	3° ≈ 40'45		direct	-1946 Mar 26 j 05:17		
	-1952 Jul 29 j 07:26	30°Ŗる			-1946 Jul 30 j 03:49	0 $^{\circ}$ Ω	
opposition	-1952 Aug 08 j 13:08	28° る 38'51	-1°-37'-5	evening set	-1946 Jul 31 j 13:10	0° Ω 18′00	
min. Earth dist.	-1952 Aug 07 j 17:57	28° る 45'16	3.98620 AU	max. Earth dist.	-1946 Aug 12 j 08:38	2° Ω 52′01	6.41896 AU
direct	-1952 Oct 05 j 17:35	23° る 45'18					
	-1952 Dec 08 j 09:46	0° ≈		conjunction	-1946 Aug 13 j 13:44	3° Ω 07'53	1°08'28
evening set	-1951 Feb 07 j 16:46	13° ≈ 14'24		minimum elong	-1946 Aug 13 j 13:42	3° Ω 07'52	1°08'30
	-1951 Feb 15 j 01:40	15° ≈		morning rise	-1946 Aug 26 j 10:58	5° Ω 56'11	
					-1946 Oct 10 j 00:35	15° Ω	
conjunction	-1951 Feb 21 j 00:47	16° ≈ 25'44	-1°-13'-50	retrograde	-1946 Dec 24 j 13:46	22° Ω 49′22	
minimum elong	-1951 Feb 21 j 00:45	16° ≈ 25'43	1°13'53	opposition	-1945 Feb 23 j 01:09	17° Ω 56'51	1°49'32
max. Earth dist.	-1951 Feb 22 j 16:00	16° ≈ 49′13	5.98550 AU	min. Earth dist.	-1945 Feb 24 j 02:48	17° Ω 48'36	4.41705 AU
morning rise	-1951 Mar 06 j 12:00	19° ≈ 38'43			-1945 Mar 19 j 14:59	15° ŖΩ	
	-1951 Apr 21 j 19:01	0° ∀		direct	-1945 Apr 26 j 16:53	12° Ω 54'37	
retrograde	-1951 Jul 16 j 15:42	10°) €04'47			-1945 Jun 03 j 23:17	15° Ω	
min. Earth dist.	-1951 Sep 13 j 03:24	5° ₩ 10'19	4.00687 AU		-1945 Aug 28 j 13:50	0° m	
opposition	-1951 Sep 14 j 09:42	5° ₩ 00'01	-1°-53'-51	evening set	-1945 Aug 31 j 14:37	0° ™ 39'38	
direct	-1951 Nov 11 j 08:35	0°) 04′05		max. Earth dist.	-1945 Sep 11 j 12:23	3°₩03'23	6.39670 AU
evening set	-1950 Mar 17 j 00:21	19°) € 26'43					
				conjunction	-1945 Sep 13 j 07:55	3° Mp 27′22	1°17'16
conjunction	-1950 Mar 30 j 15:29	22°) €38'32	-1°-10'-41	minimum elong	-1945 Sep 13 j 07:55	3° Mp 27'22	1°17'16
minimum elong	-1950 Mar 30 j 15:32	22°) ₹38′33	1°10'42	morning rise	-1945 Sep 25 j 22:41	6° Mp 13′57	
max. Earth dist.	-1950 Apr 01 j 19:06	23°) €08'50	6.04375 AU	retrograde	-1944 Jan 25 j 00:29	23°m/22'13	
morning rise	-1950 Apr 13 j 08:55	25° ¥ 51′22		opposition	-1944 Mar 25 j 19:13	18° Mp 30'41	1°47'24
	-1950 May 01 j 11:04	0° Y		min. Earth dist.	-1944 Mar 27 j 04:59	18° Mp 19'56	4.36357 AU
retrograde	-1950 Aug 21 j 06:07	15° Ƴ 36'53		direct	-1944 May 27 j 09:45	13° Mp 30'34	
min. Earth dist.	-1950 Oct 18 j 11:04	10° Ƴ 42'27	4.09614 AU		-1944 Sep 23 j 21:54	0∘ ⊽	
opposition	-1950 Oct 19 j 18:09	10° Ƴ 31'51	-1°-27'-12	evening set	-1944 Sep 30 j 12:10	1° ≏ 27'51	
direct	-1950 Dec 17 j 05:52	5° Υ '32'43		max. Earth dist.	-1944 Oct 11 j 04:08	3° £ 51'28	6.31566 AU
evening set	-1949 Apr 22 j 18:39	24° Y ′30'22			J		-
<i>5</i>	r - j - 5.50			conjunction	-1944 Oct 13 j 02:09	4° £ 17'23	1°04'26
conjunction	-1949 May 06 j 13:12	27° Y ′38'45	0°-41'-43	minimum elong	-1944 Oct 13 j 02:12	4° £ 17'24	1°04'26
minimum elong	-1949 May 06 j 13:15	27° Y ′38'47	0°41'42	morning rise	-1944 Oct 25 j 14:48	7° ♀ 06'25	
max. Earth dist.	-1949 May 08 j 07:10	28° Y ′02'42	6.15608 AU	retrograde	-1943 Feb 25 j 23:36	24° £ 54'24	
	-1949 May 16 j 21:11	0°8	-	opposition	-1943 Apr 28 j 00:12		1°14'02
morning rise	-1949 May 20 j 08:23	0° 8 47'09		min. Earth dist.		19° ♀ 52'24	4.25955 AU
<i>5</i> - <i>,</i>	-1949 Jul 30 j 22:56			direct	-1943 Jun 28 j 18:46		
		_				- *	

2	ical year style is used: Th		•	//		, 1	
,	-1943 Oct 16 j 23:37	0° M		conjunction	-1937 May 11 j 13:59	2° 8 31'10	
evening set	-1943 Nov 01 j 02:41	3°M25'16		minimum elong	-1937 May 11 j 14:02	2° 8 31'12	0°36'16
max. Earth dist.	-1943 Nov 12 j 07:34	6° M 00′18	6.19773 AU	max. Earth dist.	-1937 May 13 j 06:32	2° 8 54'13	6.17567 AU
				morning rise	-1937 May 25 j 08:41	5° 8 38'32	
conjunction	-1943 Nov 13 j 17:33	6° ™ 19'58	0°31'55		-1937 Jul 08 j 08:40	15° 8	
minimum elong	-1943 Nov 13 j 17:35	6° ™ 19'59	0°31'53	retrograde	-1937 Sep 28 j 04:53		
morning rise	-1943 Nov 26 j 08:32	9° ™ 15′00		opposition	-1937 Nov 26 j 17:33		0°-22'-51
	-1943 Dec 22 j 00:18	15°ML		min. Earth dist.	-1937 Nov 25 j 23:03		4.23784 AU
retrograde	-1942 Apr 02 j 02:17	28° ™ 00′30			-1936 Jan 02 j 07:10		
opposition	-1942 Jun 02 j 00:19	23°M05'41	0°15'17	direct	-1936 Jan 25 j 14:34		
min. Earth dist.	-1942 Jun 02 j 18:24	22°M59'52	4.13502 AU		-1936 Feb 18 j 05:15		
direct	-1942 Aug 01 j 13:05	18° ™ 10'59		asc. node	-1936 Apr 17 j 22:13		
desc. node	-1942 Aug 31 j 13:44	19° ™ 36′28			-1936 May 20 j 10:02	0° П	
	-1942 Nov 03 j 07:07	0° ⊀̄ 70. ₹0.1111		evening set	-1936 May 31 j 19:41	2° Ⅱ 29'15	
evening set	-1942 Dec 04 j 05:33	7° ∡ *01'11		. ,.	1026 1 14:11 17	50T20124	0006116
:	1042 D 17:00:22	100.70246	09 121 20	conjunction	-1936 Jun 14 j 11:17	5° Ⅱ 30'24	0°06'16
conjunction	-1942 Dec 17 j 00:32	10°× 7 02'46		minimum elong	-1936 Jun 14 j 11:16 -1936 Jun 14 j 03:28	5°Ⅲ30'24 5°Ⅲ26'05	0°06'19
minimum elong behind sun begin	-1942 Dec 17 j 00:31 -1942 Dec 16 j 19:07	10° 尽 02'46 9° 尽 59'35	0°12'24	behind sun begin behind sun end	-1936 Jun 14 j 03:28 -1936 Jun 14 j 19:05	5° П 34'42	
behind sun begin		9° x ′3933 10° x ⁷ 05′57		max. Earth dist.		5° П 34'42 5° П 38'57	6.29696 AU
max. Earth dist.	-1942 Dec 17 j 05:54 -1942 Dec 16 j 12:04	9° ₹ 55'24	6.07816 AU	morning rise	-1936 Jun 15 j 02:43 -1936 Jun 28 j 01:14	3 П 3837 8° П 30'29	0.29090 AU
morning rise	-1942 Dec 10 j 12:04 -1942 Dec 29 j 21:29	13° x 05'34	0.07810 AU	retrograde	-1936 Oct 28 j 15:54	6 П3029 26°П07'02	
morning risc	-1942 Dec 29 j 21:29 -1941 Mar 26 j 11:05	0°る		opposition	-1936 Oct 28 j 15:34 -1936 Dec 27 j 10:10		0°38'56
retrograde	-1941 May 08 j 22:50	0 0 2° る 51'21		min. Earth dist.	-1936 Dec 27 j 10:10		4.34700 AU
retrograde	-1941 Jun 21 j 20:58	30°R. ₹		direct	-1935 Feb 26 j 15:18		4.54700710
opposition	-1941 Jul 08 j 13:58		0°-52'-5	ancer	-1935 Jun 15 j 01:21	0°95	
min. Earth dist.	-1941 Jul 08 j 11:12	27° × 53'45	4.03091 AU	evening set	-1935 Jul 04 j 02:10	4°903'13	
direct	-1941 Sep 05 j 15:56	22° x 59'39		evening sec	1,550 041 0.1,02.10	. 000 10	
	-1941 Nov 13 j 01:59	0°ਰ		conjunction	-1935 Jul 17 j 10:21	6°\$57'35	0°45'24
evening set	-1940 Jan 08 j 06:50	12° る 16'32		minimum elong	-1935 Jul 17 j 10:18	6°957'34	0°45'26
C	,			max. Earth dist.	-1935 Jul 17 j 00:26	6°952'11	6.38581 AU
conjunction	-1940 Jan 21 j 08:17	15° る 24'23	0°-53'-37	morning rise	-1935 Jul 30 j 15:22	9° © 50'22	
minimum elong	-1940 Jan 21 j 08:14	15° る 24'21	0°53'39	retrograde	-1935 Nov 28 j 06:00	26°952'24	
max. Earth dist.	-1940 Jan 22 j 01:55	15° る 34'59	5.99897 AU	opposition	-1934 Jan 27 j 08:58	21° © 57'47	1°27'17
morning rise	-1940 Feb 03 j 12:40	18° る 33'56		min. Earth dist.	-1934 Jan 27 j 23:21	21° © 53'07	4.41054 AU
	-1940 Mar 26 j 02:12	0° ≈		direct	-1934 Mar 30 j 14:16	16° © 54'32	
retrograde	-1940 Jun 14 j 16:58	8° ≈ 58'57			-1934 Jul 13 j 20:49	0 $^{\circ}$ Ω	
opposition	-1940 Aug 13 j 20:21	3° ≈ 56'31	-1°-42'-6	evening set	-1934 Aug 04 j 22:14	4° Ω 40′01	
min. Earth dist.	-1940 Aug 12 j 23:25	4° ≈ 03'32	3.98621 AU				
	-1940 Sep 17 j 05:25	30°Ŗる		conjunction	-1934 Aug 17 j 21:30	7° Ω 29′25	1°10'55
direct	-1940 Oct 11 j 00:06	29° る 02'43		minimum elong	-1934 Aug 17 j 21:28	7° Ω 29'24	1°10'57
	-1940 Nov 03 j 16:34	0° ≈		max. Earth dist.	-1934 Aug 16 j 12:28	7° Ω 11′23	6.41830 AU
	-1939 Jan 28 j 23:36	15° ≈		morning rise	-1934 Aug 30 j 17:48	10° Ω 17′20	
evening set	-1939 Feb 12 j 23:22	18° ≈ 31'21			-1934 Sep 21 j 22:28	15° Ω	
	1020 F.1. 26:00.25	210 12151	10.151.10	retrograde	-1934 Dec 28 j 22:44	27°Ω11'33	1051106
conjunction	-1939 Feb 26 j 08:25	21°≈42'51	-1°-15'-12	opposition	-1933 Feb 27 j 10:13	22°Ω19'19	1°51'06
minimum elong	-1939 Feb 26 j 08:24	21°≈42'51	1°15'14	min. Earth dist.	-1933 Feb 28 j 14:28	22°Ω10'15	4.41156 AU
max. Earth dist. morning rise	-1939 Feb 28 j 03:10 -1939 Mar 11 j 20:38	22°≈08'23 24°≈55'58	5.99173 AU	direct	-1933 May 01 j 03:46 -1933 Aug 12 j 04:46	17° Ω 17'18 0° ™	
morning rise	•	0° ∺		arranina aat	• •		
retrograde	-1939 Apr 02 j 16:32 -1939 Jul 21 j 19:09	15° H 17'33		evening set max. Earth dist.	-1933 Sep 04 j 22:21 -1933 Sep 15 j 18:52	5° Mp 03'56 7° Mp 27'21	6.38669 AU
min. Earth dist.	-1939 Sep 18 j 04:29	10° H 23'23	4.01873 AU	max. Earth dist.	-1933 Sep 13 J 16.32	/ III/2/21	0.38009 AU
opposition	-1939 Sep 18 j 04.29 -1939 Sep 19 j 12:09	10 X2323 10°¥12'36	-1°-52'-31	conjunction	-1933 Sep 17 j 15:08	7° m 51'48	1°16'45
direct	-1939 Nov 16 j 11:05	5° H 16'17	-1 -32-31	minimum elong	-1933 Sep 17 j 15:08	7° m) 51'49	1°16'46
evening set	-1938 Mar 22 j 05:55	24°) 35'12		morning rise	-1933 Sep 30 j 05:18	10° m 38'34	1 10 40
evening sec	1930 Mar 22 j 05.55	21 7(33 12		retrograde	-1932 Jan 29 j 12:08	27° m 51'38	
conjunction	-1938 Apr 04 j 21:36	27°) (46'35	-1°-7'-55	opposition	-1932 Mar 30 j 08:54	23° m 00'04	1°44'32
minimum elong	-1938 Apr 04 j 21:39	27°) (46'37	1°07'57	min. Earth dist.	-1932 Mar 31 j 17:49	22° m/49'36	4.34987 AU
max. Earth dist.	-1938 Apr 06 j 23:36	28°) 15'49	6.05984 AU	direct	-1932 May 31 j 20:22	18° Mp 00'21	
	-1938 Apr 14 j 10:11	0° Υ			-1932 Sep 07 j 04:02	0∘ <u>⊽</u>	
morning rise	-1938 Apr 18 j 15:37	0° Y ′58'53		evening set	-1932 Oct 04 j 21:43	6° £ 00'54	
retrograde	-1938 Aug 26 j 00:34	20° Ƴ 35'23		max. Earth dist.	-1932 Oct 15 j 15:14	8° ≏ 25'57	6.29952 AU
min. Earth dist.	-1938 Oct 23 j 07:33	15° Y '40'42	4.11463 AU		•		
opposition	-1938 Oct 24 j 13:21	15° Y 30'32	-1°-20'-38	conjunction	-1932 Oct 17 j 11:34	8° ჲ 51'01	1°00'54
direct	-1938 Dec 22 j 05:09	10° Y 30'59		minimum elong	-1932 Oct 17 j 11:37	8° ჲ 51′02	1°00'54
evening set	-1937 Apr 27 j 19:15	29° Y 23'36		morning rise	-1932 Oct 30 j 00:17		
	-1937 Apr 30 j 11:38	0°8		retrograde	-1931 Mar 02 j 20:36	29° £ 36′19	

2	iical year style is used: Th		•	//		/ 1	ige 42
opposition	-1931 May 02 j 20:19	-		evening set	-1925 May 02 j 16:33	4° 8 08'05	
min. Earth dist.	-1931 May 02 j 20.19		4.24202 AU	evening set	-1923 May 02 J 10.33	4 00803	
	, ,		4.24202 AU	:	1025 Mars 16 : 11.06	70 1 1155	0°-30'-45
direct	-1931 Jul 03 j 12:12	19° Ω 46'46		conjunction	-1925 May 16 j 11:06	7° 8 14'55	
. ,	-1931 Sep 29 j 07:14	0°M		minimum elong	-1925 May 16 j 11:09	7° 엉 14'56 7° 엉 35'27	0°30'45
evening set	-1931 Nov 05 j 16:36	8°M11'21	C 10050 ATT	max. Earth dist.	-1925 May 17 j 23:23	. •	6.19202 AU
max. Earth dist.	-1931 Nov 16 j 23:56	10°M48'25	6.18058 AU	morning rise	-1925 May 30 j 05:41		
	1021 N 10:07.51	1.10 M 0.056	0026106	. 1	-1925 Jun 20 j 07:56		
conjunction	-1931 Nov 18 j 07:51	11°M06'56	0°26'06	retrograde	-1925 Oct 02 j 14:07		4.25260 ATT
minimum elong	-1931 Nov 18 j 07:52	11°M06'57	0°26'05	min. Earth dist.	-1925 Nov 30 j 11:21		4.25268 AU
morning rise	-1931 Nov 30 j 23:34	14°M03'01		opposition	-1925 Dec 01 j 03:46		0°-14'-10
	-1931 Dec 05 j 02:34	15°M		direct	-1924 Jan 30 j 05:00		
	-1930 Feb 21 j 17:02	0°×7 2°×756140		asc. node	-1924 Feb 27 j 21:20	19° ႘ 59'04 0° Ⅱ	
retrograde	-1930 Apr 07 j 03:37	2° x ⁷ 56'49		. ,	-1924 May 03 j 08:03		
	-1930 May 22 j 07:24	30°RM 01120	0005140	evening set	-1924 Jun 05 j 11:48	7° Ⅱ 01'21	
opposition	-1930 Jun 07 j 02:02	28°M01'29	0°05'48	:	1024 June 10:02:45	100π01/41	0012107
min. Earth dist.	-1930 Jun 07 j 16:14	27°M56'54 24°M11'54	4.11978 AU	conjunction	-1924 Jun 19 j 02:45		0°12'06
desc. node	-1930 Jul 11 j 05:16			minimum elong	-1924 Jun 19 j 02:44		0°12'08
direct	-1930 Aug 06 j 08:59	23°M07'06		behind sun begin	-1924 Jun 18 j 21:17	9° I I58'40	
	-1930 Oct 14 j 04:52	0° √		behind sun end	-1924 Jun 19 j 08:12		(20042 444
evening set	-1930 Dec 09 j 01:13	12° ≯ 00'43		max. Earth dist.	-1924 Jun 19 j 15:10		6.30943 AU
				morning rise	-1924 Jul 02 j 15:34		
conjunction	-1930 Dec 21 j 20:59	15° ₹ 03'08	0°-18'-41		-1924 Oct 14 j 17:26	0°95	
minimum elong	-1930 Dec 21 j 20:58	15° ∡ '03'07	0°18'45	retrograde	-1924 Nov 01 j 23:01	0°932'07	
max. Earth dist.	-1930 Dec 21 j 13:40	14° ∡ 58'47	6.06627 AU		-1924 Nov 20 j 01:53		
morning rise	-1929 Jan 03 j 18:46	18° ∡ 06'49		opposition	-1924 Dec 31 j 17:30		0°46'41
_	-1929 Feb 27 j 10:33	0° ろ		min. Earth dist.	-1924 Dec 31 j 17:57		4.35631 AU
retrograde	-1929 May 14 j 05:39	7° る 58'44		direct	-1923 Mar 03 j 02:13		
opposition	-1929 Jul 13 j 19:00	2° ප 59'37			-1923 May 28 j 09:59	0°€	
min. Earth dist.	-1929 Jul 13 j 14:04	3° る 01'15	4.02357 AU	evening set	-1923 Jul 08 j 14:03	8° © 27'27	
	-1929 Aug 07 j 08:11	30°₽ ✓				_	
direct	-1929 Sep 10 j 18:23	28° ∡ 06'27		conjunction	-1923 Jul 21 j 20:57		0°49'54
	-1929 Oct 14 j 18:33	0°₹		minimum elong	-1923 Jul 21 j 20:54		0°49'56
evening set	-1928 Jan 13 j 07:36	17° 七 24'38		max. Earth dist.	-1923 Jul 21 j 06:23		6.39121 AU
		_		morning rise	-1923 Aug 04 j 00:55		
conjunction	-1928 Jan 26 j 09:58		0°-58'-6		-1923 Nov 04 j 13:18	0 \circ Ω	
minimum elong	-1928 Jan 26 j 09:55		0°58'09	retrograde	-1923 Dec 02 j 12:58	1° Ω 13'31	
max. Earth dist.	-1928 Jan 27 j 07:51		5.99668 AU		-1923 Dec 30 j 11:57		
morning rise	-1928 Feb 08 j 15:27			opposition	-1922 Jan 31 j 16:26		
	-1928 Mar 06 j 17:54	0° ≈		min. Earth dist.	-1922 Feb 01 j 09:12		4.41208 AU
retrograde	-1928 Jun 19 j 21:35	14° ≈ 08'49		direct	-1922 Apr 04 j 00:11		
opposition	-1928 Aug 18 j 23:50	9° ≈ 05'55	-1°-46'-8		-1922 Jun 25 j 22:15	$0 {\circ} \Omega$	
min. Earth dist.	-1928 Aug 18 j 00:26	9° ≈ 13'46	3.98956 AU	evening set	-1922 Aug 09 j 06:58	9° Ω 01'50	
direct	-1928 Oct 16 j 01:25	4°≈11'51		max. Earth dist.	-1922 Aug 20 j 19:51	11° Ω 32'37	6.41586 AU
	-1927 Jan 11 j 00:14	15° ≈					
evening set	-1927 Feb 18 j 02:41	23° ≈ 39′01		conjunction	-1922 Aug 22 j 05:22		1°12'57
				minimum elong	-1922 Aug 22 j 05:20	11° Ω 50′55	1°12'58
conjunction	-1927 Mar 03 j 12:34	26° ≈ 50'31	-1°-15'-55	morning rise	-1922 Sep 04 j 00:29	14° Ω 38'31	
minimum elong	-1927 Mar 03 j 12:34	26° ≈ 50'31	1°15'56		-1922 Sep 05 j 16:06	15° Ω	
max. Earth dist.	-1927 Mar 05 j 08:05	27°≈16′26	6.00000 AU		-1922 Dec 01 j 06:38	0° ™	
	-1927 Mar 16 j 19:38	0°) €		retrograde	-1921 Jan 02 j 06:25	1°My34'23	
morning rise	-1927 Mar 17 j 01:45	0°) €03'37			-1921 Feb 03 j 10:45	30° R Ω	
retrograde	-1927 Jul 26 j 17:05	20° ∺ 20′00		opposition	-1921 Mar 03 j 20:05	26° Ω 42'21	1°52'01
min. Earth dist.	-1927 Sep 23 j 02:26	15° ∺ 25'40	4.03097 AU	min. Earth dist.	-1921 Mar 05 j 00:29		4.40548 AU
opposition	-1927 Sep 24 j 10:11	15°) 14′51	-1°-50'-21	direct	-1921 May 05 j 12:53	21° Ω 40'41	
direct	-1927 Nov 21 j 10:53	10°) 18′02			-1921 Jul 25 j 00:09	0° ™	
evening set	-1926 Mar 27 j 07:30	29°) ₹33′22		evening set	-1921 Sep 09 j 06:23	9° ™ 28'46	
	-1926 Mar 29 j 05:28	0 ° Υ		max. Earth dist.	-1921 Sep 20 j 01:01	11° m 51'35	6.37734 AU
conjunction	-1926 Apr 10 j 00:03	2° Y 44'23	-1°-4'-45	conjunction	-1921 Sep 21 j 22:21	12° Mp 16'43	1°15'47
minimum elong	-1926 Apr 10 j 00:06	2° Y 44'25	1°04'46	minimum elong	-1921 Sep 21 j 22:22	12° Mp 16'43	1°15'48
max. Earth dist.	-1926 Apr 12 j 02:25	3° Ƴ 13'44	6.07507 AU	morning rise	-1921 Oct 04 j 12:10	15°Mp03'41	
morning rise	-1926 Apr 23 j 18:19	5° Y 56′08			-1921 Dec 25 j 11:36	0∘ ⊽	
retrograde	-1926 Aug 30 j 17:15	25° Y 24′07		retrograde	-1920 Feb 03 j 02:39	2° ≏ 21'18	
min. Earth dist.	-1926 Oct 28 j 00:47	20° Y 29′09	4.13108 AU		-1920 Mar 14 j 05:05	30°R, Mp	
opposition	-1926 Oct 29 j 04:56	20° Y 19'34	-1°-13'-44	opposition	-1920 Apr 03 j 23:12	27° m 29'42	1°41'00
direct	-1926 Dec 27 j 00:07	15° Ƴ 19'38		min. Earth dist.	-1920 Apr 05 j 08:44	27° m 19'02	4.33767 AU
	-1925 Apr 14 j 00:55	0°8		direct	-1920 Jun 05 j 09:50	22°M 30'20	

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, page 43 Attention, astronomical year style is used: The year -1920 in astronomical counting style is the year 1921 BCE in historical counting style.

Attention, astronom	nical year style is used: The	he year -1920	in astronomical co	unting style is the year	r 1921 BCE in historical	counting style.	
	-1920 Aug 19 j 07:13	0∘ ত		conjunction	-1914 Apr 15 j 03:46	7° Ƴ 46′03	-1°-1'-5
evening set	-1920 Oct 09 j 06:58			minimum elong	-1914 Apr 15 j 03:50		1°01'05
max. Earth dist.	-1920 Oct 20 j 01:50	12° ≏ 59'40	6.28544 AU	max. Earth dist.	-1914 Apr 17 j 04:20		6.08726 AU
				morning rise	-1914 Apr 28 j 22:38	10° Y 57′27	
conjunction	-1920 Oct 21 j 20:52		0°57'00		-1914 Aug 22 j 00:14	0°8	
minimum elong	-1920 Oct 21 j 20:55		0°56'59	retrograde	-1914 Sep 04 j 09:47	0° 8 17'54	
morning rise	-1920 Nov 03 j 09:42				-1914 Sep 17 j 18:30		
	-1919 Jan 12 j 07:34	0°M		opposition	-1914 Nov 02 j 21:57		
retrograde	-1919 Mar 07 j 14:48	4°M16'50		min. Earth dist.	-1914 Nov 01 j 18:28		4.14496 AU
•,•	-1919 May 02 j 22:18		0050122	direct	-1914 Dec 31 j 20:19		
opposition	-1919 May 07 j 15:44		0°59'32	. ,	-1913 Mar 26 j 15:10	0°8	
min. Earth dist.	-1919 May 08 j 18:42		4.22680 AU	evening set	-1913 May 07 j 16:12	8° 8 58'31	
direct	-1919 Jul 08 j 02:31				1012 M 21 : 10.42	120 404141	09 241 54
evening set	-1919 Sep 08 j 09:41 -1919 Nov 10 j 05:33	0°M		conjunction minimum elong	-1913 May 21 j 10:43 -1913 May 21 j 10:45		0°24'54
evening set	-1919 Nov 10 j 03:35			max. Earth dist.	-1913 May 21 j 10:45 -1913 May 22 j 20:26		
	-1919 NOV 19 J 04.33	13 116		max. Earth dist.	-1913 Jun 03 j 10:12		0.20071 AU
conjunction	-1919 Nov 22 j 21:12	15°M 51'38	0°20'09	morning rise	-1913 Jun 04 j 04:45		
minimum elong	-1919 Nov 22 j 21:13		0°20'08	morning rise	-1913 Aug 20 j 11:23	0°II	
max. Earth dist.	-1919 Nov 21 j 16:21		6.16542 AU	retrograde	-1913 Oct 07 j 03:46	3° Ⅱ 27'46	
morning rise	-1919 Dec 05 j 13:34		0.103 12 110	retrograde	-1913 Nov 23 j 21:57		
	-1918 Jan 26 j 20:03	0° ∡ 7		opposition	-1913 Dec 05 j 16:16		0°-5'-12
retrograde	-1918 Apr 12 j 05:48	7° ∡ 750'21		min. Earth dist.	-1913 Dec 05 j 02:26		4.26682 AU
desc. node	-1918 May 21 j 09:03	5° ∡ ³33'41		asc. node	-1912 Jan 07 j 07:01		
opposition	-1918 Jun 12 j 02:41	2° ∡ 754'32	0°-3'-41	direct	-1912 Feb 03 j 22:17		
min. Earth dist.	-1918 Jun 12 j 15:14	2° ∡ 750′29	4.10558 AU		-1912 Apr 13 j 01:10	Π°	
	-1918 Jul 06 j 05:37	30°RML		evening set	-1912 Jun 10 j 06:28	11° Ⅱ 40′03	
direct	-1918 Aug 11 j 05:59				v		
	-1918 Sep 15 j 18:15	0° ∡ ¹		conjunction	-1912 Jun 23 j 20:29	14° Ⅱ 39'29	0°18'01
evening set	-1918 Dec 13 j 19:43	16° ∡ 757′23		minimum elong	-1912 Jun 23 j 20:28	14° ∏ 39′29	0°18'03
				max. Earth dist.	-1912 Jun 24 j 05:28	14° Ⅱ 44′26	6.32211 AU
conjunction	-1918 Dec 26 j 16:18	20° ₹ 100'40	0°-24'-52	morning rise	-1912 Jul 07 j 08:17	17° Ⅱ 37'39	
minimum elong	-1918 Dec 26 j 16:16	20° х 00′39	0°24'56		-1912 Sep 08 j 11:47	0 \circ \odot	
max. Earth dist.	-1918 Dec 26 j 12:33	19° ∡ 758′26	6.05432 AU	retrograde	-1912 Nov 06 j 07:13	5° 5 03'29	
morning rise	-1917 Jan 08 j 15:03	23° ₹ 05'18		opposition	-1911 Jan 05 j 03:16	0° © 06'19	0°54'21
	-1917 Feb 07 j 19:28	0°ප		min. Earth dist.	-1911 Jan 05 j 05:15		4.36709 AU
retrograde	-1917 May 19 j 09:43				-1911 Jan 05 j 22:25		
opposition	-1917 Jul 18 j 22:17			direct	-1911 Mar 07 j 15:04		
min. Earth dist.	-1917 Jul 18 j 14:16		4.01528 AU		-1911 May 06 j 14:56		
direct	-1917 Sep 15 j 17:20	3°る10'40		evening set	-1911 Jul 13 j 03:33	12°556'58	
evening set	-1916 Jan 18 j 08:03	22° 6 31'07					
	1016 1 21:11 10	250740104	10.21.0	conjunction	-1911 Jul 26 j 09:15		0°54'13
conjunction	-1916 Jan 31 j 11:19			minimum elong	-1911 Jul 26 j 09:12		0°54'15
minimum elong max. Earth dist.	-1916 Jan 31 j 11:16		1°02'12	max. Earth dist.	-1911 Jul 25 j 17:16		6.39955 AU
morning rise	-1916 Feb 01 j 11:35 -1916 Feb 13 j 17:54		5.99256 AU	morning rise	-1911 Aug 08 j 11:45	18 29 40 39 0° Ω	
morning rise		28 3 3047 0° ≈		ratragrada	-1911 Oct 05 j 01:19	5° Ω 38'25	
	-1916 Feb 18 j 14:33 -1916 May 02 j 10:35	0°≈ 15°≈		retrograde opposition	-1911 Dec 06 j 20:26 -1910 Feb 05 j 01:25	0° Ω 44'38	1°36'40
retrograde	-1916 Jun 25 j 01:15	15 ≈ 18'08		min. Earth dist.	-1910 Feb 05 j 19:35	0° Ω 38'45	4.41775 AU
	-1916 Aug 18 j 11:41	15°R≈			-1910 Feb 10 j 19:43	30°Rூ	
min. Earth dist.	-1916 Aug 23 j 01:21	14°≈23'11	3.99016 AU	direct	-1910 Apr 08 j 11:42		
opposition	-1916 Aug 24 j 02:20	14°≈14'46	-1°-49'-23		-1910 Jun 03 j 12:50	0° N	
direct	-1916 Oct 21 j 02:51	9° ≈ 20'21		evening set	-1910 Aug 13 j 16:27		
	-1916 Dec 20 j 10:00			, and the second	-1910 Aug 20 j 21:48		
evening set	-1915 Feb 23 j 06:15	28° ≈ 47'31		max. Earth dist.	-1910 Aug 25 j 01:18		6.41833 AU
Č	-1915 Feb 28 j 08:37	0°) €			į,		
	v			conjunction	-1910 Aug 26 j 13:34	16° Ω 14'11	1°14'37
conjunction	-1915 Mar 08 j 17:21	1° ¥ 59'16	-1°-16'-4	minimum elong	-1910 Aug 26 j 13:32	16° Ω 14'10	1°14'38
minimum elong	-1915 Mar 08 j 17:22	1° ¥ 59'17	1°16'06	morning rise	-1910 Sep 08 j 07:47	19° Ω 01'16	
max. Earth dist.	-1915 Mar 10 j 15:57	2°) €26'59	6.00521 AU	-	-1910 Nov 02 j 17:25	0° m	
morning rise	-1915 Mar 22 j 07:20	5°) 12'30		retrograde	-1909 Jan 06 j 15:18	5° m 57'02	
retrograde	-1915 Jul 31 j 17:45	25°) €24'46		opposition	-1909 Mar 08 j 06:01	1°M 05'07	1°52'17
min. Earth dist.	-1915 Sep 28 j 01:32	20°) 30′13	4.04017 AU	min. Earth dist.	-1909 Mar 09 j 11:36	0° m 55'39	4.40475 AU
opposition	-1915 Sep 29 j 08:49	20°) 19'33	-1°-47'-24		-1909 Mar 16 j 19:09	30°R Ω	
direct	-1915 Nov 26 j 10:58			direct	-1909 May 09 j 23:48	26° Ω 03'39	
	-1914 Mar 12 j 05:59	0° Υ			-1909 Jul 02 j 07:47	0° m	
evening set	-1914 Apr 01 j 10:44	4° Ƴ 35'18		evening set	-1909 Sep 13 j 13:09	13° m 51'09	

Planetary Phenomena of Jupiter from -2400 through -1900 (UT), Astrodienst AG 7-Dez-2017 14:42, Attention, astronomical year style is used: The year -1909 in astronomical counting style is the year 1910 BCE in historical counting style. max. Earth dist. -1909 Sep 24 j 08:13 16° m 14'21 6.37345 AU conjunction -1903 Mar 13 j 20:24 7°**)** (02'34 -1°-15'-37 -1903 Mar 13 j 20:24 7°¥02'34 1°15'39 minimum elong -1909 Sep 26 j 04:39 16° mp 39'00 1°14'24 -1903 Mar 15 j 19:15 7°**₩**30'23 conjunction max. Earth dist. 6 00704 AU minimum elong -1909 Sep 26 j 04:40 16° mp 39'01 1°14'25 -1903 Mar 27 j 11:34 10° **₭** 16'10 morning rise -1909 Oct 08 j 17:48 19° m 25'55 -1903 Jul 20 j 14:13 $0^{\circ}\Upsilon$ morning rise -1909 Nov 29 j 17:33 0°Y25'30 0∘ଫ retrograde -1903 Aug 05 j 15:09 -1908 Feb 07 j 12:42 -1903 Aug 21 j 14:39 30°R ₩ retrograde 6°**£**46'16 opposition -1908 Apr 08 j 11:39 1°**£**54'34 1°36'55 min. Earth dist. -1903 Oct 02 j 21:21 25°**₭**31'17 4.04623 AU min. Earth dist. -1908 Apr 09 j 20:22 1°**£**44'10 4.33070 AU opposition -1903 Oct 04 j 05:35 25°**¥**20′17 -1°-43'-41 -1908 Apr 23 j 21:36 30°R, Mp direct -1903 Dec 01 j 08:14 20° ¥22'38 $0^{\circ}\Upsilon$ direct -1908 Jun 09 j 19:46 26° m 55'34 -1902 Feb 21 j 18:05 -1908 Jul 26 j 01:46 -1902 Apr 06 j 13:19 9°**Ƴ**34'39 0∘**⊽** evening set evening set -1908 Oct 13 j 13:44 14° **2**59'19 max. Earth dist. -1908 Oct 24 j 08:36 17°**£**25'59 6.27590 AU conjunction -1902 Apr 20 j 07:06 12°**Υ**45'16 0°-56'-58 minimum elong $-1902 \text{ Apr } 20 \text{ j } 07:10 \quad 12^{\circ} \Upsilon 45'18$ 0°56'58 conjunction -1908 Oct 26 j 03:25 17°**£**50'20 0°52'52 max. Earth dist. -1902 Apr 22 j 07:08 13°**Y**13'04 6.09728 AU minimum elong -1908 Oct 26 j 03:27 17°**⊆**50'21 0°52'51 morning rise -1902 May 04 j 02:15 15°**Y**56′21 morning rise -1908 Nov 07 j 16:29 20°**♀**41'13 -1902 Jul 12 j 04:32 0°8 -1908 Dec 21 j 10:26 0°M retrograde -1902 Sep 09 j 04:25 5°810'01 retrograde -1907 Mar 12 j 07:44 8°M49'04 opposition -1902 Nov 07 j 14:35 0°**8**06'03 0°-58'-20 opposition -1907 May 12 j 08:06 3°ML55'49 0°51'53 min. Earth dist. -1902 Nov 06 j 12:55 0°**8**14'48 4.15759 AU min. Earth dist. -1907 May 13 j 10:41 3°M-47'19 4.21492 AU -1902 Nov 08 j 08:22 30°RΥ -1907 Jun 17 i 01:10 30°R Ω direct -1901 Jan 05 j 17:17 25°**Y**05′21 direct -1907 Jul 12 j 16:30 28° **2**59'33 -1901 Mar 04 i 06:01 0°8 -1907 Aug 07 j 04:36 0°ML evening set -1901 May 12 j 15:22 13°**8**47'38 -1907 Nov 03 j 18:15 15°M -1901 May 18 j 00:30 15°8 -1907 Nov 14 j 15:09 17°M29'44 evening set max. Earth dist. -1907 Nov 26 j 04:44 20°M11'21 -1901 May 26 j 09:42 16°\(\begin{align*} \begin{al 6.15239 AU conjunction -1901 May 26 j 09:43 16°**8**53'08 0°18'53 minimum elong -1901 May 27 j 17:49 17°**8**11'11 -1907 Nov 27 j 07:21 20°M26'53 0°14'17 conjunction max. Earth dist. 6.22102 AU -1901 Jun 09 j 03:15 19°**8**57'59 -1907 Nov 27 j 07:21 20°M26'53 morning rise 0°14'15 minimum elong -1907 Nov 27 j 03:21 20°M24'34 -1901 Jul 27 j 05:40 0°**Ц** behind sun begin -1907 Nov 27 j 11:22 20°M29'13 -1901 Oct 11 j 14:13 8°**II**07'50 retrograde behind sun end -1907 Dec 10 j 00:18 23°M24'43 -1901 Nov 16 j 14:31 6°**Ⅲ**04'20 morning rise asc. node -1906 Jan 08 j 07:02 0° **尽** -1901 Dec 10 j 04:22 3°**Ⅲ**07'12 0°03'45 opposition -1906 Apr 02 j 11:41 12° ₹ 13'29 -1901 Dec 09 j 15:18 3°**I**I1'36 4.28138 AU desc. node min. Earth dist. -1906 Apr 17 j 02:04 12° ₹33'31 -1900 Jan 04 j 08:59 30°R₩ retrograde opposition -1906 Jun 16 j 22:53 7°**х** 37'18 0°-12'-51 direct -1900 Feb 08 j 13:35 28°**8**04'26 min. Earth dist. -1906 Jun 17 j 09:13 7°**х** 33'57 4.09243 AU -1900 Mar 15 j 06:42 $0^{\circ}\Pi$ direct -1906 Aug 15 j 21:09 2°**尽** 43'22 evening set -1900 Jun 15 j 00:16 16°**I**I16'57 -1906 Dec 18 j 10:56 21° ₹ 43'53 evening set -1900 Jun 28 j 13:13 19°**Ⅲ**15'22 0°23'48 conjunction -1906 Dec 31 j 08:13 24° ₹ 48'02 0°-30'-40 -1900 Jun 28 j 13:11 19°**Ⅲ**15'21 0°23'50 conjunction minimum elong -1906 Dec 31 j 08:11 24° ₹ 48'00 0°30'42 max. Earth dist. -1900 Jun 28 j 18:46 19°**Ⅱ**18'25 minimum elong 6.33568 AU -1906 Dec 31 j 06:23 24° ₹ 46'56 6.04217 AU -1900 Jul 11 j 23:49 22°**Ⅲ**12'28 max. Earth dist. morning rise -1905 Jan 13 j 08:02 27° ₹ 53'39 morning rise -1900 Aug 18 i 08:37 0ಂತಾ -1905 Jan 22 i 06:45 0°る retrograde -1900 Nov 10 i 16:05 9°932'35 -1905 May 24 j 10:53 17°る58'21 retrograde -1905 Jul 23 j 21:35 12°る58'13 -1°-16'-14 opposition min. Earth dist. -1905 Jul 23 j 11:38 13°る01'30 4.00533 AU direct -1905 Sep 20 j 13:27 8°る04'58 -1904 Jan 23 j 05:22 27°る28'47 evening set -1904 Feb 02 j 17:42 conjunction -1904 Feb 05 j 09:53 0°≈38'34 -1°-5'-35 minimum elong -1904 Feb 05 j 09:51 0°≈38'32 1°05'38 -1904 Feb 06 j 14:15 max. Earth dist. 0°**≈**55'36 5.98584 AU -1904 Feb 18 j 17:30 3°≈50'03 morning rise -1904 Apr 08 j 21:28 15°≈ -1904 Jun 30 j 04:10 24°≈20'04 retrograde min. Earth dist. -1904 Aug 28 j 00:23 19°≈25'04 3.98766 AU opposition -1904 Aug 29 j 02:02 19°≈16'24 -1°-51'-43 -1904 Oct 06 j 18:22 15°R≈ direct -1904 Oct 26 j 00:43 14°≈21'45

> -1904 Nov 14 j 07:30 15°≈ -1903 Feb 11 j 21:14

-1903 Feb 28 j 08:20

evening set

0°**)**€

3°**)** 50′24

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 1 Attention, astronomical year style is used: The year -1900 in astronomical counting style is the year 1901 BCE in historical counting style.

Attention, astronom	nical year style is used: The	he year -1900	in astronomical cou	unting style is the year	1901 BCE in historical	counting style	
	-1900 Jan 04 j 08:59	30° ₹ 8		minimum elong	-1895 Dec 01 j 22:25	25°M15'54	0°08'01
direct	-1900 Feb 08 j 13:35	28° 8 04'26		behind sun begin	-1895 Dec 01 j 15:14	25°M11'42	
	-1900 Mar 15 j 06:42	Π °0		behind sun end	-1895 Dec 02 j 05:35	25° ML $20'05$	
evening set	-1900 Jun 15 j 00:16	16° Ⅱ 16'57		max. Earth dist.	-1895 Nov 30 j 21:41	25°M01'24	6.13409 AU
				morning rise	-1895 Dec 14 j 16:20	28°M14'55	
conjunction	-1900 Jun 28 j 13:13	19° Ⅱ 15'22	0°23'48		-1895 Dec 22 j 05:41	0°⊀	
minimum elong	-1900 Jun 28 j 13:11	19° Ⅱ 15′21	0°23'50	desc. node	-1894 Feb 10 j 08:28		
max. Earth dist.	-1900 Jun 28 j 18:46		6.33568 AU	retrograde	-1894 Apr 22 j 05:50	17° ∡ ³32'54	
morning rise	-1900 Jul 11 j 23:49	22° Ⅱ 12'28		opposition	-1894 Jun 22 j 01:30	12° ∡ ³36′08	0°-22'-26
	-1900 Aug 18 j 08:37	0 \circ \odot		min. Earth dist.	-1894 Jun 22 j 09:05	12° ∡ ³33'40	4.07561 AU
retrograde	-1900 Nov 10 j 16:05	9° © 32'35		direct	-1894 Aug 20 j 19:32	7° ∡¹ 42'23	
opposition	-1899 Jan 09 j 12:22	4° © 35'55	1°01'39	evening set	-1894 Dec 23 j 08:33	26° х 47′30	
min. Earth dist.	-1899 Jan 09 j 17:08	4° © 34'22	4.37835 AU				
	-1899 Feb 22 j 22:21	30°RⅡ		conjunction	-1893 Jan 05 j 06:55	29° ₹ 52'41	0°-36'-34
direct	-1899 Mar 12 j 04:44	29° ∏ 32′28		minimum elong	-1893 Jan 05 j 06:53	29° х 52′39	0°36'38
	-1899 Mar 29 j 13:59	0 \circ \odot		max. Earth dist.	-1893 Jan 05 j 10:29	29° ∡ ¹54'48	6.02855 AU
evening set	-1899 Jul 17 j 15:47	17° © 23'54			-1893 Jan 05 j 19:10	0° ට	
				morning rise	-1893 Jan 18 j 07:41	2° る 59'21	
conjunction	-1899 Jul 30 j 20:14	20°915'53	0°58'11	retrograde	-1893 May 29 j 19:39		
minimum elong	-1899 Jul 30 j 20:11	20°©15'52	0°58'13	opposition	-1893 Jul 29 j 03:32	18° ප 10'01	-1°-23'-29
max. Earth dist.	-1899 Jul 30 j 00:56	20°505'22	6.40719 AU	min. Earth dist.	-1893 Jul 28 j 15:16	18° ප 14'05	3.99674 AU
morning rise	-1899 Aug 12 j 21:27	23° © 06'15		direct	-1893 Sep 25 j 15:42	13° る 16'46	
	-1899 Sep 15 j 00:23	$0^{\circ}\Omega$			-1892 Jan 16 j 22:10	0° ≈	
retrograde	-1899 Dec 11 j 02:56	10° Ω 01′20		evening set	-1892 Jan 28 j 09:45	2° ≈ 43'07	
opposition	-1898 Feb 09 j 09:41	5° Ω 07'50	1°40'36				
min. Earth dist.	-1898 Feb 10 j 05:18	5° Ω 01'29	4.42132 AU	conjunction	-1892 Feb 10 j 15:11	5° ≈ 53'27	-1°-8'-45
direct	-1898 Apr 12 j 21:22	0° Ω 04'58		minimum elong	-1892 Feb 10 j 15:09	5° ≈ 53'26	1°08'47
	-1898 Aug 04 j 23:04	15° Ω		max. Earth dist.	-1892 Feb 11 j 22:08	6°≈12'02	5.98299 AU
evening set	-1898 Aug 18 j 00:43	17° Ω 48'09		morning rise	-1892 Feb 24 j 00:05	9° ≈ 05'35	
max. Earth dist.	-1898 Aug 29 j 07:40	20° Ω 15'54	6.41728 AU		-1892 Mar 20 j 10:08	15° ≈	
				retrograde	-1892 Jul 05 j 08:43	29° ≈ 35'44	
conjunction	-1898 Aug 30 j 20:53	20° Ω 36′16	1°15'52	min. Earth dist.	-1892 Sep 02 j 02:02	24° ≈ 41'19	3.99144 AU
minimum elong	-1898 Aug 30 j 20:52	20° Ω 36′15	1°15'54	opposition	-1892 Sep 03 j 06:31	24° ≈ 31'41	-1°-53'-18
morning rise	-1898 Sep 12 j 14:01	23° Ω 23′00		direct	-1892 Oct 31 j 03:54	19° ≈ 36'41	
	-1898 Oct 14 j 03:12	0° ™			-1891 Jan 24 j 07:24	0°)	
retrograde	-1897 Jan 11 j 00:10	10°M/20'11		evening set	-1891 Mar 05 j 14:57	9°) 04′02	
opposition	-1897 Mar 12 j 16:18	5°Mp28′26	1°52'00				
min. Earth dist.	-1897 Mar 13 j 23:02	5°Mp18'37	4.39906 AU	conjunction	-1891 Mar 19 j 04:03	12°) 1 6′11	-1°-14'-37
direct	-1897 May 14 j 09:46	0° m ,27'17		minimum elong	-1891 Mar 19 j 04:05	12° 升 16′12	1°14'38
evening set	-1897 Sep 17 j 20:24	18°M/15'56		max. Earth dist.	-1891 Mar 21 j 05:16	12°) 45′18	6.01717 AU
max. Earth dist.	-1897 Sep 28 j 12:45	20° M 38'04	6.36334 AU	morning rise	-1891 Apr 01 j 19:54	15°) €29'36	
					-1891 Jun 10 j 10:55	0 ° $\mathbf{\Upsilon}$	
conjunction	-1897 Sep 30 j 11:15	21°Mp03'57	1°12'37	retrograde	-1891 Aug 10 j 15:42	5° Ƴ 32'06	
minimum elong	-1897 Sep 30 j 11:17	21°Mp03'58	1°12'37	min. Earth dist.	-1891 Oct 07 j 21:13	0° Ƴ 37'35	4.06150 AU
morning rise	-1897 Oct 13 j 00:16	23° m 51'10		opposition	-1891 Oct 09 j 04:44	0° Υ 26'49	-1°-39'-8
	-1897 Nov 10 j 16:15	0∘ ⊽			-1891 Oct 12 j 11:19	30° ₹ ₩	
retrograde	-1896 Feb 12 j 03:34	11° ≏ 16'41		direct	-1891 Dec 06 j 11:12	25°) 28′42	
opposition	-1896 Apr 13 j 02:18	6° £ 24'51	1°32'16		-1890 Jan 29 j 11:35	0° Υ	
min. Earth dist.	-1896 Apr 14 j 11:12	6° £ 14'23	4.31666 AU	evening set	-1890 Apr 11 j 16:51	14° Y 35'54	
direct	-1896 Jun 14 j 08:14	1° ≏ 26'09					
evening set	-1896 Oct 17 j 23:03	19° ≙ 33'06		conjunction	-1890 Apr 25 j 11:01	17° Y 45'50	0°-52'-28
max. Earth dist.	-1896 Oct 28 j 20:23	22° ₽ 01'41	6.25920 AU	minimum elong	-1890 Apr 25 j 11:04	17° Y 45'52	0°52'28
				max. Earth dist.	-1890 Apr 27 j 10:59	18° Ƴ 13′28	6.11635 AU
conjunction	-1896 Oct 30 j 13:01	22° ≏ 24'52	0°48'18	morning rise	-1890 May 09 j 06:13	20° Y 56′04	
minimum elong	-1896 Oct 30 j 13:04	22° ≏ 24'53	0°48'18		-1890 Jun 20 j 02:06	9° 8	
morning rise	-1896 Nov 12 j 02:16	25° ≏ 16'33		retrograde	-1890 Sep 13 j 18:30	9° 8 59'24	
	-1896 Dec 03 j 08:03	0° M.		min. Earth dist.	-1890 Nov 11 j 04:55	5° 8 04'20	4.17844 AU
retrograde	-1895 Mar 17 j 03:53	13°M32'28		opposition	-1890 Nov 12 j 06:08	4° 8 55'46	0°-50'-7
opposition	-1895 May 17 j 04:40	8°M38'54	0°43'38		-1889 Jan 03 j 05:31	30° ₹Ƴ	
min. Earth dist.	-1895 May 18 j 05:34	8°M30'56	4.19665 AU	direct	-1889 Jan 10 j 12:14	29° Ƴ 54'41	
direct	-1895 Jul 17 j 08:12	3°M43'01			-1889 Jan 17 j 20:06	9° 8	
	-1895 Oct 17 j 13:54	15° M ₊			-1889 May 01 j 12:15	15° 8	
evening set	-1895 Nov 19 j 05:46	22°M17'44		evening set	-1889 May 17 j 12:34	18° 8 31'10	
conjunction	-1895 Dec 01 j 22:24	25°M15'53	0°08'03	conjunction	-1889 May 31 j 06:16	21° 8 35'30	0°-12'-56

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1889 in astronomical counting style is the year 1890 BCE in historical counting style. -1889 May 31 j 06:16 21°**8**35'31 0°12'55 min. Earth dist. -1883 May 23 j 02:01 13°M 19'36 4.17477 AU minimum elong -1889 May 31 j 01:21 21°832'46 -1883 Jul 22 j 02:13 8°M31'18 behind sun begin direct -1883 Sep 27 j 06:56 15°M -1889 May 31 j 11:12 21° 838'15 behind sun end -1889 Jun 01 j 09:55 21°**8**51'00 6.24190 AU -1883 Nov 23 j 22:54 27°M11'49 max. Earth dist. evening set -1889 Jun 13 j 23:06 24°839'09 -1883 Dec 05 j 21:25 morning rise 0°**∡** -1889 Jul 08 j 15:17 $0^{\circ}\Pi$ -1883 Dec 06 j 16:25 -1889 Sep 27 j 03:55 12°**Д**05'18 0° ₹11'10 0°01'39 asc. node conjunction 0°**∡**11'11 retrograde -1889 Oct 15 j 23:08 12°**Ⅲ**39'40 minimum elong -1883 Dec 06 j 16:25 0°01'37 opposition -1889 Dec 14 j 13:39 7°**Ⅲ**39'33 0°12'24 behind sun begin -1883 Dec 06 j 08:23 0°**х** 06′28 0°**∡**15'53 min. Earth dist. -1889 Dec 14 j 03:58 7°**Ⅱ**42'48 4.30037 AU behind sun end -1883 Dec 07 j 00:27 direct -1888 Feb 13 j 04:43 2°**Ⅱ**36'33 max. Earth dist. -1883 Dec 05 j 20:54 29°M 59'42 6.11395 AU -1888 Jun 19 j 14:06 20° **Ⅲ**44'21 -1883 Dec 19 j 11:06 evening set morning rise 3°**҂**11′27 -1883 Dec 20 j 16:25 desc. node 3°**∡**¹28'35 conjunction -1888 Jul 03 j 02:05 23°**Д**41'42 0°29'15 retrograde -1882 Apr 27 j 13:54 22°**尽** 39'05 minimum elong -1888 Jul 03 j 02:03 23°**Ⅱ**41'41 0°29'17 opposition -1882 Jun 27 j 06:51 17°**х** 41'52 max. Earth dist. -1888 Jul 03 j 04:34 23°**Ⅱ**43'04 6.35119 AU min. Earth dist. -1882 Jun 27 j 11:45 17°**х** 40'16 4.05914 AU morning rise -1888 Jul 16 j 11:19 26°**Ⅲ**37'37 direct -1882 Aug 25 j 20:08 12°**∡**¹48'23 -1888 Aug 01 j 04:01 -1882 Dec 20 j 02:00 0°る retrograde -1888 Nov 14 j 19:14 13°552'02 evening set -1882 Dec 28 j 09:25 1°**る**57'54 8°955'50 opposition -1887 Jan 13 j 18:04 1°08'20 min. Earth dist. -1887 Jan 14 j 00:34 8°953'42 4.38948 AU conjunction -1881 Jan 10 j 08:34 5°₹03'59 0°-42'-18 direct -1887 Mar 16 i 13:02 3°952'22 minimum elong -1881 Jan 10 j 08:31 5°**る**03'57 0°42'22 evening set -1887 Jul 22 j 00:06 21°541'28 max. Earth dist. -1881 Jan 10 i 15:44 5°る08'16 6.01714 AU max. Earth dist. -1887 Aug 03 j 03:58 24°520'01 6.41290 AU morning rise -1881 Jan 23 j 10:38 8°중11'41 retrograde -1881 Jun 04 j 03:31 28°중28'12 -1887 Aug 04 j 03:13 24°532'41 1°01'43 -1881 Aug 03 j 11:05 23°₹26'58 -1°-30'-8 conjunction opposition -1887 Aug 04 j 03:10 24°532'40 -1881 Aug 02 j 18:45 23°る32'24 3.99186 AU 1°01'44 min. Earth dist. minimum elong -1887 Aug 17 j 03:15 27°522'20 -1881 Sep 30 j 19:03 18°る33'37 morning rise direct -1887 Aug 29 j 09:29 0°**Ω** -1881 Dec 29 j 17:18 0°≈≈ -1887 Dec 15 j 08:09 $14^{\circ}\Omega 16'11$ -1880 Feb 02 j 15:36 retrograde evening set 8°≈00'57 -1886 Feb 13 j 15:25 9°**Ω**23'03 1°43'54 opposition -1886 Feb 14 j 14:07 9°**Ω**15'44 4.42136 AU -1880 Feb 15 j 22:12 11°≈11'42 -1°-11'-22 min. Earth dist. conjunction -1886 Apr 17 j 05:32 4°Ω20'22 minimum elong -1880 Feb 15 j 22:10 11°≈11'40 1°11'24 direct -1886 Jul 19 j 08:34 15°**Ω** -1880 Feb 17 j 09:58 11°≈33'09 max. Earth dist. 5.98479 AU -1886 Aug 22 j 06:22 22°**Ω**03'57 -1880 Feb 29 j 08:01 14°≈24'08 evening set morning rise -1886 Sep $02 \text{ j } 09:11 \quad 24^{\circ} \Omega 29'45 \quad 6.41138 \text{ AU}$ -1880 Mar 02 j 20:26 15°≈ max. Earth dist. -1880 May 14 j 10:15 0°**∀** conjunction -1886 Sep 04 j 01:38 $24^{\circ}\Omega51'56$ 1°16'41 retrograde -1880 Jul 10 j 15:12 4°**¥**52'15 -1886 Sep 04 j 01:38 24° **Ω**51'55 -1880 Sep 06 j 23:09 30°R≈ minimum elong morning rise -1886 Sep 16 j 18:03 27°**Ω**38'36 min. Earth dist. -1880 Sep 07 j 06:00 29°≈57'41 3.99958 AU -1886 Sep 27 j 15:40 0° Mp opposition -1880 Sep 08 j 11:05 29°≈47'49 -1°-53'-56 -1885 Jan 15 j 08:13 14° M 39'04 -1880 Nov 05 j 09:48 24°≈52'25 retrograde direct -1885 Mar 17 j 01:13 9° m 47'24 1°51'09 -1879 Jan 01 j 14:29 0°**光** opposition min. Earth dist. -1885 Mar 18 j 08:46 9° m 37'19 4.38775 AU -1879 Mar 10 j 21:22 14° **₭** 16'56 evening set -1885 May 18 j 17:05 4° Mp 46'32 direct evening set -1885 Sep 22 i 02:44 22° m 38'19 conjunction -1879 Mar 24 j 11:21 17° **★** 28'51 -1°-13'-2 max. Earth dist. -1885 Oct 02 j 19:43 25° m 01'20 6.34752 AU minimum elong -1879 Mar 24 i 11:23 17° **★** 28'52 1°13'02 max. Earth dist. -1879 Mar 26 j 14:11 17° ¥ 58'48 6.03059 AU -1885 Oct 04 j 17:23 25° m 26'51 1°10'26 conjunction morning rise -1879 Apr 07 i 03:55 20° \(\frac{1}{41}\)'56 -1885 Oct 04 i 17:24 25° m 26'52 1°10'26 -1879 May 19 i 01:40 0°**Υ** minimum elong retrograde -1885 Oct 17 j 06:06 28° m 14'38 -1879 Aug 15 j 13:22 10°**Υ**36'15 morning rise -1885 Oct 25 j 04:57 min. Earth dist. -1879 Oct 12 j 18:23 5°**Υ**41'58 4.07871 AU 0∘ଫ -1884 Feb 16 j 18:46 15° **2**47'24 -1879 Oct 14 j 02:15 5° **Y**31'05 -1°-33'-52 retrograde opposition 0°Υ32'32 opposition -1884 Apr 17 j 17:34 10°**♀**55'30 1°27'05 direct -1879 Dec 11 j 10:26 min. Earth dist. -1884 Apr 19 j 02:27 10° **△**45'03 4.29723 AU evening set -1878 Apr 16 j 19:28 19°**Y**34'47 direct -1884 Jun 18 j 20:19 5°**♀**57'16 -1884 Oct 22 j 09:26 24°**£**09'15 conjunction -1878 Apr 30 j 13:45 22°**Y**43'56 0°-47'-37 evening set -1884 Nov 02 j 07:17 26°**△**38'54 6.23781 AU -1878 Apr 30 j 13:48 22°**Y**43'58 max. Earth dist. minimum elong 0°47'37 -1878 May 02 j 10:13 23°**Y**09'27 max. Earth dist. 6.13581 AU -1878 May 14 j 09:02 25°**Υ**53'17 -1884 Nov 03 j 23:31 27°**Ω**01'59 0°43'25 conjunction morning rise -1884 Nov 03 j 23:34 27°**♀**02'00 -1878 Jun 01 j 18:14 minimum elong 0°43'25 0°8 morning rise -1884 Nov 16 j 13:27 29°**♀**54'50 retrograde -1878 Sep 18 j 08:31 14°**8**46'44 -1884 Nov 16 j 22:32 0°M opposition -1878 Nov 16 j 20:37 9°**8**43'29 0°-41'-40 -1883 Feb 02 j 13:17 15°M min. Earth dist. -1878 Nov 15 j 21:57 9°**8**51'11 4.19809 AU retrograde -1883 Mar 22 j 03:26 18°M20'43 direct -1877 Jan 15 j 07:56 4°**8**42'03

-1877 Apr 13 j 13:53 15°8

evening set

-1877 May 22 j 08:40 23°**8**13'30

-1883 May 09 j 19:17 15°RM

opposition

-1883 May 22 j 03:37 13°M26'47 0°34'59

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1877 in astronomical counting style is the year 1878 BCE in historical counting style. -1877 Jun 05 j 02:00 26°**8**16'52 0°-6'-54 retrograde -1871 Mar 27 i 04:31 23°ML11'19 conjunction -1877 Jun 05 j 02:00 26°**8**16'52 0°06'53 -1871 May 27 j 03:32 18° ML17'03 0°25'59 minimum elong opposition behind sun begin -1877 Jun 04 j 18:18 26°812'35 min. Earth dist. -1871 May 28 j 00:15 18° ML10'24 4.15770 AU -1871 Jun 24 j 05:02 15° R ML -1877 Jun 05 j 09:42 26°**8**21'09 behind sun end -1877 Jun 06 j 03:21 26°\(\mathbf{2}31'01\) 6.26041 AU direct -1871 Jul 26 j 22:20 13°M21'57 max. Earth dist. -1877 Jun 18 j 17:53 29°**8**19'20 -1871 Aug 28 j 06:41 morning rise 15°M -1877 Jun 21 j 19:32 -1871 Oct 30 j 08:49 Π °0 desc. node 25°M27'55 -1871 Nov 19 j 15:10 asc. node -1877 Aug 07 j 08:24 9°**Ⅲ**32'37 0°**∡**¹ -1871 Nov 28 j 16:30 retrograde -1877 Oct 20 j 06:34 17°**Ⅲ**11'49 evening set 2°**∡**¹06′22 opposition -1877 Dec 18 j 22:51 12°**Ⅲ**12'16 0°20'58 0°-4'-51 min. Earth dist. -1877 Dec 18 j 14:50 12°**I**I14'57 4.31632 AU conjunction -1871 Dec 11 j 10:33 5°**∡**06'38 -1876 Feb 17 j 17:32 7°**Ⅱ**09'10 -1871 Dec 11 j 10:32 direct minimum elong 5°**∡**¹06'38 0°04'54 -1876 Jun 24 j 04:16 25°**Ⅲ**13'24 -1871 Dec 11 j 02:42 evening set behind sun begin 5°**∡**02'02 -1871 Dec 11 j 18:23 behind sun end 5°**х** 11′14 conjunction -1876 Jul 07 j 14:57 28°**Д**09'46 0°34'33 max. Earth dist. -1871 Dec 10 j 17:45 4°**∡**¹56'44 6.09925 AU morning rise minimum elong -1876 Jul 07 j 14:55 28°**Ⅲ**09'45 0°34'36 -1871 Dec 24 j 06:17 8°**∡**07'58 max. Earth dist. -1876 Jul 07 j 11:57 28°**耳**08'07 6.36336 AU retrograde -1870 May 02 j 17:56 27°**尽** 43'02 -1876 Jul 16 j 00:23 0ಂತಾ opposition -1870 Jul 02 j 11:07 22° ₹ 45'12 0°-41'-20 morning rise -1876 Jul 20 j 23:05 1°504'41 min. Earth dist. -1870 Jul 02 j 11:50 22°**√** 44'58 4.04836 AU retrograde -1876 Nov 19 j 01:46 18°5014'42 direct -1870 Aug 30 j 19:10 17° ₹ 51'51 opposition -1875 Jan 18 j 01:04 13°5519'00 1°14'43 -1870 Dec 02 j 16:40 0°궁 min. Earth dist. -1875 Jan 18 i 11:02 13°5515'44 4.39729 AU evening set -1869 Jan 02 i 08:44 7°る03'44 direct -1875 Mar 21 i 00:32 8°9515'31 evening set -1875 Jul 26 i 09:38 26°503'14 conjunction -1869 Jan 15 j 08:52 10°る10'27 0°-47'-36 max. Earth dist. -1875 Aug 07 j 09:58 28°539'50 6.41566 AU minimum elong -1869 Jan 15 j 08:49 10°る10'26 0°47'40 max. Earth dist. -1869 Jan 15 j 21:34 10°る18'04 6.01120 AU -1875 Aug 08 j 11:44 28°\$53'52 1°04'58 -1869 Jan 28 j 11:46 13°る18'49 conjunction morning rise -1875 Aug 08 j 11:41 28°553'51 -1869 Apr 21 j 05:45 minimum elong 1°04'59 0°≈≈ -1875 Aug 13 j 13:05 0°**Ω** -1869 Jun 09 j 09:53 3°≈38'16 retrograde -1869 Jul 29 j 01:59 30°R 궁 -1875 Aug 21 j 10:28 1°**Ω**42'55 morning rise -1875 Oct 31 j 05:33 15°**Ω** -1869 Aug 08 j 15:38 28°₹36'28 -1°-35'-51 opposition min. Earth dist. -1875 Dec 19 j 13:31 18°**Ω**36'25 -1869 Aug 07 j 21:45 28°정42'26 3.99154 AU retrograde -1874 Feb 07 j 22:52 15°R**Ω** -1869 Oct 05 j 22:41 23°₹42'55 direct -1874 Feb 17 j 23:08 13° Ω 43'33 1°46'42 -1869 Dec 08 j 20:04 0°≈ opposition -1874 Feb 18 j 22:48 13° Ω 35'56 4.41924 AU -1868 Feb 07 j 18:39 13°≈09'49 min. Earth dist. evening set -1874 Apr 21 j 13:26 8° **Ω**41'03 -1868 Feb 15 j 11:16 15°≈ direct -1874 Jun 29 j 17:08 15°**Ω** evening set -1874 Aug 26 j 13:53 26°**\O**25'29 conjunction -1868 Feb 21 j 02:12 16°≈20'44 -1°-13'-20 max. Earth dist. -1874 Sep 06 j 14:23 $28^{\circ}\Omega 50'21$ 6.40444 AU minimum elong -1868 Feb 21 j 02:11 16°≈20'44 1°13'23 max. Earth dist. -1868 Feb 22 j 17:02 16°≈43'58 5.98983 AU conjunction -1874 Sep 08 j 08:15 29° Ω 13'22 1°17'06 morning rise -1868 Mar 05 j 13:02 19°≈33'21 -1874 Sep 08 j 08:15 29° Ω 13'22 1°17'07 -1868 Apr 21 j 07:41 0°**∀** minimum elong -1874 Sep 11 j 21:04 retrograde -1868 Jul 15 j 16:07 9°**)** 57'54 -1874 Sep 20 j 23:57 2° m 00'01 min. Earth dist. -1868 Sep 12 j 04:36 5°**)** 63'36 4.00967 AU morning rise -1873 Jan 19 j 19:40 19° Mp 04'04 -1868 Sep 13 j 11:08 4°**)** 53'14 -1°-53'-37 retrograde opposition -1873 Mar 21 j 12:58 14° m 12'29 -1868 Nov 05 j 10:55 30°R≈ opposition -1873 Mar 22 j 22:05 14° m 01'56 min. Earth dist. 4.37643 AU direct -1868 Nov 10 j 09:31 29°≈57'27 -1873 May 23 i 04:55 direct 9° m 11'57 -1868 Nov 15 i 08:08 0°**∀** evening set -1873 Sep 26 i 10:59 27° m 06'28 evening set -1867 Mar 16 j 00:05 19° **∺** 18'51 -1873 Oct 07 j 02:53 29° m 29'26 max. Earth dist. 6.33271 AU conjunction -1867 Mar 29 j 14:45 22° ★ 30'28 -1°-10'-56 -1873 Oct 09 j 01:19 29° m 55'28 1°07'48 minimum elong -1867 Mar 29 j 14:47 22° **)** 30'29 1°10'57 conjunction max. Earth dist. -1873 Oct 09 j 01:21 29° m 55'29 1°07'48 -1867 Mar 31 j 16:12 22° **€** 59'31 6.04451 AU minimum elong morning rise -1873 Oct 09 j 09:25 0∘∙თ -1867 Apr 12 j 08:00 25° \ 43'11 morning rise -1873 Oct 21 j 14:04 2°**£**43′50 -1867 May 01 j 00:37 -1872 Feb 21 j 11:07 20°**£**23'29 retrograde retrograde -1867 Aug 20 j 06:44 15°**Υ**29'33 -1867 Oct 18 j 19:52 10° **Y**24'29 -1° -28'-8 opposition -1872 Apr 22 j 11:04 15°**Ω**31'22 1°21'15 opposition -1872 Apr 23 j 18:15 15°**£**21'26 4.28003 AU min. Earth dist. -1867 Oct 17 j 13:22 10°**Υ**'34'55 4.09478 AU min. Earth dist. 5°**Y**25'30 -1872 Jun 23 j 09:52 10°**♀**33'32 -1867 Dec 16 j 07:38 direct direct -1872 Oct 26 j 21:23 28°**♀**49'33 -1866 Apr 21 j 18:06 24°**Y**23′29 evening set evening set -1872 Nov 01 j 00:31 0°M max. Earth dist. -1872 Nov 06 j 23:22 1°M22'08 6.21998 AU conjunction -1866 May 05 j 12:45 27° **Y** 32'01 0°-42'-36 minimum elong -1866 May 05 j 12:48 27°**Y**32'02 0°42'36 conjunction -1872 Nov 08 j 11:51 1°M43'09 0°38'12 max. Earth dist. -1866 May 07 j 08:02 27°**Υ**56'44 6.15287 AU minimum elong -1872 Nov 08 j 11:54 1°ML43'10 0°38'10 -1866 May 16 j 08:18 0°8 morning rise -1872 Nov 21 j 02:08 4°M36'56 morning rise -1866 May 19 j 07:46 0°840'32

-1866 Jul 30 j 13:23 15°8

-1871 Jan 08 j 18:50 15°M

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1866 in astronomical counting style is the year 1867 BCE in historical counting style. retrograde -1866 Sep 22 j 20:02 19°**8**25'20 -1860 Oct 15 j 21:22 0°M -1866 Nov 16 j 17:26 15°R8 -1860 Oct 31 j 08:49 3°M29'35 evening set -1866 Nov 20 j 11:13 14°**8**29'41 4.21446 AU min. Earth dist. -1866 Nov 21 j 08:05 14°**8**22'38 0°-33'-13 conjunction -1860 Nov 12 j 23:32 6°M23'56 0°32'44 opposition -1865 Jan 19 j 22:52 -1860 Nov 12 j 23:34 0°32'43 direct 9°**8**20'58 minimum elong 6°M23'58 15°8 -1860 Nov 11 j 12:20 -1865 Mar 23 j 18:43 max. Earth dist. 6°M03'37 6.20464 AU 27°**8**48'48 evening set -1865 May 27 j 02:21 morning rise -1860 Nov 25 j 14:27 9°M18'38 -1865 Jun 05 j 22:46 $0^{\circ}\Pi$ -1860 Dec 21 j 00:32 15°M 28° M.00'41retrograde -1859 Apr 01 j 02:50 conjunction -1865 Jun 09 j 18:54 0°**П**51'16 0°00'-57 opposition -1859 Jun 01 j 02:24 23°M 05'56 0°16'51 minimum elong -1865 Jun 09 j 18:55 0°**耳**51'17 0°00'57 min. Earth dist. -1859 Jun 01 j 19:49 23°M 00'19 4.14276 AU -1865 Jun 09 j 10:36 0°**Ⅱ**46'40 -1859 Jul 31 j 15:42 18°ML11'07 behind sun begin direct -1859 Sep 09 j 12:09 behind sun end -1865 Jun 10 j 03:14 0°**I**I55'53 desc. node 20° M $_{3}8'19$ max. Earth dist. -1865 Jun 10 j 14:52 1°**Ⅱ**02'22 6.27483 AU -1859 Nov 02 j 13:30 0°**∡**¹ asc. node -1865 Jun 18 j 11:24 2°**Ⅱ**47'08 evening set -1859 Dec 03 j 09:07 6°**х** 58′55 morning rise -1865 Jun 23 j 10:10 3°**Ⅲ**52'50 retrograde -1865 Oct 24 j 13:42 21°**I**39'00 conjunction -1859 Dec 16 j 03:54 10° ₹ 00'03 0°-11'-10 opposition -1865 Dec 23 j 06:26 16°**Ⅱ**40'02 0°29'12 minimum elong -1859 Dec 16 j 03:53 10° ₹ 00'02 0°11'13 min. Earth dist. -1865 Dec 23 j 01:29 16°**Ⅱ**41'41 4.32787 AU behind sun begin -1859 Dec 15 j 21:52 9°×756'29 direct -1864 Feb 22 j 05:46 11°**Д**36'48 behind sun end -1859 Dec 16 j 09:54 10° ₹03'35 evening set -1864 Jun 28 j 16:54 29°**Ⅲ**39'05 max. Earth dist. -1859 Dec 15 j 15:27 9°**∡** 52'41 6.08604 AU -1864 Jun 30 i 07:24 morning rise -1859 Dec 29 i 00:23 13° ₹ 02'18 -1858 Mar 26 i 07:57 0°정 conjunction -1864 Jul 12 j 02:41 2°534'43 0°39'35 retrograde -1858 May 07 j 22:36 2°る44'18 -1864 Jul 12 i 02:39 2°534'42 0°39'36 -1858 Jun 19 j 20:17 30°R ✓ minimum elong max. Earth dist. -1864 Jul 11 j 21:26 2°931'50 -1858 Jul 07 j 13:41 27° **₹** 45'55 6.37131 AU opposition 0°-50'-15 -1864 Jul 25 j 09:27 -1858 Jul 07 j 12:47 27° **₹** 46'13 morning rise 5°928'48 min Earth dist 4 03798 AU -1864 Nov 23 j 06:44 22°535'56 -1858 Sep 04 j 18:38 22° ₹ 52'38 retrograde direct -1863 Jan 22 j 07:44 17°5540'47 1°20'37 -1858 Nov 12 j 20:23 0°る opposition -1863 Jan 22 j 19:08 17°537'03 4.40142 AU -1857 Jan 07 j 07:14 12°る07'07 min. Earth dist. evening set -1863 Mar 25 j 09:00 12°\$37'27 direct -1863 Jul 28 j 20:50 -1857 Jan 20 j 08:17 15°₹14'33 0°-52'-32 conjunction $0^{\circ}\Omega$ -1857 Jan 20 j 08:14 15°**⋜**14'31 0°52'34 -1863 Jul 30 j 18:54 0°**Ω**24'52 evening set minimum elong -1857 Jan 21 j 00:17 15°る24'09 max. Earth dist. 6.00452 AU -1863 Aug 12 j 19:41 3°Ω15'01 1°07'48 -1857 Feb 02 j 12:19 18°**중**23'40 conjunction morning rise -1863 Aug 12 j 19:39 -1857 Mar 27 j 00:37 minimum elong $3^{\circ}\Omega 15'00 \quad 1^{\circ}07'50$ 0°≈ -1863 Aug 11 j 14:17 2°**Ω**58'59 -1857 Jun 14 j 14:06 max. Earth dist. 6.41556 AU retrograde 8°≈46'07 morning rise -1863 Aug 25 j 17:28 6°**Ω**03'40 opposition -1857 Aug 13 j 18:28 3°**≈**43'51 -1°-40'-51 -1863 Oct 08 j 13:55 15°**Ω** min. Earth dist. -1857 Aug 12 j 21:58 3°≈50'43 3.98962 AU retrograde -1863 Dec 23 j 22:00 22°**Ω**57'50 -1857 Sep 14 j 14:48 30°R♂ opposition -1862 Feb 22 j 07:44 18° Ω 05'17 1°48'54 direct -1857 Oct 10 j 22:27 28°중50'05 min. Earth dist. -1862 Feb 23 j 09:46 $17^{\circ}\Omega$ 56'55 4.41520 AU -1857 Nov 06 j 05:19 -1862 Mar 20 j 06:20 15°R*Q* -1856 Jan 29 j 21:18 15°≈ -1862 Apr 26 j 00:11 13° **Ω**03'01 -1856 Feb 12 j 21:17 18°≈17'31 direct evening set -1862 Jun 01 j 20:21 15°**Ω** -1862 Aug 27 j 04:13 conjunction -1856 Feb 26 i 05:49 21°≈28'46 -1°-14'-45 -1856 Feb 26 i 05:48 21°≈28'45 1°14'47 evening set -1862 Aug 30 j 21:35 0° m 48'39 minimum elong -1856 Feb 27 j 21:58 21°≈52'46 5.99254 AU max. Earth dist. -1862 Sep 10 j 20:59 3° m 13'14 6.39669 AU max. Earth dist. morning rise -1856 Mar 10 j 17:43 24°≈41'41 conjunction -1862 Sep 12 j 15:19 3° m 36'33 1°17'04 -1856 Apr 02 i 14:47 0°₩ retrograde -1862 Sep 12 j 15:19 3°m36'33 1°17'04 -1856 Jul 20 j 16:34 15° **)** 03'40 minimum elong -1862 Sep 25 j 06:17 6° m 23'14 min. Earth dist. -1856 Sep 17 j 03:55 10° **★** 09'13 4.01664 AU morning rise -1861 Jan 24 j 05:34 23° M 31'02 -1856 Sep 18 j 10:45 9°**)** 58'43 -1°-52'-30 retrograde opposition opposition -1861 Mar 26 j 01:13 18° m 39'28 1°47'28 direct -1856 Nov 15 j 10:06 5°**₩**02'27 min. Earth dist. -1861 Mar 27 j 09:28 18° m 29'12 4.36561 AU evening set -1855 Mar 21 j 03:13 24° **∺**22'01 direct -1861 May 27 j 14:51 13° m 39'18 -1861 Sep 23 j 13:56 0∘ଫ conjunction -1855 Apr 03 j 18:54 27°**米** 33'33 -1°-8'-19 -1861 Sep 30 j 19:33 -1855 Apr 03 j 18:56 27° ★33'35 1°08'20 evening set 1°**♀**36'10 minimum elong -1861 Oct 11 j 12:36 4°**₽**00'15 -1855 Apr 05 j 21:37 28°**米**03'15 max. Earth dist. 6.31966 AU max. Earth dist. 6.05521 AU $0^{\circ}\Upsilon$ -1855 Apr 14 j 05:29 -1861 Oct 13 j 09:37 4°**Ω**25'34 -1855 Apr 17 j 12:36 0°**Y**45'59 conjunction 1°04'45 morning rise minimum elong -1861 Oct 13 j 09:39 4°**£**25'36 1°04'45 retrograde -1855 Aug 25 j 02:19 20° Υ 25'23 morning rise -1861 Oct 25 j 22:17 7°**£**14'28 min. Earth dist. -1855 Oct 22 j 08:40 15°**Y**30'33 4.10789 AU retrograde -1860 Feb 26 j 05:09 25° **2**00'19 opposition -1855 Oct 23 j 14:06 15° **Y**20'31 -1°-21'-45 opposition -1860 Apr 27 j 04:47 20°**♀**08'01 1°14'52 direct -1855 Dec 21 j 04:33 10° **Y**21'06

min. Earth dist.

direct

-1860 Apr 28 j 11:46 19°**♀**58'09

-1860 Jun 28 j 01:40 15°**♀**10'33

4.26524 AU

evening set

-1854 Apr 26 j 18:37

-1854 Apr 30 j 00:26

29°Y15'54

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1854 in astronomical counting style is the year 1855 BCE in historical counting style. opposition -1854 May 10 j 13:16 2°**8**23'50 0°-37'-14 -1848 May 01 j 20:09 24° **2**38'12 1°08'09 conjunction -1854 May 10 j 13:18 2°**8**23'52 min. Earth dist. -1848 May 03 j 01:10 24° \$\oldsymbol{\Omega}28'58 4.25488 AU minimum elong 0°37'13 -1854 May 12 j 04:51 2°**8**46'22 -1848 Jul 02 j 12:56 19°**£**41'08 max. Earth dist. 6.16727 AU direct -1848 Sep 29 j 00:04 morning rise -1854 May 24 j 08:19 5°**8**31'41 0°M -1854 Jul 07 j 19:58 15°**8** -1848 Nov 04 j 17:38 evening set 8°M01'54 -1854 Sep 27 j 08:26 24°**8**08'38 -1848 Nov 15 j 23:38 retrograde max. Earth dist. 10°M₃37'46 6.19298 AU -1854 Nov 25 j 21:13 19°**8**06'21 opposition 0°-24'-26 -1854 Nov 25 j 02:05 19°**8**12'49 -1848 Nov 17 j 08:35 10°M 56'51 0°27'14 min. Earth dist. 4.22876 AU conjunction -1848 Nov 17 j 08:37 10°M 56'52 -1854 Dec 31 j 18:19 15°R**8** minimum elong 0°27'13 -1848 Nov 29 j 23:56 direct -1853 Jan 24 j 16:23 14°**8**04'21 morning rise 13°M52'15 -1853 Feb 17 j 21:52 15°**8** -1848 Dec 04 j 22:04 15°M 25°**8**17'46 -1847 Feb 22 j 14:31 asc. node -1853 Apr 28 j 02:14 0°⊀ -1847 Apr 05 j 23:38 -1853 May 20 j 13:10 Π $^{\circ}0$ retrograde 2°**∡**¹40'55 evening set -1853 May 31 j 21:58 $2^{\circ}\Pi 29'06$ -1847 May 18 j 20:03 30°RM opposition -1847 Jun 05 j 21:47 27° ML 45'46 0°07'51 conjunction -1853 Jun 14 j 14:00 5°**Ⅲ**30'47 0°05'11 min. Earth dist. -1847 Jun 06 j 14:25 27°M-40'24 4.13039 AU minimum elong -1853 Jun 14 j 14:00 5°**Ⅲ**30'47 0°05'14 desc. node -1847 Jul 22 j 11:18 23°ML09'42 behind sun begin -1853 Jun 14 j 05:59 5°**I**I26'21 direct -1847 Aug 05 j 08:02 22°M51'12 behind sun end -1853 Jun 14 j 22:01 5°**Ⅲ**35'12 -1847 Oct 14 j 15:59 0°×7 max. Earth dist. -1853 Jun 15 j 07:36 5°**Ⅱ**40'33 6.28823 AU evening set -1847 Dec 07 j 22:16 11° ₹ 41'54 morning rise -1853 Jun 28 j 04:11 8°**Ⅲ**31'22 retrograde -1853 Oct 28 j 23:26 26° II 11'26 conjunction -1847 Dec 20 i 17:44 14° ₹ 43'50 0°-17'-12 opposition -1853 Dec 27 i 16:29 21° II 13'05 0°37'28 minimum elong -1847 Dec 20 j 17:43 14°**х** 43'49 0°17'16 min. Earth dist. -1853 Dec 27 i 13:28 21°**Ⅱ**14'05 4.33946 AU max. Earth dist. -1847 Dec 20 i 07:35 14°**₹**37'49 6.07409 AU direct -1852 Feb 26 j 19:42 16° **П**09'50 morning rise -1846 Jan 02 j 15:10 17° **₹** 47'02 -1852 Jun 13 j 18:47 -1846 Feb 28 j 03:59 0°궁 0ಂತಾ -1852 Jul 03 j 07:44 4°909'46 -1846 May 12 j 21:30 7°る35'40 retrograde evening set opposition -1846 Jul 12 j 12:07 2°**ප**36'50 0°-58'-32 -1852 Jul 16 j 16:11 7°504'31 0°44'30 min. Earth dist. -1846 Jul 12 j 08:31 2°る38'01 4.02776 AU conjunction -1852 Jul 16 j 16:08 7°9504'29 0°44'32 -1846 Aug 02 j 12:31 30°R ✓ minimum elong -1846 Sep 09 j 12:12 27° **₹** 43'38 -1852 Jul 16 j 06:47 6°959'22 6.38033 AU max. Earth dist. direct -1852 Jul 29 j 21:48 -1846 Oct 16 j 23:13 0°る 9°957'44 morning rise -1852 Nov 27 j 14:42 27°501'32 -1845 Jan 12 j 02:19 17°**⋜**01'14 evening set retrograde -1851 Jan 26 j 16:40 22°506'48 1°26'12 opposition -1845 Jan 25 j 04:16 20°**⋜**09'25 0°-56'-54 -1851 Jan 27 j 06:11 22°502'24 4.40781 AU min. Earth dist. conjunction -1845 Jan 25 j 04:13 20°**⋜**09'23 0°56'57 -1851 Mar 29 j 21:20 17°503'34 direct minimum elong -1851 Jul 12 j 09:21 -1845 Jan 25 j 22:28 20°중20'21 5.99681 AU 0 $^{\circ}\Omega$ max. Earth dist. evening set -1851 Aug 04 j 05:28 4°**Ω**49'33 morning rise -1845 Feb 07 j 09:23 23°중19'20 max. Earth dist. -1851 Aug 15 j 23:34 7°**Ω**22'56 6.41899 AU -1845 Mar 08 j 06:12 retrograde -1845 Jun 19 j 15:18 13°≈45'39 conjunction -1851 Aug 17 j 05:13 7°**Ω**39'06 1°10'20 opposition -1845 Aug 18 j 17:45 8°≈42'58 -1°-44'-58 -1851 Aug 17 j 05:11 7°**Ω**39'05 1°10'22 min. Earth dist. -1845 Aug 17 j 19:58 8°≈50'17 3.98538 AU minimum elong -1851 Aug 30 j 01:38 10°Ω27'06 direct -1845 Oct 15 j 20:13 3°≈48'57 morning rise -1851 Sep 20 j 11:39 15°**Ω** -1844 Jan 12 j 11:51 15°≈ retrograde -1851 Dec 28 j 04:44 27° **Ω**20'39 -1844 Feb 17 j 21:21 23°≈18'18 evening set -1850 Feb 26 j 17:18 $22^{\circ}\Omega 28'21$ 1°50'30 opposition -1850 Feb 27 j 19:27 22° Ω 19'58 4.41572 AU -1844 Mar 02 j 07:10 26°≈30'06 -1°-15'-34 min. Earth dist. conjunction -1844 Mar 02 j 07:09 26°≈30'05 1°15'35 direct -1850 Apr 30 j 10:04 $17^{\circ}\Omega 26'23$ minimum elong -1850 Aug 10 j 20:14 0° m max. Earth dist. -1844 Mar 04 i 02:35 26°≈56'01 5.99228 AU -1850 Sep 04 i 05:20 5° m 11'22 morning rise -1844 Mar 15 i 19:59 29°≈43'27 evening set max. Earth dist. -1850 Sep 15 j 02:24 7° m 34'54 6.39417 AU -1844 Mar 16 i 23:58 0°**₩** -1844 Jul 25 j 16:21 20° **H** 04'04 retrograde -1850 Sep 16 j 22:05 7° m 59'00 1°16'37 min. Earth dist. -1844 Sep 22 j 01:07 15°\(\mathbf{H}\)09'33 4.02055 AU conjunction -1844 Sep 23 j 07:58 14° **★** 59'02 -1°-50'-36 minimum elong -1850 Sep 16 j 22:06 7° m 59'00 1°16'38 opposition morning rise -1850 Sep 29 j 12:31 10° mp 45'32 direct -1844 Nov 20 j 07:20 10° **米** 02′26 -1849 Jan 28 j 17:11 27° **m** 55'29 retrograde evening set -1843 Mar 26 j 05:11 29°**∺**21'38 $0^{\circ}\Upsilon$ opposition -1849 Mar 30 j 13:22 23° m 03'55 1°44'40 -1843 Mar 28 j 23:08 -1849 Mar 31 j 22:35 22° m 53'21 4.36004 AU min. Earth dist. -1849 Jun 01 j 03:18 18° Mp 04'05 -1843 Apr 08 j 21:32 2°**Y**'33'11 -1°-5'-13 direct conjunction -1849 Sep 07 j 05:51 -1843 Apr 08 j 21:35 2°**Y**33'13 1°05'14 0∘**⊽** minimum elong -1843 Apr 10 j 23:05 3°**Y**′02′07 6.06290 AU evening set -1849 Oct 05 j 02:18 6°**₽**01'20 max. Earth dist. max. Earth dist. -1849 Oct 15 j 19:55 8°**£**26′00 6.31150 AU morning rise -1843 Apr 22 j 16:04 5°**Y**45'35

retrograde

opposition

direct

min. Earth dist.

conjunction

morning rise

retrograde

minimum elong

-1849 Oct 17 j 16:13

-1849 Oct 17 j 16:16

-1849 Oct 30 j 04:47 11°**Ω**40'12

-1848 Mar 01 j 18:29 29° **2**30'46

8°**£**50'58 1°01'23

1°01'22

8°**£**51′00

-1843 Aug 29 j 19:26 25°**Υ**19'11

-1843 Oct 28 j 07:17 20° \bullet \bullet 14'31

-1843 Dec 26 j 00:13 15° \begin{pmatrix} \gamma \text{14'43} \]

-1842 Apr 13 j 05:40

-1843 Oct 27 j 02:00 20°**Υ**24'31 4.11852 AU

-1°-14'-53

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 6 Attention, astronomical year style is used: The year -1842 in astronomical counting style is the year 1843 BCE in historical counting style.

Attention, astronom	nical year style is used: Tl	ne year -1842	in astronomical co	unting style is the year	r 1843 BCE in historical of	counting style.	-
evening set	-1842 May 01 j 18:15	4° 8 07'10			-1837 Aug 19 j 13:47	0∘ ⊽	
				evening set	-1837 Oct 09 j 10:19	10° ≏ 30'11	
conjunction	-1842 May 15 j 13:04	7° 8 14'36	0°-31'-37	max. Earth dist.	-1837 Oct 20 j 03:34	12° ≏ 55'12	6.29687 AU
minimum elong	-1842 May 15 j 13:06	7° 8 14'38	0°31'37				
max. Earth dist.	-1842 May 17 j 03:21	7° 8 36'20	6.18026 AU	conjunction	-1837 Oct 22 j 00:00	13° ≏ 20'21	0°57'37
morning rise	-1842 May 29 j 07:46	10° 8 21'45		minimum elong	-1837 Oct 22 j 00:03	13° ≏ 20′23	0°57'35
	-1842 Jun 19 j 08:05	15° 8		morning rise	-1837 Nov 03 j 12:49	16° ≏ 10'15	
retrograde	-1842 Oct 01 j 22:35				-1836 Jan 13 j 04:56	0° M	
opposition	-1842 Nov 30 j 10:10	23° 8 49'34	0°-15'-32	retrograde	-1836 Mar 06 j 14:02	4°M07'59	
min. Earth dist.	-1842 Nov 29 j 17:06	23° 8 55'19	4.24262 AU		-1836 Apr 30 j 17:03	30° ₹ Ω	
direct	-1841 Jan 29 j 10:05	18° 8 47'19		opposition	-1836 May 06 j 14:25		1°00'53
asc. node	-1841 Mar 07 j 15:50			min. Earth dist.	-1836 May 07 j 19:09		4.23761 AU
	-1841 May 02 j 23:55	Π $^{\circ}0$		direct	-1836 Jul 07 j 04:16	24° £ 18′21	
evening set	-1841 Jun 05 j 17:00	7° Ⅱ 08'48			-1836 Sep 08 j 10:34	0° M	
				evening set	-1836 Nov 09 j 05:38	12°M43'11	
conjunction	-1841 Jun 19 j 08:11	10° Ⅱ 09'34	0°11'11		-1836 Nov 19 j 01:52	15°M	
minimum elong	-1841 Jun 19 j 08:10	10° Ⅱ 09'33	0°11'13				
behind sun begin	-1841 Jun 19 j 02:09	10° Ⅱ 06′14		conjunction	-1836 Nov 21 j 21:10		0°21'22
behind sun end	-1841 Jun 19 j 14:11	10° Ⅱ 12'52		minimum elong	-1836 Nov 21 j 21:11	15°M39'08	0°21'21
max. Earth dist.	-1841 Jun 19 j 22:40	10° Ⅱ 17'34	6.30180 AU	max. Earth dist.	-1836 Nov 20 j 14:40	15°M21'24	6.17472 AU
morning rise	-1841 Jul 02 j 21:26	13° Ⅱ 09'10		morning rise	-1836 Dec 04 j 13:11	18°M35'35	
	-1841 Oct 12 j 04:59	0∘ ©			-1835 Jan 27 j 03:08	0° ∡ ¹	
retrograde	-1841 Nov 02 j 07:05	0°5642'58		retrograde	-1835 Apr 10 j 23:57	7° ∡ ³33'15	
	-1841 Nov 23 j 07:20	30°R Ⅱ		desc. node	-1835 Jun 01 j 12:48	3° √ 49'37	
opposition	-1840 Jan 01 j 01:49	25° Ⅱ 45′02	0°45'27	opposition	-1835 Jun 10 j 22:04	2° ∡ ³37'38	0°-1'-34
min. Earth dist.	-1840 Jan 01 j 00:23	25° Ⅱ 45'30	4.35164 AU	min. Earth dist.	-1835 Jun 11 j 11:46	2° ₹ 33'13	4.11261 AU
direct	-1840 Mar 02 j 08:37				-1835 Jul 02 j 09:38	30°RM₊	
	-1840 May 26 j 17:30	0ಂಣ		direct	-1835 Aug 10 j 02:20	27°M43'23	
evening set	-1840 Jul 07 j 21:10	8°938'43			-1835 Sep 17 j 05:30	0° ∡ 7	
Č	,			evening set	-1835 Dec 12 j 17:13	16° ∡ ³38'47	
conjunction	-1840 Jul 21 j 04:26	11° © 32'33	0°49'08	8-11	,		
minimum elong	-1840 Jul 21 j 04:24		0°49'10	conjunction	-1835 Dec 25 j 13:25	19° ∡ ¹41'45	0°-23'-25
max. Earth dist.	-1840 Jul 20 j 17:04		6.38996 AU	minimum elong	-1835 Dec 25 j 13:23		0°23'28
morning rise	-1840 Aug 03 j 08:37			max. Earth dist.	-1835 Dec 25 j 06:28		6.05839 AU
	-1840 Nov 01 j 16:53	0° Ω		morning rise	-1834 Jan 07 j 11:53		0.000057110
retrograde	-1840 Dec 01 j 21:17	1° Ω 25'06			-1834 Feb 08 j 04:10	0°ප	
retrograde	-1839 Jan 01 j 00:53			retrograde	-1834 May 18 j 04:06		
opposition	-1839 Jan 31 j 00:37		1°31'14	opposition	-1834 Jul 17 j 16:46		-1°-6'-52
min. Earth dist.	-1839 Jan 31 j 16:02			min. Earth dist.	-1834 Jul 17 j 10:32		4.01576 AU
direct	-1839 Apr 03 j 08:02		4.41401 AC	direct	-1834 Sep 14 j 13:27		4.01370 AC
direct	-1839 Jun 24 j 05:51			evening set	-1833 Jan 17 j 04:15		
evening set	-1839 Aug 08 j 14:21	9° Ω 12'00		evening set	-1055 Jan 17 J 04.15	22 0110)	
max. Earth dist.	-1839 Aug 00 j 14.21 -1839 Aug 20 j 03:31		6.42079 AU	conjunction	-1833 Jan 30 j 07:25	250₹20100	10 11 6
max. Earth dist.	-1639 Aug 20 J 03.31	11 0642 40	0.42079 AO	minimum elong	-1833 Jan 30 j 07:22		
conjunction	-1839 Aug 21 j 12:49	120 000150	1012120	max. Earth dist.	-1833 Jan 31 j 06:54		
3					•		3.96961 AU
minimum elong	-1839 Aug 21 j 12:47 -1839 Sep 03 j 08:18		1-12-29	morning rise	-1833 Feb 12 j 13:35		
morning rise					-1833 Feb 18 j 19:47	0°≈	
	-1839 Sep 04 j 05:35			ratra ara da	-1833 May 04 j 09:29		
, 1	-1839 Nov 29 j 04:03	0°M)		retrograde	-1833 Jun 24 j 23:10		
retrograde	-1838 Jan 01 j 13:07	1° m/42'12		***	-1833 Aug 16 j 01:26		10 401 20
	-1838 Feb 04 j 01:40		1051122	opposition	-1833 Aug 23 j 22:51		
opposition	-1838 Mar 03 j 02:24			min. Earth dist.	-1833 Aug 22 j 23:12		3.98468 AU
min. Earth dist.	-1838 Mar 04 j 06:22		4.41298 AU	direct	-1833 Oct 20 j 23:00	9°≈02'32	
direct	-1838 May 04 j 20:08				-1833 Dec 21 j 22:42		
	-1838 Jul 23 j 16:25	0° m)		evening set	-1832 Feb 23 j 03:26		
evening set	-1838 Sep 08 j 12:08	9° m 33'38			-1832 Feb 29 j 07:28	0° ∀	
max. Earth dist.	-1838 Sep 19 j 08:47	11° Mp 57'10	6.38695 AU		1000 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	101/	10.15
				conjunction	-1832 Mar 07 j 14:09		-1°-15'-52
conjunction	-1838 Sep 21 j 04:22			minimum elong	-1832 Mar 07 j 14:09		1°15'53
minimum elong	-1838 Sep 21 j 04:23		1°15'46	max. Earth dist.	-1832 Mar 09 j 11:00		5.99784 AU
morning rise	-1838 Oct 03 j 18:05			morning rise	-1832 Mar 21 j 04:08	4°) 57′36	
	-1838 Dec 24 j 11:49	0。 ত		retrograde	-1832 Jul 30 j 16:50		
retrograde	-1837 Feb 02 j 03:46	2° ≏ 21'37		min. Earth dist.	-1832 Sep 27 j 00:20		4.03206 AU
	-1837 Mar 14 j 08:50			opposition	-1832 Sep 28 j 08:46		-1°-47'-47
opposition	-1837 Apr 04 j 01:48	-		direct	-1832 Nov 25 j 09:10		
min. Earth dist.	-1837 Apr 05 j 10:39		4.34868 AU		-1831 Mar 11 j 21:16	0° Υ	
direct	-1837 Jun 05 j 12:55	22° m 30'30		evening set	-1831 Mar 31 j 10:01	4° Ƴ 27'01	

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1831 in astronomical counting style is the year 1832 BCE in historical counting style. 7°**Υ**38'06 -1°-1'-38 -1831 Apr 14 j 03:05 max. Earth dist. -1826 Sep 23 j 10:25 16° Mp 13'52 6.37441 AU conjunction -1831 Apr 14 j 03:08 7°**Ƴ**38′08 minimum elong 1°01'37 -1831 Apr 16 j 05:02 8°**Υ**07'10 -1826 Sep 25 j 08:46 16° mp 39'35 1°14'30 max. Earth dist. 6.07947 AU conjunction -1826 Sep 25 j 08:48 16° **m** 39'36 -1831 Apr 27 j 21:48 10°**Y**49′50 minimum elong 1°14'31 morning rise -1831 Aug 22 j 18:23 -1826 Oct 07 j 22:19 0°X morning rise 19° m 26'35 -1831 Sep 03 j 14:21 0°**8**13'54 -1826 Nov 28 j 21:03 retrograde 0∘ଫ -1825 Feb 06 j 16:50 -1831 Sep 15 j 07:23 30°**₹**Υ retrograde 6°**£**46'21 25°**Υ**18'54 4.13816 AU 1°37'29 min. Earth dist. -1831 Oct 31 j 21:34 opposition -1825 Apr 08 j 14:04 1°**£**54'40 25°**Y**′09'30 opposition -1831 Nov 02 j 01:08 -1°-7'-28 min. Earth dist. -1825 Apr 09 j 23:32 1°**£**44'01 4.33149 AU 20°**Y**′09′17 direct -1831 Dec 30 j 23:14 -1825 Apr 24 j 00:07 30°R, Mp -1830 Mar 25 j 22:54 0°8 direct -1825 Jun 09 j 22:40 26° My 55'30-1825 Jul 26 j 04:43 evening set -1830 May 06 j 17:33 8°**8**56'06 0∘**⊽** -1825 Oct 13 j 18:05 evening set 14°**♀**59'42 conjunction -1830 May 20 j 12:08 12°**8**02'32 0°-25'-53 max. Earth dist. -1825 Oct 24 j 13:34 17°**£**26'37 6.27651 AU minimum elong -1830 May 20 j 12:10 12°**8**02'33 0°25'52 max. Earth dist. -1830 May 22 j 00:13 12°**8**22'54 6.20132 AU conjunction -1825 Oct 26 j 08:03 17° **£**50'47 0°53'31 -1830 Jun 02 j 15:07 15°**8** minimum elong -1825 Oct 26 j 08:06 17°**♀**50'48 0°53'30 morning rise -1830 Jun 03 j 06:20 15°**8**08'32 morning rise -1825 Nov 07 j 21:01 20°**♀**41'37 -1830 Aug 19 j 15:11 $0^{\circ}\Pi$ -1825 Dec 21 j 14:26 retrograde -1830 Oct 06 j 07:12 3°**Ⅱ**28'07 retrograde -1824 Mar 11 j 09:29 8°M48'41 -1830 Nov 23 j 03:26 30°R8 opposition -1824 May 11 j 09:55 3°M55'35 0°53'12 opposition -1830 Dec 04 i 20:55 28°\(\alpha 26'47 \) 0°-6'-45 min. Earth dist. -1824 May 12 j 12:53 3°M46'58 4.21551 AU min. Earth dist. -1830 Dec 04 i 05:04 28°\begin{align*} 28°\begin{align*} 232'07 \end{align*} 4.26315 AU -1824 Jun 16 i 02:02 30°R Ω asc. node -1829 Jan 16 j 07:01 23°**8**54'52 direct -1824 Jul 11 j 18:19 28° **2**59'16 direct -1829 Feb 03 j 00:48 23°**8**24'16 -1824 Aug 06 j 08:54 0°M -1829 Apr 13 j 03:11 0°**Ⅱ** -1824 Nov 02 j 22:19 15°M -1829 Jun 10 j 08:56 11°**II**40'32 -1824 Nov 13 j 19:48 17° M 30'00 evening set evening set max. Earth dist. -1824 Nov 25 j 07:32 20°M10'35 6.15283 AU -1829 Jun 23 j 23:07 14°**Д**40'07 0°16'56 conjunction -1824 Nov 26 j 11:47 20°M27'05 0°15'19 -1829 Jun 23 j 23:06 14°**II**40'06 0°16'58 minimum elong conjunction -1829 Jun 24 j 09:21 14°**耳**45'45 max. Earth dist. 6.32016 AU minimum elong -1824 Nov 26 j 11:48 20°M27'06 0°15'17 -1824 Nov 26 j 08:56 20°M25'26 -1829 Jul 07 j 11:12 17°**Ⅲ**38'27 behind sun begin morning rise -1829 Sep 08 j 12:17 behind sun end -1824 Nov 26 j 14:40 20°M28'45 0ംഇ -1829 Nov 06 j 13:06 -1824 Dec 09 j 04:45 23°M24'53 retrograde 5°905'07 morning rise -1828 Jan 05 j 08:11 -1823 Jan 07 j 11:11 0° ⊀ opposition 0°907'46 0°52'52 -1828 Jan 05 j 10:05 0°507'08 4.36638 AU -1823 Apr 11 j 06:18 12° ₹ 30'38 min. Earth dist. desc. node -1828 Jan 06 j 07:41 30°R II retrograde -1823 Apr 16 j 04:19 12°**х** 32'56 direct -1828 Mar 06 j 19:51 25°**耳**04'18 opposition -1823 Jun 16 j 00:54 7°**∡**36'50 0°-11'-11 -1828 May 05 j 14:50 0ಂತಾ min. Earth dist. -1823 Jun 16 j 11:42 7°**∡**33'20 4.09274 AU evening set -1828 Jul 12 j 06:36 12°558'01 direct -1823 Aug 15 j 00:42 2°**尽** 42'49 -1823 Dec 17 j 15:01 21° ₹ 43'41 evening set -1828 Jul 25 j 12:39 15°\$50'57 0°53'19 conjunction -1828 Jul 25 j 12:36 15°\$50'56 0°53'21 -1823 Dec 30 j 12:18 24° ₹ 47'47 0°-29'-35 minimum elong conjunction -1828 Jul 24 j 21:02 15°5542'27 -1823 Dec 30 j 12:16 24° ₹ 47'46 0°29'37 max. Earth dist. 6.39968 AU minimum elong -1828 Aug 07 j 15:33 18°542'18 -1823 Dec 30 j 11:16 24° ₹ 47'10 6.04251 AU morning rise max. Earth dist. -1828 Oct 04 i 02:20 $0^{\circ}\Omega$ morning rise -1822 Jan 12 j 11:46 27° ₹753'16 retrograde -1828 Dec 06 i 00:29 5°**Ω**39'45 -1822 Jan 21 i 11:06 0°**ਰ** opposition -1827 Feb 04 i 05:25 0°Ω45'47 1°35'37 retrograde -1822 May 23 j 14:01 17°る57'14 min. Earth dist. -1827 Feb 04 i 22:55 0°**Ω**40'06 4.41839 AU opposition -1822 Jul 22 j 23:59 12°₹57'17 -1°-14'-48 -1827 Feb 10 i 03:05 30°RS min. Earth dist. -1822 Jul 22 j 14:44 13°중00'20 4.00580 AU direct -1827 Apr 07 j 14:30 25°542'42 direct -1822 Sep 19 j 16:31 8°**⋜**04'06 -1827 Jun 02 j 13:23 -1821 Jan 22 j 08:50 27°る27'47 0 $^{\circ}\Omega$ evening set -1827 Aug 12 j 20:00 13°**Ω**26'30 -1821 Feb 01 j 22:41 evening set -1827 Aug 20 j 00:01 15°**Ω** max. Earth dist. -1827 Aug 24 j 06:18 15°**Q**55'52 6.41932 AU conjunction -1821 Feb 04 j 12:52 0°≈37'22 -1°-4'-52 minimum elong -1821 Feb 04 j 12:50 0°≈37'20 1°04'54 conjunction -1827 Aug 25 j 17:31 16°Ω15'06 1°14'09 max. Earth dist. -1821 Feb 05 j 15:37 0°**≈**53'26 5.98631 AU -1827 Aug 25 j 17:29 16°**Ω**15'05 1°14'10 -1821 Feb 17 j 20:20 minimum elong morning rise 3°≈48'44 -1827 Sep 07 j 11:54 19° Ω 02'15 -1821 Apr 09 j 02:52 morning rise 15°≈ -1827 Nov 01 j 19:45 -1821 Jun 30 j 04:46 0° M retrograde 24°≈18'18 retrograde -1826 Jan 05 j 19:00 5° m 57'37 min. Earth dist. -1821 Aug 28 j 02:05 19°≈23'42 3.98817 AU -1826 Mar 07 j 09:13 1° Mp 05'41 1°51'59 opposition -1821 Aug 29 j 04:48 19°**≈**14'41 -1°-51'-6 opposition min. Earth dist. -1826 Mar 08 j 14:55 0° Mp 56'11 4.40583 AU -1821 Oct 06 j 12:02 15°R≈ -1826 Mar 16 j 00:16 30°R**Ω** direct -1821 Oct 26 j 03:23 14°≈20'07 direct -1826 May 09 j 02:36 26°**Ω**04'10 -1821 Nov 14 j 20:47 15°≈

-1820 Feb 12 j 03:23

-1820 Feb 28 j 10:25

evening set

0°)

3°**)**(48'09

-1826 Jul 01 j 09:29

evening set

-1826 Sep 12 j 17:10 13° m 51'41

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1820 in astronomical counting style is the year 1821 BCE in historical counting style. -1820 Mar 12 j 22:14 7°**)** € 00'08 -1°-15'-32 conjunction -1815 Aug 30 j 00:01 $20^{\circ}\Omega$ 34'34 $1^{\circ}15'28$ conjunction -1820 Mar 12 j 22:15 7°**₩**00'08 1°15'35 minimum elong -1815 Aug 30 j 00:00 $20^{\circ}\Omega$ 34'33 $1^{\circ}15'29$ minimum elong -1815 Sep 11 j 17:35 23°**Ω**21'31 -1820 Mar 14 j 21:59 7°**₩**28'29 6.00768 AU max. Earth dist. morning rise -1815 Oct 13 j 09:35 -1820 Mar 26 j 12:55 10°**)** 13'31 morning rise 0° m -1820 Jul 20 j 12:37 0° -1814 Jan 10 j 03:38 retrograde 10° Mp 19'14 0°Y22'58 -1814 Mar 11 j 19:04 1°51'50 retrograde -1820 Aug 04 j 18:39 opposition 5° m 27'25 -1820 Aug 19 j 21:03 30°**₹** min. Earth dist. -1814 Mar 13 j 01:31 5° m 17'41 4.39730 AU -1820 Oct 02 j 01:17 min. Earth dist. 25°**∺**28'30 4.04685 AU direct -1814 May 13 j 11:24 0° m 26'09 25°**¥**17'41 -1°-44'-7 opposition -1820 Oct 03 j 08:58 evening set -1814 Sep 17 j 00:33 18° **m**) 15'54 direct -1820 Nov 30 j 12:49 20°**)**€20'09 max. Earth dist. -1814 Sep 27 j 18:21 20° m 38'49 6.36183 AU $0^{\circ}\Upsilon$ -1819 Feb 21 j 01:59 9°Υ31'11 -1814 Sep 29 j 15:48 21° m 04'07 evening set -1819 Apr 05 j 14:23 conjunction 1°12'48 -1814 Sep 29 j 15:50 21° m 04'08 minimum elong 1°12'47 -1814 Oct 12 j 04:54 23° m 51'28 conjunction -1819 Apr 19 j 07:57 12°**Y**41'40 0°-57'-35 morning rise minimum elong -1819 Apr 19 j 08:00 12°**Υ**41'42 0°57'35 -1814 Nov 09 j 20:09 0∘<u>ଫ</u> -1819 Apr 21 j 09:28 13°**Υ**10'19 max. Earth dist. 6.09774 AU retrograde -1813 Feb 11 j 07:20 11°**≏**17'08 morning rise -1819 May 03 j 02:57 15°**Υ**52'40 opposition -1813 Apr 13 j 05:08 6°**£**25'25 1°32'56 -1819 Jul 11 j 14:37 0°8 min. Earth dist. -1813 Apr 14 j 14:32 6°₽14'48 4.31564 AU retrograde -1819 Sep 08 j 06:06 5°806'44 direct -1813 Jun 14 j 11:15 1°**≏**26'43 0°**8**02'39 opposition -1819 Nov 06 j 17:54 0°-59'-38 evening set -1813 Oct 18 j 04:26 19°**2**34'44 0°**8**11'52 4.15798 AU min. Earth dist. -1819 Nov 05 j 14:51 max. Earth dist. -1813 Oct 29 j 00:09 22° **2**02'27 6.25884 AU -1819 Nov 07 i 01:41 30°RY direct $-1818 \text{ Jan } 04 \text{ j } 18:58 \quad 25^{\circ} \Upsilon 02'03$ conjunction -1813 Oct 30 i 18:22 22°**Ω**26'33 0°49'00 -1818 Mar 03 i 16:55 0°8 minimum elong -1813 Oct 30 j 18:24 22° \(\Omega\) 26'34 0°49'00 evening set -1818 May 11 j 16:01 13°**8**43'29 morning rise -1813 Nov 12 j 07:51 25° **△**18'19 -1818 May 17 j 08:34 15°**8** -1813 Dec 03 j 10:16 o∘m. -1812 Mar 16 j 07:22 13° M 33'46 retrograde -1818 May 25 j 10:11 16°848'54 0°-19'-59 -1812 May 16 j 07:37 conjunction opposition 8°M,40'20 0°44'59 -1818 May 25 j 10:13 16°848'55 0°19'58 -1812 May 17 j 08:20 8°M32'26 4.19728 AU min. Earth dist. minimum elong -1818 May 26 j 17:55 17°**8**06'45 6.22114 AU direct -1812 Jul 16 j 11:46 3°M44'26 max. Earth dist. -1812 Oct 16 j 15:41 15°M -1818 Jun 08 j 03:52 19°**8**53'48 morning rise -1818 Jul 26 j 15:19 0°**Ⅱ** evening set -1812 Nov 18 j 11:10 22°M 19'31 -1812 Nov 30 j 04:33 25°ML03'55 -1818 Oct 10 j 17:57 8°**Ⅱ**04'20 max. Earth dist. 6.13602 AU retrograde -1818 Nov 26 j 10:11 4°**Ⅱ**45'18 asc. node -1818 Dec 09 j 07:44 3°**I**103'31 0°02'03 -1812 Dec 01 j 03:53 25°ML17'36 0°09'06 opposition conjunction -1818 Dec 08 j 19:12 3°**Д**07'44 4.28120 AU -1812 Dec 01 j 03:53 25°M 17'36 min. Earth dist. minimum elong 0°09'03 -1817 Jan 02 j 22:05 30°R₩ -1812 Nov 30 j 21:02 25° 11.13'36 behind sun begin direct -1817 Feb 07 j 17:12 28°**8**00'47 behind sun end -1812 Dec 01 j 10:45 25°M21'36 -1817 Mar 15 j 23:02 $\Pi^{\circ}0$ morning rise -1812 Dec 13 j 21:29 28°M16'26 evening set -1817 Jun 15 j 00:50 16°**II**12'44 -1812 Dec 21 j 08:17 0°**尽** desc. node -1811 Feb 19 j 01:15 12° ₹ 08'51 -1817 Jun 28 j 14:09 19°**Ⅱ**11'18 0°22'38 retrograde -1811 Apr 21 j 09:12 17° ₹32'52 conjunction -1817 Jun 28 j 14:07 19°**Ⅱ**11'17 0°22'40 -1811 Jun 21 j 04:11 12° ₹ 36'19 0°-20'-45 minimum elong opposition -1817 Jun 28 j 21:17 19°**Ⅲ**15'13 6.33513 AU min. Earth dist. -1811 Jun 21 j 12:20 12° ₹33'40 4.07894 AU max. Earth dist. -1817 Jul 12 j 00:58 22°**Ⅱ**08'31 -1811 Aug 19 j 23:34 7°**∡**¹42'37 morning rise direct -1817 Aug 18 j 18:00 evening set -1811 Dec 22 i 12:49 26° ₹ 46'42 retrograde -1817 Nov 10 j 17:57 9°9529'21 opposition -1816 Jan 09 i 15:18 4°532'30 1°00'05 conjunction -1810 Jan 04 i 10:44 29° ₹ 51'32 0°-35'-29 min. Earth dist. -1816 Jan 09 i 18:52 4°531'19 4.37750 AU minimum elong -1810 Jan 04 i 10:42 29° ₹ 51'31 0°35'32 -1816 Feb 21 j 23:46 30°R **I**I max. Earth dist. -1810 Jan 04 i 12:50 29° ₹ 52'47 6.03290 AU direct -1816 Mar 11 j 05:42 29°**Ⅲ**29'01 -1810 Jan 05 j 00:54 0°궁 -1816 Mar 29 j 17:47 morning rise -1810 Jan 17 j 11:21 2°る57'54 0ಂತಾ -1816 Jul 16 j 17:20 17°520'31 -1810 May 28 j 18:59 23°**⋜**06'42 evening set retrograde -1810 Jul 28 j 04:51 18°중06'10 -1°-21'-59 opposition conjunction -1816 Jul 29 j 22:04 20°\$12'40 0°57'17 min. Earth dist. -1810 Jul 27 j 15:50 18°정10'29 4.00161 AU -1810 Sep 24 j 17:24 13°쥥12'55 minimum elong -1816 Jul 29 j 22:02 20°5 12'39 0°57'18 direct max. Earth dist. -1816 Jul 29 j 02:34 20°502'03 6.40609 AU -1809 Jan 16 j 09:18 0°≈ -1816 Aug 11 j 23:45 23°503'16 -1809 Jan 27 j 11:13 morning rise evening set 2°**≈**37'20 -1816 Sep 14 j 08:52 $0^{\circ}\Omega$ -1816 Dec 10 j 07:05 -1809 Feb 09 j 16:22 retrograde 9°**£**58'55 conjunction 5°≈47'18 -1°-8'-1 -1809 Feb 09 j 16:19 opposition -1815 Feb 08 j 12:30 5°**Ω**05'21 1°39'37 minimum elong 5°**≈**47'16 1°08'03 min. Earth dist. -1815 Feb 09 j 08:55 4°**Ω**58'45 4.41988 AU max. Earth dist. -1809 Feb 10 j 23:53 6°**≈**06'13 5.98778 AU direct -1815 Apr 12 j 00:21 0°**Ω**02'26 morning rise -1809 Feb 23 j 00:39 8°**≈**58'58 -1815 Aug 04 j 05:32 15°**Ω** -1809 Mar 20 j 23:03 15°**≈** evening set -1815 Aug 17 j 03:29 17°**Ω**46'13 retrograde -1809 Jul 05 j 08:50 29°≈27'08 max. Earth dist. -1815 Aug 28 j 09:48 20° **Ω**13'39 6.41557 AU -1809 Sep 02 j 03:39 24°≈32'22 3.99521 AU min. Earth dist. -1809 Sep 03 j 06:52 24°≈23'10 -1°-52'-42 opposition

•	nical year style is used: The		_	` //			
direct	-1809 Oct 31 j 06:13	-		max. Earth dist.	-1803 Sep 01 j 15:32		
	-1808 Jan 25 j 01:13	0°)					
evening set	-1808 Mar 04 j 13:41	8° 升 53'52		conjunction	-1803 Sep 03 j 07:00	24° Ω 56′09	1°16'20
				minimum elong	-1803 Sep 03 j 06:59	24° Ω 56′09	1°16'22
conjunction	-1808 Mar 18 j 02:22	12°) €05'43	-1°-14'-39	morning rise	-1803 Sep 15 j 23:44	27° Ω 43′00	
minimum elong	-1808 Mar 18 j 02:23	12°) €05'44	1°14'40		-1803 Sep 26 j 13:08	0° m/	
max. Earth dist.	-1808 Mar 20 j 03:23		6.01934 AU	retrograde	-1802 Jan 14 j 14:04		
morning rise	-1808 Mar 31 j 17:54			opposition	-1802 Mar 16 j 05:53		1°51'01
	-1808 Jun 10 j 11:39	0° Υ		min. Earth dist.	-1802 Mar 17 j 13:46	9° m 41'41	4.38814 AU
retrograde	-1808 Aug 09 j 14:40	5° Υ 21'18		direct	-1802 May 17 j 22:55	4° m 50'55	
min. Earth dist.	-1808 Oct 06 j 20:32	0° Υ 27'03	4.06191 AU	evening set	-1802 Sep 21 j 08:30	•	
opposition	-1808 Oct 08 j 04:42	0°Υ16'05	-1°-39'-47	max. Earth dist.	-1802 Oct 02 j 01:09	25° Mp 05'28	6.34977 AU
t' .	-1808 Oct 10 j 03:51	30° ₹		. ,.	1002 0 4 02 : 22 10	0.50 m- 2.111.2	1010120
direct	-1808 Dec 05 j 09:48 -1807 Jan 29 j 14:18	25° 升 18′08 0° Ƴ		conjunction minimum elong	-1802 Oct 03 j 23:19		1°10'38
avaning sat	-1807 Apr 10 j 14:40			morning rise	-1802 Oct 03 j 23:20 -1802 Oct 16 j 12:17		1 1038
evening set	-1607 Apr 10 J 14.40	14 243/		morning rise	-1802 Oct 10 j 12.17 -1802 Oct 24 j 03:13	0° ⊡	
conjunction	-1807 Apr 24 j 08:31	17° ℃ 34'50	0°-53'-16	retrograde	-1801 Feb 15 j 21:39		
minimum elong	-1807 Apr 24 j 08:35	17° Υ 34'52	0°53'16	opposition	-1801 Apr 17 j 21:01		1°27'46
max. Earth dist.		18° Υ 01'30	6.11480 AU	min. Earth dist.	-1801 Apr 19 j 04:57		4.30140 AU
morning rise	-1807 May 08 j 03:43		0.11.00110	direct	-1801 Jun 19 j 00:00	5° £ 59'58	501.0110
	-1807 Jun 19 j 20:53	0°8		evening set	-1801 Oct 22 j 14:37		
retrograde	-1807 Sep 12 j 19:16	9° 8 50'18		max. Earth dist.	-1801 Nov 02 j 13:57		6.24362 AU
min. Earth dist.	-1807 Nov 10 j 06:31	4° 8 54'54	4.17515 AU		J		
opposition	-1807 Nov 11 j 07:00	4° 8 46'35	0°-51'-42	conjunction	-1801 Nov 04 j 04:48	27° ₽ 03'23	0°44'10
	-1807 Dec 28 j 13:12	30° ₹ Υ		minimum elong	-1801 Nov 04 j 04:50	27° ≏ 03'24	0°44'09
direct	-1806 Jan 09 j 12:52	29° Ƴ 45'37		morning rise	-1801 Nov 16 j 18:28	29° £ 55'55	
	-1806 Jan 21 j 14:02	9° 8			-1801 Nov 17 j 01:39	0° M.	
	-1806 May 01 j 02:25	15° 8			-1800 Feb 02 j 19:51	15° ™	
evening set	-1806 May 16 j 11:06	18° 8 22'59		retrograde	-1800 Mar 21 j 05:06	18°M18'43	
					-1800 May 08 j 14:06		
conjunction	-1806 May 30 j 05:05		0°-14'-8	opposition	-1800 May 21 j 05:00		
minimum elong	-1806 May 30 j 05:06		0°14'07	min. Earth dist.	-1800 May 22 j 04:26		4.18190 AU
behind sun begin	-1806 May 30 j 01:18			direct	-1800 Jul 21 j 05:59	8°M29'21	
behind sun end	-1806 May 30 j 08:54		(22720 AII		-1800 Sep 26 j 16:29		
max. Earth dist.	-1806 May 31 j 10:28		6.23728 AU	evening set	-1800 Nov 23 j 02:05	2/*1160/41	
morning rise	-1806 Jun 12 j 21:59 -1806 Jul 08 j 04:07			conjunction	1900 Dec 05 : 10:11	0° ∡ 106'35	0002150
asc. node	-1806 Oct 07 j 15:02	0° Ⅱ 12° Ⅱ 29'11		minimum elong	-1800 Dec 05 j 19:11 -1800 Dec 05 j 19:12		0°02'30 0°02'49
retrograde	-1806 Oct 15 j 00:58	12° I I34'37		behind sun begin	-1800 Dec 05 j 11:12	0° ₹ 00′ 50′ 00′ 55′ 00′ 50′ 5	0 0249
opposition	-1806 Dec 13 j 15:54	7° I I34'24	0°10'36	behind sun end	-1800 Dec 06 j 03:13	0°×111'17	
min. Earth dist.	-1806 Dec 13 j 05:00	7° I I38'03	4.29505 AU	max. Earth dist.	-1800 Dec 04 j 21:41	29°M53'57	6.12167 AU
direct	-1805 Feb 12 j 04:22	2° I I31'33	2,000 110	man. Barar alot.	-1800 Dec 05 j 07:59	0° ⊼ ¹	0.12107110
evening set	-1805 Jun 19 j 14:48			morning rise	-1800 Dec 18 j 13:45	3° ∡ 06'25	
Č	,			desc. node	-1800 Dec 30 j 05:50	5° ∡¹ 48'33	
conjunction	-1805 Jul 03 j 02:59	23° Ⅲ 38'32	0°28'04	retrograde	-1799 Apr 26 j 10:37	22° ∡ ³30′11	
minimum elong	-1805 Jul 03 j 02:57	23° Ⅲ 38'31	0°28'07	opposition	-1799 Jun 26 j 05:39	17° ∡ ³33′02	0°-30'-7
max. Earth dist.	-1805 Jul 03 j 04:42		6.34566 AU	min. Earth dist.	-1799 Jun 26 j 10:18	17° ∡ ³31'32	4.06684 AU
morning rise	-1805 Jul 16 j 12:48	26° ∏ 34'53		direct	-1799 Aug 24 j 20:02	12° ∡ ³39′27	
	-1805 Aug 01 j 10:10	0ං ව			-1799 Dec 19 j 21:09	0° ප	
retrograde	-1805 Nov 15 j 00:28	13° 9 51'40		evening set	-1799 Dec 27 j 09:18	1° る 46'26	
opposition	-1804 Jan 13 j 21:51	8° © 55'21	1°06'51			_	
min. Earth dist.	-1804 Jan 14 j 04:46	8°953'04	4.38424 AU	conjunction	-1798 Jan 09 j 08:12	4°る52'03	0°-41'-4
direct	-1804 Mar 15 j 16:32	3°951'52		minimum elong	-1798 Jan 09 j 08:10	4°る52'01	0°41'08
evening set	-1804 Jul 21 j 03:08	21°542'29	C 400 47 A X X	max. Earth dist.	-1798 Jan 09 j 15:18	4°る56'18	6.02410 AU
max. Earth dist.	-1804 Aug 02 j 09:07	24°922'15	6.40847 AU	morning rise	-1798 Jan 22 j 09:40	7°る59'12	
agniumation	1904 Ana 02 : 06:51	2400524107	1900/52	retrograde	-1798 Jun 03 j 00:25	28°る12'30	10 201 21
conjunction minimum elong	-1804 Aug 03 j 06:51 -1804 Aug 03 j 06:48	24°534'06 24°534'04	1°00'52 1°00'54	opposition min. Earth dist.	-1798 Aug 02 j 08:00 -1798 Aug 01 j 17:41		-1°-28'-31 3.99713 AU
morning rise	-1804 Aug 16 j 07:13		1 00 34	direct	-1798 Aug 01 j 17:41 -1798 Sep 29 j 18:46	18° る 18'01	3.77/13 AU
morning 1180	-1804 Aug 16 j 07:13 -1804 Aug 28 j 09:59	2/° 9 24 06		uncet	-1798 Sep 29 j 18:46 -1798 Dec 29 j 21:56	0°≈	
retrograde	-1804 Aug 28 j 09:39 -1804 Dec 14 j 12:10			evening set	-1797 Feb 01 j 12:29	0 ≈ 7° ≈ 43'30	
opposition	-1803 Feb 12 j 19:50	9° Ω 26'05	1°43'01		1 00 01 j 12.27	. 1550	
min. Earth dist.	-1803 Feb 13 j 17:03	9° Ω 19'14	4.41820 AU	conjunction	-1797 Feb 14 j 18:36	10° ≈ 53'54	-1°-10'-39
direct	-1803 Apr 16 j 08:00	4° £ 23′22	-	minimum elong	-1797 Feb 14 j 18:34		1°10'41
	-1803 Jul 18 j 05:28			max. Earth dist.	-1797 Feb 16 j 04:48		5.98779 AU
evening set	-1803 Aug 21 j 11:27			morning rise	-1797 Feb 28 j 04:03	14° ≈ 06′01	

,	iical year style is used: Tl		•	//		, 1	ige 10
Attention, astronom		-	in astronomicai cot	min. Earth dist.	-1791 Feb 18 j 04:31		
	-1797 Mar 03 j 23:04 -1797 May 16 j 06:28	13 ≈ 0°) €		direct	-1791 Feb 18 j 04.31 -1791 Apr 20 j 20:18	8° Ω 47'23	4.41900 AU
retrograde	-1797 May 10 j 00.28 -1797 Jul 10 j 10:32	0 X 4° ¥ 33'12		direct	-1791 Apr 20 j 20:18 -1791 Jun 28 j 07:20		
retrograde	-1797 Sep 04 j 11:32			evening set	-1791 Juli 28 j 07.20 -1791 Aug 25 j 19:44		
min. Earth dist.	-1797 Sep 04 j 11:32 -1797 Sep 07 j 02:28	29°≈38'44	4.00000 AU	max. Earth dist.	-1791 Aug 25 j 19:44 -1791 Sep 05 j 22:44		6.40826 AU
opposition	-1797 Sep 07 j 02.28 -1797 Sep 08 j 07:29	29 ≈38 44 29°≈28'54	-1°-53'-31	max. Earth dist.	-1/91 Sep 03 J 22.44	20 063/29	0.40620 AU
direct	-1797 Sep 08 j 07.29	24°≈33'37	-1 -33-31	conjunction	-1791 Sep 07 j 14:29	20°Ω10'18	1°16'50
direct	-1796 Jan 03 j 08:33	0°) €		minimum elong	-1791 Sep 07 j 14:29		1°16'50
evening set	-1796 Mar 09 j 16:47	13° ¥ 57'56		minimum clong	-1791 Sep 07 j 14:28	0° m	1 10 30
evening set	1790 With 09 j 10.47	13 7(3730		morning rise	-1791 Sep 20 j 06:18	2° m 05'53	
conjunction	-1796 Mar 23 j 06:20	17° ₩ 09'47	-1°-13'-12	retrograde	-1790 Jan 18 j 22:23	19° m 08'05	
minimum elong	-1796 Mar 23 j 06:21	17°) (09'48	1°13'13	opposition	-1790 Mar 20 j 17:16	14° Mp 16'27	1°49'34
max. Earth dist.	-1796 Mar 25 j 06:52	17°) €38'25	6.02827 AU	min. Earth dist.	-1790 Mar 22 j 00:21	14° Mp 06'33	4.38363 AU
morning rise	-1796 Apr 05 j 22:40	20°\ 22'52	0.02027110	direct	-1790 May 22 j 08:54	9° m) 15'54	
morning rise	-1796 May 19 j 08:50	0°Υ		evening set	-1790 Sep 25 j 15:42		
retrograde	-1796 Aug 14 j 10:47	10° Υ 19'17		max. Earth dist.	-1790 Oct 06 j 08:57	-	6.34281 AU
min. Earth dist.	-1796 Oct 11 j 17:11	5° Υ 24'41	4.07378 AU	max. Earth dist.	1750 000 00 00.57	27 117 31 23	0.5 1201 110
opposition	-1796 Oct 13 j 00:14	5° Υ 14'04	-1°-34'-48	conjunction	-1790 Oct 08 j 06:02	29°m 56'37	1°08'07
direct	-1796 Dec 10 j 08:21	0° Υ 15'38	-1 -54 -40	minimum elong	-1790 Oct 08 j 06:04		1°08'06
evening set	-1795 Apr 15 j 15:38	19° Υ 19'29		minimum ciong	-1790 Oct 08 j 12:06	0° ರ	1 00 00
evening set	-1793 Apr 13 j 13.36	19 1 1929		morning rise	-1790 Oct 08 j 12:00 -1790 Oct 20 j 18:43	0 == 2° £ 44'34	
conjunction	-1795 Apr 29 j 10:04	220W20150	0°-48'-33	retrograde	-1789 Feb 20 j 11:55		
minimum elong	-1795 Apr 29 j 10:07		0°48'33	opposition	-1789 Feb 20 j 11:33 -1789 Apr 22 j 11:48		1°22'07
max. Earth dist.		22° Y 55'17	6.12879 AU	min. Earth dist.	-1789 Apr 22 j 11.48 -1789 Apr 23 j 19:54		4.29212 AU
	-1795 May 01 j 07:53	25° Y 38'39	0.12879 AU	direct			4.29212 AU
morning rise	-1795 May 13 j 05:14	0° 8			-1789 Jun 23 j 13:51		
	-1795 Jun 01 j 16:32	_		evening set	-1789 Oct 26 j 22:57	0°M	
retrograde	-1795 Sep 17 j 09:46	_	0°-43'-21	Double died	-1789 Nov 01 j 15:15		6.23284 AU
opposition	-1795 Nov 15 j 21:12	9° 8 32'35 9° 8 40'27		max. Earth dist.	-1789 Nov 06 j 22:50	1°M13'10	0.23284 AU
min. Earth dist.	-1795 Nov 14 j 22:01		4.18971 AU		1700 N 00 : 12 12	10 M 25110	0020111
direct	-1794 Jan 14 j 05:58	4° 8 31'20		conjunction	-1789 Nov 08 j 13:12	1°M35'10	0°39'11
. ,	-1794 Apr 13 j 07:22			minimum elong	-1789 Nov 08 j 13:14	1°M35'12	0°39'09
evening set	-1794 May 21 j 07:47	23.003.73		morning rise	-1789 Nov 21 j 03:19	4°M28'20	
	1704 I 04:01.10	20000115	00 01 7		-1788 Jan 09 j 18:34		
conjunction	-1794 Jun 04 j 01:10		0°-8'-7	retrograde	-1788 Mar 25 j 22:36		002715.4
minimum elong	-1794 Jun 04 j 01:10		0°08'06	opposition	-1788 May 25 j 23:34		0°27'54
behind sun begin	-1794 Jun 03 j 17:48			min. Earth dist.	-1788 May 26 j 20:18		4.17020 AU
behind sun end	-1794 Jun 04 j 08:32		6 05107 ATT	11.	-1788 Jun 20 j 16:11	•	
max. Earth dist.	-1794 Jun 05 j 01:46		6.23127 AU	direct	-1788 Jul 25 j 19:47		
morning rise	-1794 Jun 17 j 17:34						
1	-1794 Jun 21 j 07:49	0°II		desc. node	-1788 Nov 11 j 02:24	28°M00'53	
asc. node	-1794 Aug 17 j 13:07	11° II 23'46			-1788 Nov 19 j 19:05	0° ∡ 7	
retrograde	-1794 Oct 19 j 10:55	17° Ⅱ 08'47	0010115	evening set	-1788 Nov 27 j 13:53	1° ∡ 748′28	
opposition	-1794 Dec 18 j 02:20	12° Ⅱ 09'07	0°19'15		1500 D 10:05.20	40 7 40107	00 21 22
min. Earth dist.	-1794 Dec 17 j 18:08	12° I I11'52	4.30740 AU	conjunction	-1788 Dec 10 j 07:39	4° ₹ 48'07	0°-3'-22
direct	-1793 Feb 16 j 19:40	7° I 106'06		minimum elong	-1788 Dec 10 j 07:39	4° ₹ 48'06	0°03'25
evening set	-1793 Jun 24 j 06:31	25° Ⅱ 13'00		behind sun begin	-1788 Dec 09 j 23:40	4° ₹ 43'26	
aaminus -ti	1702 1-1 07:17.40	200TA0154	0022120	behind sun end	-1788 Dec 10 j 15:37	4° 🖈 52'47	6 11017 ATT
conjunction	-1793 Jul 07 j 17:48	28° Ⅱ 09'54	0°33'28	max. Earth dist.	-1788 Dec 09 j 13:47	4° 🖈 37'36	6.11017 AU
minimum elong	-1793 Jul 07 j 17:46	28° I 109'53	0°33'31	morning rise	-1788 Dec 23 j 02:49	7°× 7 48'45	
max. Earth dist.	-1793 Jul 07 j 17:46		6.35569 AU	retrograde	-1787 May 01 j 10:48		00 201 50
	-1793 Jul 16 j 02:35	0°9		opposition	-1787 Jul 01 j 03:45		0°-38'-59
morning rise	-1793 Jul 21 j 02:14	1°505'19		min. Earth dist.	-1787 Jul 01 j 07:19	22° 🗷 20'24	4.05639 AU
retrograde	-1793 Nov 19 j 07:11	18°518'07	1010104	direct	-1787 Aug 29 j 14:50	17° ∡ 28′07	
opposition	-1792 Jan 18 j 06:26	13°522'22	1°13'24		-1787 Dec 03 j 08:58	0°る	
min. Earth dist.	-1792 Jan 18 j 14:28	13°5519'44	4.39165 AU	evening set	-1786 Jan 01 j 02:34	6° る 37'50	
direct	-1792 Mar 20 j 03:26	8°519'02			1706 1 14:00 16	00744111	00 461 12
evening set	-1792 Jul 25 j 14:46	26°908'18		conjunction	-1786 Jan 14 j 02:16	9°₹44'11	0°-46'-12
	1700 . 07:17:5	200	100.4112	minimum elong	-1786 Jan 14 j 02:14	9°る44'09	0°46'15
conjunction	-1792 Aug 07 j 17:05	28°959'12		max. Earth dist.	-1786 Jan 14 j 11:33	9° る 49'44	6.01560 AU
minimum elong	-1792 Aug 07 j 17:03	28°959'11	1°04'15	morning rise	-1786 Jan 27 j 04:51	12° る 52'10	
max. Earth dist.	-1792 Aug 06 j 16:01	28°545'32	6.41284 AU		-1786 Apr 23 j 08:17	0° ≈	
	-1792 Aug 12 j 08:36	0°N		retrograde	-1786 Jun 08 j 00:30	3°≈09'56	
morning rise	-1792 Aug 20 j 16:23	1° Ω 48'34		*.*	-1786 Jul 24 j 00:10		10.24.15
	-1792 Oct 29 j 17:52	15° Ω		opposition	-1786 Aug 07 j 07:04	28°る08'26	-1°-34'-12
retrograde	-1792 Dec 18 j 20:59	18° Ω 42'44		min. Earth dist.	-1786 Aug 06 j 14:16		3.99181 AU
	-1791 Feb 08 j 00:59	15°R Ω	104515	direct	-1786 Oct 04 j 14:07		
opposition	-1791 Feb 17 j 05:11	13° Ω 49'51	1°45'56		-1786 Dec 10 j 02:37	0° ≈	

2	ical year style is used: The		· ·	. //		, 1	
evening set	-1785 Feb 06 j 11:01	-		conjunction	-1780 Aug 12 j 01:51	3° Ω 21′25	
•	-1785 Feb 16 j 01:14			minimum elong	-1780 Aug 12 j 01:48	3° Ω 21′24	1°07'13
	-			morning rise	-1780 Aug 24 j 23:45	6° Ω 10′04	
conjunction	-1785 Feb 19 j 18:10	15° ≈ 53'19	-1°-12'-41		-1780 Oct 07 j 07:14	15° Ω	
minimum elong	-1785 Feb 19 j 18:09	15° ≈ 53'18	1°12'43	retrograde	-1780 Dec 23 j 02:19	23° Ω 03′13	
max. Earth dist.	-1785 Feb 21 j 05:54	16° ≈ 14'43	5.98602 AU	opposition	-1779 Feb 21 j 13:16		1°48'15
morning rise	-1785 Mar 05 j 04:41	19° ≈ 05'59		min. Earth dist.	-1779 Feb 22 j 13:22		4.41982 AU
	-1785 Apr 23 j 04:01	0° ∀			-1779 Mar 20 j 08:46		
retrograde	-1785 Jul 15 j 10:03	9°) 33′06		direct	-1779 Apr 25 j 05:04	13° Ω 08′15	
min. Earth dist.	-1785 Sep 11 j 23:48	4° ∺ 38′29	4.00205 AU		-1779 May 31 j 05:51	15° Ω	
opposition	-1785 Sep 13 j 05:03	4°) €28'32	-1°-53'-29	_	-1779 Aug 26 j 03:07	0° m	
t'	-1785 Oct 24 j 23:15			evening set	-1779 Aug 30 j 02:55	0° m 52'03	C 40404 ATT
direct	-1785 Nov 10 j 03:28			max. Earth dist.	-1779 Sep 10 j 02:29	3° Mp 16'30	6.40404 AU
	-1785 Nov 26 j 08:05	0° \ 100 \ 57!14		· · · · · · · · · ·	1770 0 11 : 20.20	20 m, 20141	101754
evening set	-1784 Mar 14 j 17:43	18°π5/14		conjunction	-1779 Sep 11 j 20:39	3° Mp 39'41 3° Mp 39'41	1°16'54 1°16'54
conjunction	-1784 Mar 28 j 08:24	22°¥00'18	-1°-11'-15	minimum elong morning rise	-1779 Sep 11 j 20:39 -1779 Sep 24 j 11:52	5 11\(\pi 3941\) 6° 11\(\pi 26'09\)	1 10 34
minimum elong	-1784 Mar 28 j 08:27		1°11'17	retrograde	-1778 Jan 23 j 09:16	23° m 30'57	
max. Earth dist.	-1784 Mar 30 j 10:50		6.03414 AU	opposition	-1778 Mar 25 j 04:14	18° m 39'20	1°47'34
morning rise	-1784 Apr 11 j 01:26		0.05414 AC	min. Earth dist.	-1778 Mar 26 j 13:00	18° m) 28'54	4.37505 AU
morning 1130	-1784 May 01 j 05:55	0° Υ		direct	-1778 May 26 j 20:10	13° m/39'02	4.57505710
retrograde	-1784 Aug 19 j 06:23	15° Υ 14'02		direct	-1778 Sep 22 j 22:40	0∘ ರ	
min. Earth dist.	-1784 Oct 16 j 11:33	10° Υ 19'25	4.08284 AU	evening set	-1778 Sep 29 j 22:37	° - 1° - 32'52	
opposition		10° Υ 08'58	-1°-29'-15	max. Earth dist.	-1778 Oct 10 j 15:41	3° Ω 56'34	6.33044 AU
direct	-1784 Dec 15 j 03:45	5° Y 10′09					
evening set	-1783 Apr 20 j 15:40	24° Υ 12'04		conjunction	-1778 Oct 12 j 12:48	4° Ω 21'52	1°05'12
C	1 ,			minimum elong	-1778 Oct 12 j 12:51	4° Ω 21'54	1°05'12
conjunction	-1783 May 04 j 10:15	27° Y 21′10	0°-43'-33	morning rise	-1778 Oct 25 j 01:23	7° ≙ 10'19	
minimum elong	-1783 May 04 j 10:18	27° Y 21′12	0°43'32	retrograde	-1777 Feb 25 j 02:15	24° ≏ 51'47	
max. Earth dist.	-1783 May 06 j 05:13	27° Y 45'46	6.14031 AU	opposition	-1777 Apr 27 j 03:38	19° ≏ 59'30	1°15'59
	-1783 May 16 j 00:12	9° 8		min. Earth dist.	-1777 Apr 28 j 10:06	19° ≏ 49'48	4.27665 AU
morning rise	-1783 May 18 j 05:40	0° 8 30'24		direct	-1777 Jun 28 j 01:09	15° ≏ 01'53	
	-1783 Jul 30 j 06:44	15° 8			-1777 Oct 16 j 18:10	0° M	
retrograde	-1783 Sep 21 j 22:39			evening set	-1777 Oct 31 j 09:01	3°M17'39	
	-1783 Nov 15 j 05:16			max. Earth dist.	-1777 Nov 11 j 11:29	5° ™ 50'42	6.21560 AU
opposition	-1783 Nov 20 j 10:38						
min. Earth dist.	-1783 Nov 19 j 12:43		4.20253 AU	conjunction	-1777 Nov 12 j 23:32	6° ™ 11'29	0°33'51
direct	-1782 Jan 18 j 23:39	9° 8 15'58		minimum elong	-1777 Nov 12 j 23:34	6°M11'30	0°33'50
. ,	-1782 Mar 23 j 04:59	15° 8		morning rise	-1777 Nov 25 j 14:08	9°M05'35	
evening set	-1782 May 26 j 03:50				-1777 Dec 22 j 02:03	15°M	
	-1782 Jun 05 j 02:43	$\Pi^{\circ}0$		retrograde	-1776 Mar 30 j 22:37	27°M43'03 22°M48'28	0°18'54
aaniumatian	1702 Jun 00: 20:40	0° Ⅱ 50'14	00 21 4	opposition min. Earth dist.	-1776 May 30 j 21:34	22°M42'06	4.15221 AU
conjunction minimum elong	-1782 Jun 08 j 20:48 -1782 Jun 08 j 20:49	0° П 50'15	0°02'03	direct	-1776 May 31 j 17:23 -1776 Jul 30 j 14:08	17°M53'30	4.13221 AU
behind sun begin	-1782 Jun 08 j 20:49	0° П 45'38	0 02 03	desc. node	-1776 Sep 21 j 07:11	22°M03'49	
behind sun end	-1782 Jun 09 j 05:09	0° I 54'52		dese. Hode	-1776 Nov 02 j 22:28	0° ⊼	
max. Earth dist.	-1782 Jun 09 j 19:50	1° I I03'05	6.26464 AU	evening set	-1776 Dec 02 j 05:58	6° ∡ ³38'51	
morning rise	-1782 Jun 22 j 12:15	3° Ⅲ 52'21		max. Earth dist.	-1776 Dec 14 j 09:15	9° ∡ 30'33	6.09312 AU
asc. node	-1782 Jun 27 j 12:32	4° I 58'37			, j		
retrograde	-1782 Oct 23 j 20:21	21° I I42'10		conjunction	-1776 Dec 15 j 00:27	9° ∡ ³39'32	0°-9'-39
opposition	-1782 Dec 22 j 12:06	16° Ⅱ 43'00	0°27'43	minimum elong	-1776 Dec 15 j 00:26	9° ∡ ³39'31	0°09'42
min. Earth dist.	-1782 Dec 22 j 05:36	16° Ⅱ 45'10	4.32008 AU	behind sun begin	-1776 Dec 14 j 17:47	9° ∡ ³35'36	
direct	-1781 Feb 21 j 09:36	11° Ⅱ 39′50		behind sun end	-1776 Dec 15 j 07:06	9° ∡ ¹43'26	
evening set	-1781 Jun 28 j 21:22	29° Ⅱ 43'47		morning rise	-1776 Dec 27 j 20:38	12° ∡ ¹41′20	
	-1781 Jun 30 j 03:11	0ංම			-1775 Mar 28 j 09:05	0°ප	
				retrograde	-1775 May 06 j 14:12	2° る 20'16	
conjunction	-1781 Jul 12 j 07:23	2° © 39'44	0°38'39		-1775 Jun 15 j 00:59	30°₹ ⋌ 7	
	·		0°38'40	opposition	-1775 Jul 06 j 06:33	27° ∡ °22′10	0°-48'00
minimum elong	-1781 Jul 12 j 07:20	2° © 39'43			-		
max. Earth dist.	-1781 Jul 12 j 07:20 -1781 Jul 12 j 03:09	2° 9 37'25	6.36642 AU	min. Earth dist.	-1775 Jul 06 j 06:37	27° ₹ 22'09	4.04207 AU
max. Earth dist. morning rise	-1781 Jul 12 j 07:20 -1781 Jul 12 j 03:09 -1781 Jul 25 j 14:42	2° © 37'25 5° © 34'12		min. Earth dist. direct	-1775 Jul 06 j 06:37 -1775 Sep 03 j 11:53	27° х 22′09 22° х 28′52	4.04207 AU
max. Earth dist. morning rise retrograde	-1781 Jul 12 j 07:20 -1781 Jul 12 j 03:09 -1781 Jul 25 j 14:42 -1781 Nov 23 j 14:02	2°\$37'25 5°\$34'12 22°\$42'42	6.36642 AU	direct	-1775 Jul 06 j 06:37 -1775 Sep 03 j 11:53 -1775 Nov 13 j 18:40	27° メ 22'09 22° メ 28'52 0°る	4.04207 AU
max. Earth dist. morning rise retrograde opposition	-1781 Jul 12 j 07:20 -1781 Jul 12 j 03:09 -1781 Jul 25 j 14:42 -1781 Nov 23 j 14:02 -1780 Jan 22 j 14:25	2°\$37'25 5°\$34'12 22°\$42'42 17°\$47'17	6.36642 AU 1°19'28		-1775 Jul 06 j 06:37 -1775 Sep 03 j 11:53	27° メ 22'09 22° メ 28'52 0°る	4.04207 AU
max. Earth dist. morning rise retrograde opposition min. Earth dist.	-1781 Jul 12 j 07:20 -1781 Jul 12 j 03:09 -1781 Jul 25 j 14:42 -1781 Nov 23 j 14:02 -1780 Jan 22 j 14:25 -1780 Jan 23 j 00:51	2°\$37'25 5°\$34'12 22°\$42'42 17°\$47'17 17°\$43'52	6.36642 AU	direct evening set	-1775 Jul 06 j 06:37 -1775 Sep 03 j 11:53 -1775 Nov 13 j 18:40 -1774 Jan 06 j 01:53	27° ₹22'09 22° ₹28'52 0° ₹ 11° ₹42'49	
max. Earth dist. morning rise retrograde opposition	-1781 Jul 12 j 07:20 -1781 Jul 12 j 03:09 -1781 Jul 25 j 14:42 -1781 Nov 23 j 14:02 -1780 Jan 22 j 14:25 -1780 Jan 23 j 00:51 -1780 Mar 24 j 15:21	2°\$37'25 5°\$34'12 22°\$42'42 17°\$47'17 17°\$43'52 12°\$43'53	6.36642 AU 1°19'28	direct evening set conjunction	-1775 Jul 06 j 06:37 -1775 Sep 03 j 11:53 -1775 Nov 13 j 18:40 -1774 Jan 06 j 01:53 -1774 Jan 19 j 02:34	27° \$\times 22'09 22° \$\times 28'52 0° \times 11° \times 42'49 14° \times 50'04	0°-51'-14
max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-1781 Jul 12 j 07:20 -1781 Jul 12 j 03:09 -1781 Jul 25 j 14:42 -1781 Nov 23 j 14:02 -1780 Jan 22 j 14:25 -1780 Jan 23 j 00:51 -1780 Mar 24 j 15:21 -1780 Jul 27 j 14:47	2°\$37'25 5°\$34'12 22°\$42'42 17°\$47'17 17°\$43'52 12°\$43'53 0°Ω	6.36642 AU 1°19'28	direct evening set conjunction minimum elong	-1775 Jul 06 j 06:37 -1775 Sep 03 j 11:53 -1775 Nov 13 j 18:40 -1774 Jan 06 j 01:53 -1774 Jan 19 j 02:34 -1774 Jan 19 j 02:31	27° ズ22'09 22° ズ28'52 0° 云 11° 云42'49 14° 云50'04 14° 云50'02	0°-51'-14 0°51'16
max. Earth dist. morning rise retrograde opposition min. Earth dist.	-1781 Jul 12 j 07:20 -1781 Jul 12 j 03:09 -1781 Jul 25 j 14:42 -1781 Nov 23 j 14:02 -1780 Jan 22 j 14:25 -1780 Jan 23 j 00:51 -1780 Mar 24 j 15:21	2°\$37'25 5°\$34'12 22°\$42'42 17°\$47'17 17°\$43'52 12°\$43'53 0°\$\Omega\$0 0°\$\Omega\$1'11	6.36642 AU 1°19'28	direct evening set conjunction	-1775 Jul 06 j 06:37 -1775 Sep 03 j 11:53 -1775 Nov 13 j 18:40 -1774 Jan 06 j 01:53 -1774 Jan 19 j 02:34	27° ₹22'09 22° ₹28'52 0° ₹ 11° ₹42'49 14° ₹50'04 14° ₹50'02 14° ₹57'55	0°-51'-14

•	ical year style is used: The		_		1775 DCE in historical		ige 12
Attention, astronom		0°≈	in astronomicai co	min. Earth dist.	-1768 Jan 27 j 07:58		
ratra ara da	-1774 Mar 27 j 21:16	0 ≈ 8°≈21'39			-		4.40843 AU
retrograde	-1774 Jun 13 j 07:36		10 201 20	direct	-1768 Mar 28 j 23:04		
opposition	-1774 Aug 12 j 11:59	3°≈19'38	-1°-39'-29	. ,	-1768 Jul 11 j 17:25	0° Ω	
min. Earth dist.	-1774 Aug 11 j 17:05	3°≈25'58	3.98681 AU	evening set	-1768 Aug 03 j 06:49	4° Ω 45'55	C 42011 ATT
P	-1774 Sep 08 j 22:50			max. Earth dist.	-1768 Aug 14 j 23:59	7° Ω 18'44	6.42011 AU
direct	-1774 Oct 09 j 17:11	28° る 25'58			.=	0	
	-1774 Nov 09 j 06:40	0° ≈		conjunction	-1768 Aug 16 j 06:48	7° Ω 35'32	1°09'40
_	-1773 Jan 30 j 06:51			minimum elong	-1768 Aug 16 j 06:46	7° Ω 35'31	1°09'41
evening set	-1773 Feb 11 j 15:37	17° ≈ 55'05		morning rise	-1768 Aug 29 j 03:45	10° Ω 23'39	
					-1768 Sep 19 j 20:46	15° Ω	
conjunction	-1773 Feb 25 j 00:01	21° ≈ 06'30	-1°-14'-16	retrograde	-1768 Dec 27 j 07:23	27° Ω 16'43	
minimum elong	-1773 Feb 25 j 00:00	21° ≈ 06'30	1°14'18	opposition	-1767 Feb 25 j 18:41	22° Ω 24'18	1°49'55
max. Earth dist.	-1773 Feb 26 j 16:22		5.98699 AU	min. Earth dist.	-1767 Feb 26 j 21:18		4.41699 AU
morning rise	-1773 Mar 10 j 11:32			direct	-1767 Apr 29 j 11:36	17° Ω 22'07	
	-1773 Apr 03 j 22:56	0° ∀			-1767 Aug 10 j 06:14	0° m	
retrograde	-1773 Jul 20 j 14:21	14°) 44'43		evening set	-1767 Sep 03 j 06:56	5°№06'54	
min. Earth dist.	-1773 Sep 17 j 00:59	9° ∺ 50'19	4.00933 AU	max. Earth dist.	-1767 Sep 14 j 05:12	7° ™ 30'56	6.39544 AU
opposition	-1773 Sep 18 j 07:23	9° ∺ 39'59	-1°-52'-34				
direct	-1773 Nov 15 j 05:30	4°) 44′00		conjunction	-1767 Sep 16 j 00:09	7° ₯ 54'37	1°16'33
evening set	-1772 Mar 19 j 23:26	24°) €06'12		minimum elong	-1767 Sep 16 j 00:09	7° ™ 54'37	1°16'33
				morning rise	-1767 Sep 28 j 14:39	10°Mp41'10	
conjunction	-1772 Apr 02 j 14:46	27°) € 18'01	-1°-8'-44	retrograde	-1766 Jan 27 j 17:14	27° m 50'23	
minimum elong	-1772 Apr 02 j 14:49	27°) 18′02	1°08'46	opposition	-1766 Mar 29 j 13:37	22° m 58'48	1°45'02
max. Earth dist.	-1772 Apr 04 j 16:55	27°) 47′26	6.04706 AU	min. Earth dist.	-1766 Mar 30 j 22:30	22° m/48'20	4.36120 AU
	-1772 Apr 14 j 03:35	0° Υ		direct	-1766 May 31 j 02:33	17° m 58'49	
morning rise	-1772 Apr 16 j 08:36	0° Υ 30'52			-1766 Sep 06 j 17:34	0∘ ⊽	
retrograde	-1772 Aug 24 j 01:28	20° Ƴ 14'17		evening set	-1766 Oct 04 j 04:30	5° ≏ 56'17	
min. Earth dist.	-1772 Oct 21 j 07:23	15° Υ 19'50	4.10004 AU	max. Earth dist.	-1766 Oct 14 j 20:38	8° ≏ 20'07	6.31237 AU
opposition	-1772 Oct 22 j 14:07	15° Y 09′20	-1°-22'-56		J		
direct	-1772 Dec 20 j 02:53	10° Y 10′06		conjunction	-1766 Oct 16 j 18:27	8° ≏ 45'56	1°01'57
evening set	-1771 Apr 25 j 17:02	29° Υ 07'02		minimum elong	-1766 Oct 16 j 18:29	8° £ 45'57	1°01'56
evening sec	-1771 Apr 29 j 14:22	0°8		morning rise	-1766 Oct 29 j 07:13	11° Ω 35'10	1 0100
		• •		retrograde	-1765 Mar 01 j 20:21	29° £ 24'56	
conjunction	-1771 May 09 j 11:50	2° 8 15'19	0°-38'-14	opposition	-1765 May 01 j 19:52	24° £ 32'27	1°09'25
minimum elong	-1771 May 09 j 11:53	2° 8 15'20	0°38'14	min. Earth dist.	-1765 May 03 j 02:25		4.25533 AU
max. Earth dist.	-1771 May 11 j 05:48	2° 8 39'15	6.16057 AU	direct	-1765 Jul 02 j 14:08	19° £ 35'09	4.23333710
morning rise	-1771 May 23 j 06:52	5° 8 23'29	0.10037 710	direct	-1765 Sep 29 j 13:01	0°M	
morning 1130	-1771 Jul 07 j 09:45			evening set	-1765 Nov 04 j 20:01	7°M56'34	
retrograde	-1771 Sep 26 j 12:13			max. Earth dist.	-1765 Nov 16 j 01:17		6 10303 ATT
opposition	-1771 Nov 24 j 23:41		0°-26'-8	max. Earth dist.	-1/03 NOV 10 J 01.17	10 11631 37	0.19303 AU
min. Earth dist.	-1771 Nov 24 j 23.41 -1771 Nov 24 j 03:58		4.22359 AU	conjunction	-1765 Nov 17 j 11:07	100M 51/22	0°28'18
IIIII. Eartii dist.	·		4.22339 AU	minimum elong	-1765 Nov 17 j 11:07		0°28'17
Ji 4	-1771 Dec 29 j 16:34			U	3	10°M51'34	0 2817
direct	-1770 Jan 23 j 18:10			morning rise	-1765 Nov 30 j 02:23	13°M46'54	
1-	-1770 Feb 18 j 02:02				-1765 Dec 05 j 09:48		
asc. node	-1770 May 08 j 06:23				-1764 Feb 23 j 11:17	0° ⊀ ⁷	
	-1770 May 19 j 21:47	0°II		retrograde	-1764 Apr 04 j 22:45	2° ∡ ³34'48	
evening set	-1770 May 30 j 22:05	2° Ⅱ 24'36			-1764 May 16 j 22:45		0000110
	1770 1 12:11:1	E0 TT 0 (10 C	0002150	opposition	-1764 Jun 04 j 21:24		0°09'40
conjunction	-1770 Jun 13 j 14:14	5° Ⅱ 26′28	0°03'59	min. Earth dist.	-1764 Jun 05 j 14:00		4.13024 AU
minimum elong	-1770 Jun 13 j 14:13	5° Ⅱ 26′28	0°04'01	desc. node	-1764 Aug 01 j 08:00		
behind sun begin	-1770 Jun 13 j 06:02	5° Ⅱ 21'57		direct	-1764 Aug 04 j 07:16		
behind sun end	-1770 Jun 13 j 22:25	5° Ⅱ 31'00			-1764 Oct 14 j 06:25	0° ∡ 7	
max. Earth dist.	-1770 Jun 14 j 09:20	5° Ⅱ 37'04	6.28472 AU	evening set	-1764 Dec 07 j 00:44	11° ≯ 36'32	
morning rise	-1770 Jun 27 j 04:46	8° Ⅱ 27'19					
retrograde	-1770 Oct 28 j 01:43	26° Ⅱ 08'48		conjunction	-1764 Dec 19 j 19:59		0°-15'-58
opposition	-1770 Dec 26 j 19:32	21° Ⅱ 10′08	0°35'45	minimum elong	-1764 Dec 19 j 19:58		0°16'02
min. Earth dist.	-1770 Dec 26 j 15:10	21° Ⅱ 11'35	4.33761 AU	behind sun begin	-1764 Dec 19 j 18:36		
direct	-1769 Feb 25 j 21:21	16° Ⅱ 06'49		behind sun end	-1764 Dec 19 j 21:19	14° ₹ ³39'12	
	-1769 Jun 14 j 01:49	0ಂತಾ		max. Earth dist.	-1764 Dec 19 j 08:46		6.07375 AU
evening set	-1769 Jul 03 j 08:33	4° 5 06'32		morning rise	-1763 Jan 01 j 17:14		
					-1763 Feb 27 j 17:45	5°0	
conjunction	-1769 Jul 16 j 17:25	7° 5 01'26	0°43'25	retrograde	-1763 May 11 j 22:08	7° る 29'44	
minimum elong	-1769 Jul 16 j 17:22	7° 5 01'24	0°43'26	opposition	-1763 Jul 11 j 12:29	2° ප 31'00	0°-56'-49
max. Earth dist.	-1769 Jul 16 j 10:11	6° 5 57'29	6.38002 AU	min. Earth dist.	-1763 Jul 11 j 09:30	2° ප 31'59	4.02720 AU
morning rise	-1769 Jul 29 j 23:17	9° © 54'47			-1763 Jul 31 j 16:18	30°₹ ҂ 7	
retrograde	-1769 Nov 27 j 17:18	26°\$58'41		direct	-1763 Sep 08 j 14:10	27° ∡ ³37'45	
opposition	-1768 Jan 26 j 19:01	22°503'47	1°24'52		-1763 Oct 16 j 20:29	5°0	

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 13 Attention, astronomical year style is used: The year -1762 in astronomical counting style is the year 1763 BCE in historical counting style.

Attention, astronom	ical year style is used: Tl	he year -1762	in astronomical co	unting style is the year	1763 BCE in historical of	counting style	
evening set	-1762 Jan 11 j 04:18	16° ප 555'46		max. Earth dist.	-1757 Jul 20 j 16:57		6.38971 AU
				morning rise	-1757 Aug 03 j 09:02		
conjunction	-1762 Jan 24 j 06:09	20° පි 03'53			-1757 Nov 03 j 00:13	$0^{\circ}\Omega$	
minimum elong	-1762 Jan 24 j 06:06	20°る03'52		retrograde	-1757 Dec 01 j 22:33	1° Ω 18′28	
max. Earth dist.	-1762 Jan 25 j 01:10		5.99630 AU		-1757 Dec 30 j 20:13	30°₹©	
morning rise	-1762 Feb 06 j 10:54			opposition	-1756 Jan 31 j 01:44		
	-1762 Mar 07 j 17:39	0° ≈		min. Earth dist.	-1756 Jan 31 j 16:42		4.41343 AU
retrograde	-1762 Jun 18 j 16:51	13°≈39'45	10, 421, 50	direct	-1756 Apr 02 j 07:43		
opposition	-1762 Aug 17 j 18:54		-1°-43'-59	. ,	-1756 Jun 23 j 20:51	0° N	
min. Earth dist.	-1762 Aug 16 j 21:23	8°≈44'25	3.98505 AU	evening set	-1756 Aug 07 j 15:00	9° Ω 05'29	C 41005 ATT
direct	-1762 Oct 14 j 21:28	3°≈43'18 15°≈		max. Earth dist.	-1756 Aug 19 j 05:26	11.9630.33	6.41995 AU
evening set	-1761 Jan 12 j 00:11 -1761 Feb 16 j 22:40			conjunction	-1756 Aug 20 j 13:56	110 05/130	1°11'51
evening set	-1/01 Feb 10 j 22.40	23 ~12 29		minimum elong	-1756 Aug 20 j 13:54		1°11'52
conjunction	-1761 Mar 02 j 07:56	26°∞24'06	-1°-15'-16	morning rise	-1756 Sep 02 j 09:41		1 11 32
minimum elong	-1761 Mar 02 j 07:56	26°≈24'06	1°15'17	morning risc	-1756 Sep 02 j 05:41		
max. Earth dist.	-1761 Mar 04 j 02:05	26°≈49'16			-1756 Nov 29 j 05:49	0° m	
morning rise	-1761 Mar 15 j 20:37	29°≈37'22	3.57203 110	retrograde	-1756 Dec 31 j 14:41	1° Mp 36'23	
morning rise	-1761 Mar 17 j 10:54	0° ∀		retrograde	-1755 Feb 02 j 02:29	30°RΩ	
retrograde	-1761 Jul 25 j 16:09	19° ¥ 58'06		opposition	-1755 Mar 02 j 03:09	26° Ω 44'14	1°51'06
min. Earth dist.	-1761 Sep 22 j 01:47	15°) €03'58	4.02054 AU	min. Earth dist.	-1755 Mar 03 j 07:20		
opposition	-1761 Sep 23 j 09:48	14°) €53'04	-1°-50'-43	direct	-1755 May 03 j 20:14		
direct	-1761 Nov 20 j 08:55	9°) 56'34			-1755 Jul 23 i 05:28	0° m/y	
evening set	-1760 Mar 25 j 05:16	29°) 15′06		evening set	-1755 Sep 07 j 14:07	9° m 28'40	
C	-1760 Mar 28 j 10:29	0° Υ		max. Earth dist.	-1755 Sep 18 j 09:00		6.38557 AU
	-						
conjunction	-1760 Apr 07 j 21:27	2° Y 26'31	-1°-5'-41	conjunction	-1755 Sep 20 j 06:32	12° Mp 16'29	1°15'46
minimum elong	-1760 Apr 07 j 21:30	2° Y 26'33	1°05'41	minimum elong	-1755 Sep 20 j 06:33	12°Mp16'29	1°15'47
max. Earth dist.	-1760 Apr 10 j 00:22	2° Y 56'16	6.06317 AU	morning rise	-1755 Oct 02 j 20:42	15°Mp03'16	
morning rise	-1760 Apr 21 j 15:35	5° Ƴ 38'46			-1755 Dec 24 j 05:43	0∘ ⊽	
retrograde	-1760 Aug 28 j 22:08	25° Y 12'51		retrograde	-1754 Feb 01 j 06:39	2° ₽ 17'19	
min. Earth dist.	-1760 Oct 26 j 04:37	20° Y 18′00	4.11895 AU		-1754 Mar 12 j 17:52	30°₽ ™	
opposition	-1760 Oct 27 j 09:37	20° Y 08′06	-1°-16'-2	opposition	-1754 Apr 03 j 02:38	27° m 25'45	1°41'50
direct	-1760 Dec 25 j 03:13	15° Y 08′25		min. Earth dist.	-1754 Apr 04 j 12:12		4.34725 AU
	-1759 Apr 12 j 18:21	0° 8		direct	-1754 Jun 04 j 13:45		
evening set	-1759 Apr 30 j 17:47	3° 8 59'56			-1754 Aug 19 j 00:12	0∘ ত	
				evening set	-1754 Oct 08 j 13:20		
conjunction	-1759 May 14 j 12:28	7° 8 07'18		max. Earth dist.	-1754 Oct 19 j 07:34	12° £ 52'37	6.29562 AU
minimum elong	-1759 May 14 j 12:30				1754 0 + 21 : 02 24	120 0 1712 (0050115
max. Earth dist.	-1759 May 16 j 03:56		6.18064 AU	conjunction	-1754 Oct 21 j 03:24		
morning rise	-1759 May 28 j 07:12			minimum elong	-1754 Oct 21 j 03:27		0°58'14
retrograde	-1759 Jun 18 j 21:16 -1759 Sep 30 j 22:50			morning rise	-1754 Nov 02 j 16:11 -1753 Jan 12 j 15:43	0°M	
opposition	-1759 Nov 29 j 12:08		0°-17'-17	retrograde	-1753 Jan 12 j 15.43 -1753 Mar 06 j 15:10	4°M05'02	
min. Earth dist.	-1759 Nov 28 j 17:43			retrograde	-1753 Apr 30 j 09:04		
direct	-1758 Jan 28 j 10:29	18° 8 40'25	4.24302 110	opposition	-1753 May 06 j 15:14		1°02'11
asc. node	-1758 Mar 18 j 05:38			min. Earth dist.	-1753 May 07 j 19:58		
use. noue	-1758 May 02 j 14:13	0°II		direct	-1753 Jul 07 j 04:34		25,00110
evening set	-1758 Jun 04 j 16:19	7° Ⅱ 01'12			-1753 Sep 08 j 18:59	0°M	
S	J			evening set	-1753 Nov 09 j 09:35		
conjunction	-1758 Jun 18 j 07:36	10° Ⅱ 01'59	0°09'55	<i>5</i>	-1753 Nov 19 j 08:40	15°M	
minimum elong	-1758 Jun 18 j 07:35	10° Ⅱ 01'58	0°09'57	max. Earth dist.	-1753 Nov 20 j 17:27	15°M19'04	6.17488 AU
behind sun begin	-1758 Jun 18 j 00:57	9° Ⅱ 58'19			•		
behind sun end	-1758 Jun 18 j 14:13	10° Ⅱ 05'38		conjunction	-1753 Nov 22 j 00:58	15°M37'23	0°22'26
max. Earth dist.	-1758 Jun 18 j 22:29	10° Ⅱ 10′13	6.30214 AU	minimum elong	-1753 Nov 22 j 00:59	15°M37'24	0°22'25
morning rise	-1758 Jul 01 j 21:02	13° Ⅱ 01'39		morning rise	-1753 Dec 04 j 17:00	18°M33'51	
	-1758 Oct 13 j 01:51	0ංම			-1752 Jan 27 j 10:43	0° ∡ ¹	
retrograde	-1758 Nov 01 j 09:44	0° © 35'59		retrograde	-1752 Apr 10 j 01:35	7° ∡ ³30'43	
	-1758 Nov 20 j 13:22	30°RⅡ		opposition	-1752 Jun 09 j 23:08	2° ∡ ³35′16	0°00'11
opposition	-1758 Dec 31 j 03:34	25° Ⅱ 37'56		min. Earth dist.	-1752 Jun 10 j 13:07	2° ∡ ³30'45	4.11378 AU
min. Earth dist.	-1758 Dec 31 j 02:30		4.35177 AU	desc. node	-1752 Jun 11 j 00:49	2° ∡ ¹26'59	
direct	-1757 Mar 02 j 10:16				-1752 Jul 01 j 02:27		
	-1757 May 27 j 08:47	0ංම		direct	-1752 Aug 09 j 05:05	27°M40'59	
evening set	-1757 Jul 07 j 20:46	8° © 31'15			-1752 Sep 16 j 16:02	0° ∡ 7	
				evening set	-1752 Dec 11 j 20:31	16° ∡ ³36′24	
conjunction	-1757 Jul 21 j 04:25				1860 5	100 ======	00.00
minimum elong	-1757 Jul 21 j 04:22	25'14في25'14	U~48°04	conjunction	-1752 Dec 24 j 16:40	19~ × ′39′13	0~-22'-14

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1752 in astronomical counting style is the year 1753 BCE in historical counting style. -1752 Dec 24 j 16:38 19° **x** 39'12 0°22'16 behind sun end -1746 Jun 22 j 23:03 14°**Ⅲ**32'37 minimum elong -1752 Dec 24 j 10:54 19°**✗**35'47 -1746 Jun 23 j 09:48 14°ДЗ8'33 6.31512 AU max. Earth dist. 6 06073 AU max Earth dist -1751 Jan 06 j 14:46 22° ₹ 43'18 -1746 Jul 06 j 10:26 17°**Ⅲ**30'46 morning rise morning rise -1751 Feb 07 j 12:29 0°ಕ -1746 Sep 08 j 04:49 0.00 -1751 May 17 j 05:05 12°♂37'59 -1746 Nov 05 j 14:28 retrograde retrograde 4°959'47 -1745 Jan 04 j 10:09 opposition -1751 Jul 16 j 17:28 7°**る**38'46 -1°-5'-10 opposition 0°902'15 0°51'09 -1745 Jan 04 j 10:39 min. Earth dist. -1751 Jul 16 j 11:31 7°る40'43 4.01923 AU min. Earth dist. 0°902'05 4.36122 AU direct -1751 Sep 13 j 15:11 2°**る**45'37 -1745 Jan 04 j 16:57 30°R∏ evening set -1750 Jan 16 j 05:49 22°**궁**05'24 direct -1745 Mar 06 j 19:12 24°**Ⅲ**58'50 -1745 May 06 j 04:33 0ಂಣ conjunction -1750 Jan 29 j 08:27 25° **조**14'01 -1°00'-10 evening set -1745 Jul 12 j 07:33 12°**9**53'57 -1750 Jan 29 j 08:24 25°る13'59 minimum elong 1°00'13 -1750 Jan 30 j 06:20 25°る27'09 -1745 Jul 25 j 13:57 15°547'15 max. Earth dist. 5.99381 AU conjunction 0°52'18 morning rise -1750 Feb 11 j 14:23 28°₹24'24 minimum elong -1745 Jul 25 j 13:54 15°547'13 0°52'20 -1750 Feb 18 j 07:37 0°**≈** max. Earth dist. -1745 Jul 24 j 22:44 15°**©**38'56 6.39498 AU -1750 May 04 j 07:24 15°≈ morning rise -1745 Aug 07 j 17:22 18°938'59 retrograde -1750 Jun 23 j 20:13 18°≈51'14 -1745 Oct 04 j 10:48 $0^{\circ}\Omega$ -1750 Aug 13 j 23:03 15°R≈ retrograde -1745 Dec 06 j 05:03 5°**Ω**38′06 opposition -1750 Aug 22 j 22:30 13°≈48'11 -1°-47'-31 opposition -1744 Feb 04 j 08:26 0°Ω44'03 1°34'30 min. Earth dist. -1750 Aug 21 j 22:10 13°≈56'22 3.98853 AU min. Earth dist. -1744 Feb 05 j 02:09 0°**Ω**38'18 4.41446 AU direct -1750 Oct 19 j 23:10 8°≈54'01 -1744 Feb 10 j 00:37 30°R 5 -1750 Dec 21 i 19:38 15°≈ direct -1744 Apr 06 j 17:16 25°\$40'57 -1749 Feb 22 i 02:11 28°≈21'42 -1744 Jun 01 i 19:29 $0^{\circ}\Omega$ evening set -1749 Feb 28 j 23:48 0°**∀** -1744 Aug 11 i 23:03 13° Ω 25'56 evening set -1744 Aug 19 j 04:01 15°**Ω** -1749 Mar 07 j 12:35 1°**)** 33'22 -1°-15'-38 max. Earth dist. -1744 Aug 23 j 09:43 15° Ω 55'32 6.41655 AU conjunction -1749 Mar 07 j 12:35 1°\#33'22 1°15'39 minimum elong -1749 Mar 09 j 09:54 2°**)** €00'21 6.00100 AU -1744 Aug 24 j 20:59 $16^{\circ}\Omega$ 14'49 1° 13'37 max. Earth dist. conjunction -1749 Mar 21 j 01:58 4°**\(\frac{4}{46}\)**32 -1744 Aug 24 j 20:58 16°**Ω**14'48 morning rise minimum elong 1°13'38 -1749 Jul 30 j 16:11 25°**₭**01'42 -1744 Sep 06 j 15:51 19° Ω 02'15 retrograde morning rise -1749 Sep 27 j 00:46 20° **米** 07'13 4.03383 AU -1744 Oct 31 j 23:08 min. Earth dist. 0° m -1743 Jan 04 j 22:51 -1749 Sep 28 j 08:06 19° **★** 56'33 -1°-48'-4 retrograde 5° m 58'14 opposition -1743 Mar 06 j 12:34 -1749 Nov 25 j 09:52 14°**米**59'38 1° mg 06'12 1°51'37 direct opposition -1748 Mar 11 j 17:21 min. Earth dist. -1743 Mar 07 j 17:21 0°Υ 0° To 56'59 4.40456 AU -1748 Mar 30 j 07:00 4°Υ14'05 -1743 Mar 15 j 05:03 30°R**Ω** evening set -1743 May 08 j 04:54 $26^{\circ}\Omega$ 04'35 direct -1748 Apr 12 j 23:44 7°**Y**25'02 -1°-2'-15 conjunction -1743 Jun 30 j 11:09 0° M minimum elong -1748 Apr 12 j 23:47 7°**Υ**25'04 1°02'14 evening set -1743 Sep 11 j 21:30 13° m 52'39 max. Earth dist. -1748 Apr 15 j 01:50 7°**Y**54'10 6.07949 AU max. Earth dist. -1743 Sep 22 j 17:06 16° Mp 16'02 6.37499 AU -1748 Apr 26 j 18:19 10°**Y**36'42 morning rise -1748 Aug 29 j 08:15 0° 8 conjunction -1743 Sep 24 j 13:28 16° Mp 40'39 1°14'33 -1748 Sep 02 j 12:35 0°**8**01'45 -1743 Sep 24 j 13:29 16° m 40'40 retrograde minimum elong -1748 Sep 06 j 16:33 30°R℃ -1743 Oct 07 j 03:04 19° m 27'40 morning rise min. Earth dist. -1748 Oct 30 j 20:09 25°**Υ**'07'00 4.13656 AU -1743 Nov 27 j 23:49 0∘**⊽** -1748 Nov 01 j 00:39 24°**Υ**57'17 -1742 Feb 05 j 19:52 opposition -1°-8'-52 retrograde 6°**£**46'38 -1748 Dec 29 i 20:50 19°**γ**'57'12 direct opposition -1742 Apr 07 i 16:53 1°**£**55'00 1°37'57 -1747 Mar 25 i 20:50 0°8 min. Earth dist. -1742 Apr 09 i 02:11 1°**2**44'25 4.33399 AU evening set -1747 May 05 j 14:42 8°**8**44'12 -1742 Apr 23 i 03:57 30°R m direct -1742 Jun 09 j 02:07 26° m 55'47 -1747 May 19 j 09:13 11°\(\begin{aligned}
 50'45 0°-27'-4 \end{aligned} -1742 Jul 25 j 07:45 conjunction 0∘∙თ -1747 May 19 j 09:15 11°\(\begin{align*} \begin{al -1742 Oct 12 j 22:39 14° **2**59'27 minimum elong evening set -1747 May 20 j 20:26 12°**8**10'40 max. Earth dist. -1742 Oct 23 j 16:54 17°**2**25'35 6.28071 AU max. Earth dist. 6.19820 AU -1747 Jun 02 j 03:35 14°**8**56'57 morning rise -1747 Jun 02 j 09:02 15°**8** conjunction -1742 Oct 25 j 12:31 17°**2**50'21 0°54'09 -1747 Aug 19 j 19:53 Π °0 minimum elong -1742 Oct 25 j 12:33 17°**£**50'23 0°54'08 -1742 Nov 07 j 01:39 20°**£**41'04 retrograde -1747 Oct 05 j 08:57 3°**Ⅱ**18'44 morning rise -1747 Nov 20 j 22:13 30°R**8** -1742 Dec 20 j 21:25 0°M -1747 Dec 03 j 21:46 28°817'16 0°-8'-38 -1741 Mar 11 j 10:37 opposition retrograde 8°M45'48 min. Earth dist. -1747 Dec 03 j 06:39 28°822'22 4.25885 AU -1741 May 11 j 11:03 opposition 3°M52'44 0°54'30 -1746 Jan 27 j 08:00 23°**8**18'02 -1741 May 12 j 13:56 asc. node min. Earth dist. 3°M.44'09 4.22123 AU direct -1746 Feb 02 j 01:13 23°**8**14'50 -1741 Jun 15 j 12:30 30°R Ω -1746 Apr 12 j 23:10 0°**Ⅱ** direct -1741 Jul 11 j 20:54 28°**⊆**56'17 evening set -1746 Jun 09 j 07:28 11°**Ⅲ**32'08 -1741 Aug 07 j 03:02 0° M -1741 Nov 03 j 09:01 15°M conjunction -1746 Jun 22 j 22:03 14°**Ⅲ**32'04 0°15'38 evening set -1741 Nov 13 j 22:48 17° ML 25'28 -1746 Jun 22 j 22:02 14°**Ⅲ**32'04 0°15'40 max. Earth dist. -1741 Nov 25 j 11:29 20°M 06'18 6.15968 AU minimum elong

-1746 Jun 22 j 21:02 14°**II**31'30

behind sun begin

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 15

Attention, astronomical year style is used: The year -1741 in astronomical counting style is the year 1742 BCE in historical counting style.

conjunction -1741 Nov 26 j 14:47 20°M22'14 0°16'26 morning rise -1735 Jun 07 j 00:36 19°841'01

Attention, astronom	ical year style is used: Th	ne year -1741	in astronomical cou	inting style is the year			
conjunction	-1741 Nov 26 j 14:47	20° M $22'14$	0°16'26	morning rise	-1735 Jun 07 j 00:36	19° 8 41'01	
minimum elong	-1741 Nov 26 j 14:48	20°M22'15	0°16'24		-1735 Jul 26 j 13:06	Π $^{\circ}0$	
morning rise	-1741 Dec 09 j 07:20	23°M19'36		retrograde	-1735 Oct 09 j 18:51	7° Ⅱ 55'31	
-	-1740 Jan 08 j 00:46	0° ∡ ″		asc. node	-1735 Dec 07 j 09:01	3° Ⅱ 02'33	
retrograde	-1740 Apr 15 j 03:01	12° ∡ ¹24′07		opposition	-1735 Dec 08 j 08:37	2° ∏ 54'37	0°00'09
desc. node	-1740 Apr 21 j 04:30	12° ∡ ¹20'39		min. Earth dist.	-1735 Dec 07 j 18:44	2° Ⅱ 59'17	4.27233 AU
opposition	-1740 Jun 14 j 23:51	7° ∡ 128'12	0°-9'-16		-1735 Dec 31 j 13:07		
min. Earth dist.	-1740 Jun 15 j 11:34	7° ∡ ¹24'25	4.10026 AU	direct	-1734 Feb 06 j 14:46		
direct	-1740 Aug 14 j 01:35	2° × ⁷ 34'10	1.10020710	uncet	-1734 Mar 16 j 05:37	0°Ⅱ	
evening set	-1740 Dec 16 j 15:21			evening set	-1734 Jun 14 j 00:30		
evening set	-1740 DCC 10 j 15.21	21 × 3237		evening set	-1734 Juli 14 j 00.30	10 Д0042	
aaniumatian	1740 Dag 20 i 12:06	249.726112	0°-28'-17	agniumation	-1734 Jun 27 j 14:01	100TO5!46	0°21'23
conjunction	-1740 Dec 29 j 12:06			conjunction	-		0°21'25
minimum elong	-1740 Dec 29 j 12:04		0°28'19	minimum elong	-1734 Jun 27 j 14:00		
max. Earth dist.	-1740 Dec 29 j 08:45		6.04988 AU	max. Earth dist.	-1734 Jun 27 j 20:51		6.32649 AU
morning rise	-1739 Jan 11 j 11:19			morning rise	-1734 Jul 11 j 01:26		
	-1739 Jan 21 j 07:36	0°₹			-1734 Aug 18 j 02:50	0ಂ ತಾ	
retrograde	-1739 May 22 j 08:35	17° る 41'39		retrograde	-1734 Nov 09 j 23:09	9° © 27'51	
opposition	-1739 Jul 21 j 20:38	12° る 41'49	-1°-12'-57	opposition	-1733 Jan 08 j 18:45	4° © 30'53	0°58'31
min. Earth dist.	-1739 Jul 21 j 11:23	12° る 44'52	4.01222 AU	min. Earth dist.	-1733 Jan 08 j 22:21	4° © 29'42	4.36991 AU
direct	-1739 Sep 18 j 14:16	7° る 48'37			-1733 Feb 20 j 14:39	30°Ŗ Ⅱ	
evening set	-1738 Jan 21 j 05:47	27° る 10'06		direct	-1733 Mar 11 j 08:21	29° Ⅲ 27'29	
	-1738 Feb 02 j 01:25	0° ≈			-1733 Mar 30 j 05:22	0 \circ \odot	
				evening set	-1733 Jul 16 j 19:59	17° © 21'11	
conjunction	-1738 Feb 03 j 09:32	0° ≈ 19'17	-1°-3'-54	max. Earth dist.	-1733 Jul 29 j 08:15	20°9504'29	6.40043 AU
minimum elong	-1738 Feb 03 j 09:29	0° ≈ 19'15	1°03'57		v		
max. Earth dist.	-1738 Feb 04 j 12:13		5.99121 AU	conjunction	-1733 Jul 30 j 01:20	20°513'48	0°56'22
morning rise	-1738 Feb 16 j 16:20	3° ≈ 30'11		minimum elong	-1733 Jul 30 j 01:17		0°56'24
morning rise	-1738 Apr 09 j 13:49	15° ≈		morning rise	-1733 Aug 12 j 03:23		0 002.
retrograde	-1738 Jun 29 j 00:28	23°≈57'54		morning rise	-1733 Sep 14 j 08:28	0°Ω	
min. Earth dist.	-1738 Aug 26 j 23:31	19°≈02'50	3.99079 AU	retrograde	-1733 Dec 10 j 11:16		
		19 ≈02 30 18°≈54'26	-1°-50'-14	opposition		5° Ω 08'36	1°38'38
opposition	-1738 Aug 28 j 00:25		-1 -30-14	**	-1732 Feb 08 j 17:05		
11	-1738 Sep 30 j 18:02	15°R≈		min. Earth dist.	-1732 Feb 09 j 11:22	5° Ω 02'41	4.41686 AU
direct	-1738 Oct 25 j 00:51	13°≈59'59		direct	-1732 Apr 11 j 02:37	0° Ω 05'45	
	-1738 Nov 18 j 06:48	15° ≈			-1732 Aug 03 j 02:32		
_	-1737 Feb 12 j 10:50	0°) {		evening set	-1732 Aug 16 j 08:19	17° Ω 50′18	
evening set	-1737 Feb 27 j 05:04	3° ∺ 27′00		max. Earth dist.	-1732 Aug 27 j 16:50	20° { ≀18'55	6.41583 AU
conjunction	-1737 Mar 12 j 16:24	6° ∺ 38'47	-1°-15'-27	conjunction	-1732 Aug 29 j 05:07		
minimum elong	-1737 Mar 12 j 16:24	6°) 38'47	1°15'29	minimum elong	-1732 Aug 29 j 05:06	20° Ω 38'45	1°15'03
max. Earth dist.	-1737 Mar 14 j 14:57	7° ₩ 06'25	6.00768 AU	morning rise	-1732 Sep 10 j 23:00	23° Ω 25'51	
morning rise	-1737 Mar 26 j 06:47	9° 升 52′02			-1732 Oct 12 j 06:35	O° Mp	
	-1737 Jul 30 j 16:18	0° Y		retrograde	-1731 Jan 09 j 08:45	10° Mp 22'56	
retrograde	-1737 Aug 04 j 13:51	0° Υ ′02'23		opposition	-1731 Mar 10 j 23:21	5° Mp 31'07	1°51'33
	-1737 Aug 09 j 11:04	30°Ŗ ℋ		min. Earth dist.	-1731 Mar 12 j 05:28	5° m/21'30	4.40092 AU
min. Earth dist.	-1737 Oct 01 j 20:58	25°) €08'10	4.04432 AU	direct	-1731 May 12 j 17:09	0° m/29'52	
opposition	-1737 Oct 03 j 05:09	24°) 57′11	-1°-44'-42	evening set	-1731 Sep 16 j 05:15	18° Mp 18'15	
direct	-1737 Nov 30 j 07:29	19° ¥ 59'50		max. Earth dist.	-1731 Sep 26 j 23:25		6.36867 AU
	-1736 Feb 22 j 12:35	$0^{\circ}\Upsilon$			1 3	•	
evening set	-1736 Apr 04 j 08:45	9° Ƴ 11'37		conjunction	-1731 Sep 28 j 20:35	21°m06'16	1°12'56
· · · · · · · · · · · · · · · · · · ·		, ,		minimum elong	-1731 Sep 28 j 20:37		
conjunction	-1736 Apr 18 j 02:02	12° Y 22'13	0°-58'-22	morning rise	-1731 Oct 11 j 09:52	-	1 12 33
minimum elong	-1736 Apr 18 j 02:05	12° Y 22'15	0°58'23	morning 1130	-1731 Nov 08 j 22:38	0° ʊ	
max. Earth dist.	-1736 Apr 18 j 02:03	12° Y 49'57	6.09278 AU	retrograde	-1730 Feb 10 j 07:45		
			0.09278 AU		-		1022122
morning rise	-1736 May 01 j 21:00	15° Y 33'26		opposition	-1730 Apr 12 j 06:47		1°33'32
,	-1736 Jul 12 j 05:51	0°8		min. Earth dist.	-1730 Apr 13 j 15:00		4.32536 AU
retrograde	-1736 Sep 07 j 04:52	4° 8 50'48		direct	-1730 Jun 13 j 13:51	1° Ω 25'18	
	-1736 Nov 04 j 01:02			evening set	-1730 Oct 17 j 06:52		
opposition	-1736 Nov 05 j 16:17	29° Y 46'37		max. Earth dist.	-1730 Oct 28 j 04:02	21° ≏ 58'17	6.27059 AU
min. Earth dist.	-1736 Nov 04 j 14:00		4.15102 AU				
direct	-1735 Jan 03 j 16:47	24° Y 46′09		conjunction	-1730 Oct 29 j 20:49		0°49'48
	-1735 Mar 04 j 04:17	9° 8		minimum elong	-1730 Oct 29 j 20:52	22° ≏ 21'31	0°49'48
evening set	-1735 May 10 j 12:21	13° 8 29'47		morning rise	-1730 Nov 11 j 09:58	25° £ 12'41	
	-1735 May 17 j 05:01	15° 8			-1730 Dec 03 j 00:19	0° M	
				retrograde	-1729 Mar 16 j 04:10	13°M22'56	
conjunction	-1735 May 24 j 06:49	16° 8 35'40	0°-21'-15	opposition	-1729 May 16 j 05:03	8°M29'36	0°46'37
minimum elong	-1735 May 24 j 06:51			min. Earth dist.	-1729 May 17 j 07:01	8°M21'19	4.21002 AU
minimum ciong							

direct

-1729 Jul 16 j 12:27 3°M 33'32

-1735 May 25 j 16:20 16°**8**54'33 6.21280 AU

max. Earth dist.

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 16 Attention, astronomical year style is used: The year -1729 in astronomical counting style is the year 1730 BCE in historical counting style.

Attention, astronom	nical year style is used: The	he year -1729	in astronomical co	unting style is the year	1730 BCE in historical of	counting style.	
	-1729 Oct 17 j 16:23	15°M		conjunction	-1723 May 29 j 03:36		
evening set	-1729 Nov 18 j 09:52			minimum elong	-1723 May 29 j 03:37		0°15'19
max. Earth dist.	-1729 Nov 29 j 23:53	24°M46'40	6.14833 AU	behind sun begin	-1723 May 29 j 01:40		
				behind sun end	-1723 May 29 j 05:34		
conjunction	-1729 Dec 01 j 02:08		0°10'29	max. Earth dist.	-1723 May 30 j 08:59		6.22568 AU
minimum elong	-1729 Dec 01 j 02:08		0°10'27	morning rise	-1723 Jun 11 j 21:03		
behind sun begin	-1729 Nov 30 j 19:48			_	-1723 Jul 07 j 17:34	0°II	
behind sun end	-1729 Dec 01 j 08:28			retrograde	-1723 Oct 14 j 05:01		
morning rise	-1729 Dec 13 j 19:30			asc. node	-1723 Oct 17 j 16:14		
	-1729 Dec 22 j 11:04	0° √		opposition	-1723 Dec 12 j 19:07	7° Ⅱ 30′23	0°08'53
desc. node	-1728 Mar 02 j 22:22			min. Earth dist.	-1723 Dec 12 j 07:35		4.28493 AU
retrograde	-1728 Apr 20 j 00:14		00.101.01	direct	-1722 Feb 11 j 06:20	2° I I27'33	
opposition	-1728 Jun 19 j 21:15		0°-18'-24	evening set	-1722 Jun 18 j 16:34	20° Ⅱ 39'26	
min. Earth dist.	-1728 Jun 20 j 06:05		4.08959 AU		1500 X 1 00:05 10	220 H 25120	000 (150
direct	-1728 Aug 18 j 18:32	7°× 7 20'47		conjunction	-1722 Jul 02 j 05:19		
evening set	-1728 Dec 21 j 07:09	26°×'21'40		minimum elong	-1722 Jul 02 j 05:17		0°27'01
	1505 X 02:04 40	200 705150	00 221 55	max. Earth dist.	-1722 Jul 02 j 10:42		6.33793 AU
conjunction	-1727 Jan 03 j 04:48		0°-33'-57	morning rise	-1722 Jul 15 j 15:24		
minimum elong	-1727 Jan 03 j 04:46		0°33'59		-1722 Jul 31 j 13:09	0°9	
max. Earth dist.	-1727 Jan 03 j 05:45		6.04093 AU	retrograde	-1722 Nov 14 j 05:10		1005120
	-1727 Jan 05 j 13:48	0°る		opposition	-1721 Jan 13 j 02:51		1°05'29
morning rise	-1727 Jan 16 j 04:46	2°る31'45		min. Earth dist.	-1721 Jan 13 j 07:32	8°\$55'43	4.37932 AU
retrograde	-1727 May 27 j 10:13			direct	-1721 Mar 15 j 19:12	3°553'51	
opposition	-1727 Jul 26 j 19:45		-1°-19'-58	evening set	-1721 Jul 21 j 07:18	45'22ف2°21	
min. Earth dist.	-1727 Jul 26 j 09:38		4.00595 AU				
direct	-1727 Sep 23 j 11:00			conjunction	-1721 Aug 03 j 11:14		1°00'06
	-1726 Jan 17 j 04:39	0° ≈		minimum elong	-1721 Aug 03 j 11:11		1°00'07
evening set	-1726 Jan 26 j 02:50	2°≈06'58		max. Earth dist.	-1721 Aug 02 j 14:19		6.40673 AU
				morning rise	-1721 Aug 16 j 12:09		
conjunction	-1726 Feb 08 j 07:30	5°≈16'43	-1°-7'-4		-1721 Aug 28 j 08:34	$0^{\circ}\Omega$	
minimum elong	-1726 Feb 08 j 07:28	5°≈16'42	1°07'06	retrograde	-1721 Dec 14 j 18:27		
max. Earth dist.	-1726 Feb 09 j 11:53	5° ≈ 33'45	5.98806 AU	opposition	-1720 Feb 13 j 00:55	9° Ω 29'29	1°42'10
morning rise	-1726 Feb 21 j 15:31	8° ≈ 28'14		min. Earth dist.	-1720 Feb 13 j 21:52	9° Ω 22'43	4.41953 AU
	-1726 Mar 21 j 20:48			direct	-1720 Apr 15 j 14:03	4° Ω 26'43	
retrograde	-1726 Jul 03 j 23:45	28° ≈ 56'53			-1720 Jul 17 j 03:56		
opposition	-1726 Sep 01 j 22:24		-1°-52'-5	evening set	-1720 Aug 20 j 15:57		
min. Earth dist.	-1726 Aug 31 j 19:39		3.99144 AU	max. Earth dist.	-1720 Aug 31 j 22:19	24° Ω 38′04	6.41426 AU
direct	-1726 Oct 29 j 20:44						
	-1725 Jan 26 j 00:09			conjunction	-1720 Sep 02 j 11:54		
evening set	-1725 Mar 04 j 05:13	8° ∺ 25'39		minimum elong	-1720 Sep 02 j 11:53		1°16'02
				morning rise	-1720 Sep 15 j 04:48		
conjunction	-1725 Mar 17 j 17:35		-1°-14'-43		-1720 Sep 25 j 14:01	0° m	
minimum elong	-1725 Mar 17 j 17:36		1°14'44	retrograde	-1719 Jan 13 j 15:41	14° Mp 44'00	
max. Earth dist.	-1725 Mar 19 j 16:19		6.01203 AU	opposition	-1719 Mar 15 j 08:59	9° m 52′13	1°50'53
morning rise	-1725 Mar 31 j 08:55	14° ∺ 51′09		min. Earth dist.	-1719 Mar 16 j 15:04	9° m 42'37	4.39515 AU
	-1725 Jun 12 j 18:40	0 ° $\mathbf{\Upsilon}$		direct	-1719 May 17 j 01:33	4° m 51'14	
retrograde	-1725 Aug 09 j 10:09	4° Ƴ 57'47		evening set	-1719 Sep 20 j 11:49	22° m 40'44	
opposition	-1725 Oct 07 j 23:52		-1°-40'-41	max. Earth dist.	-1719 Oct 01 j 05:33	25° Mp 03'47	6.35897 AU
min. Earth dist.	-1725 Oct 06 j 16:37	0° Υ 03'13	4.05180 AU				
	-1725 Oct 07 j 02:02			conjunction	-1719 Oct 03 j 02:40		1°10'54
direct	-1725 Dec 05 j 04:24	24°) ₹ 54'43		minimum elong	-1719 Oct 03 j 02:41		1°10'54
	-1724 Jan 31 j 17:05	0 ° $\mathbf{\Upsilon}$		morning rise	-1719 Oct 15 j 15:37		
evening set	-1724 Apr 09 j 08:48	14° Ƴ 05'01			-1719 Oct 23 j 11:53	0∘ ⊽	
				retrograde	-1718 Feb 14 j 21:47		
conjunction	-1724 Apr 23 j 02:51	17° Ƴ 15′29	0°-54'-10	opposition	-1718 Apr 16 j 20:55	10° £ 52′02	1°28'35
minimum elong	-1724 Apr 23 j 02:54	17° Y 15'31	0°54'10	min. Earth dist.	-1718 Apr 18 j 05:48		4.31201 AU
max. Earth dist.	-1724 Apr 25 j 02:56		6.10307 AU	direct	-1718 Jun 18 j 02:42	5° £ 53'33	
morning rise	-1724 May 06 j 22:02			evening set	-1718 Oct 21 j 15:24		
	-1724 Jun 20 j 01:59	0° 8		max. Earth dist.	-1718 Nov 01 j 12:35	26° ≏ 30'02	6.25467 AU
retrograde	-1724 Sep 11 j 19:36	9° 8 36'56					
min. Earth dist.	-1724 Nov 09 j 04:54	4° 8 41'48	4.16302 AU	conjunction	-1718 Nov 03 j 05:26	26° £ 53′21	0°45'08
opposition	-1724 Nov 10 j 06:27	4° 8 33'06	0°-53'-22	minimum elong	-1718 Nov 03 j 05:28	26° ≏ 53'23	0°45'06
	-1724 Dec 22 j 18:19			morning rise	-1718 Nov 15 j 19:02	29° ≏ 45'23	
direct	-1723 Jan 08 j 09:15	29° Ƴ 32'18			-1718 Nov 16 j 20:47	0° M	
	-1723 Jan 25 j 05:00	$_{0\circ}$ 8			-1717 Feb 03 j 13:12	15° ™	
	-1723 Apr 30 j 19:22	15° 8		retrograde	-1717 Mar 20 j 23:12	18°M03'32	
evening set	-1723 May 15 j 09:32	18° 8 13'22			-1717 May 06 j 07:15	15°RM	

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1717 in astronomical counting style is the year 1718 BCE in historical counting style. -1717 May 21 j 00:41 13° ML09'51 0°38'19 direct -1711 Jan 13 j 05:32 4°**8**21'37 opposition min. Earth dist. -1717 May 22 j 00:09 13°ML02'20 -1711 Apr 12 j 23:46 15°8 4 19254 AU -1717 Jul 21 j 02:52 8°**ጤ**14'06 -1711 May 20 j 06:10 22°**8**57'02 direct evening set -1717 Sep 28 j 03:10 15°ML -1717 Nov 22 j 23:32 26°M49'35 -1711 Jun 02 j 23:51 26°\(\delta\)01'09 0°-9'-23 evening set conjunction -1711 Jun 02 j 23:51 26°**8**01'09 minimum elong 0°09'23 -1711 Jun 02 j 16:57 25°**8**57'18 conjunction -1717 Dec 05 j 16:28 29° ML47'59 0°04'19 behind sun begin -1717 Dec 05 j 16:28 29°M47'59 -1711 Jun 03 j 06:46 26°**8**05'00 minimum elong 0°04'18 behind sun end -1711 Jun 04 j 03:35 26°**8**16'40 6.24649 AU behind sun begin -1717 Dec 05 j 08:36 29°ML43'23 max. Earth dist. -1711 Jun 16 j 16:17 29°**8**04'27 behind sun end -1717 Dec 06 j 00:21 29°M 52'35 morning rise max. Earth dist. -1717 Dec 04 j 18:09 29°M34'54 6.13093 AU -1711 Jun 20 j 20:43 Π $^{\circ}0$ -1711 Aug 28 j 11:59 13°**Д**07'35 -1717 Dec 06 j 12:59 0°**∡**¹ asc. node -1711 Oct 18 j 12:57 17°**Ⅲ**02'49 morning rise -1717 Dec 18 j 10:30 2°**х**⁴47'14 retrograde opposition desc. node -1716 Jan 12 j 07:57 8°**х** 27′00 -1711 Dec 17 j 04:08 12°**Ⅲ**02'55 0°17'22 retrograde -1716 Apr 25 j 04:11 22°**尽** 07'02 min. Earth dist. -1711 Dec 16 j 18:37 12°**Д**06'06 4.30448 AU opposition -1716 Jun 24 j 22:32 17°**х** 10′09 0°-27'-45 direct -1710 Feb 15 j 20:20 6°**Ⅱ**59'56 min. Earth dist. -1716 Jun 25 j 05:52 17°**尽** 07'46 4.07368 AU evening set -1710 Jun 23 j 06:07 25°**耳**06'48 direct -1716 Aug 23 j 15:41 12° ₹ 16'28 -1716 Dec 20 j 09:22 0°궁 conjunction -1710 Jul 06 j 17:32 28°**Ⅲ**03'48 0°32'14 evening set -1716 Dec 26 j 03:45 1°る21'50 minimum elong -1710 Jul 06 j 17:30 28°**Ⅲ**03'47 0°32'16 max. Earth dist. -1710 Jul 06 j 17:48 28°**耳**03'57 6.35449 AU conjunction -1715 Jan 08 i 02:15 4°**ප**27'07 0°-39'-36 -1710 Jul 15 i 13:34 0ಂತಾ minimum elong -1715 Jan 08 i 02:12 4°る27'06 0°39'40 morning rise -1710 Jul 20 i 02:29 0°959'25 max. Earth dist. -1715 Jan 08 i 05:59 4°る29'22 6.02791 AU retrograde -1710 Nov 18 j 08:59 18°5012'36 morning rise -1715 Jan 21 j 03:27 7°る33'59 opposition -1709 Jan 17 j 08:00 13°5016'32 1°11'48 -1715 Jun 01 j 15:14 27°る45'49 min. Earth dist. -1709 Jan 17 j 15:47 13°513'59 retrograde 4.39185 AU -1715 Jul 31 j 10:23 22°정49'34 3.99754 AU -1709 Mar 20 j 05:05 8°\$13'02 min. Earth dist. direct -1715 Aug 01 j 00:02 22°₹45'02 -1°-26'-44 -1709 Jul 25 j 14:37 26°501'37 evening set opposition -1715 Sep 28 j 10:38 17°**⋜**51'44 direct -1715 Dec 30 j 14:58 0°≈ -1709 Aug 07 j 17:29 28°\$52'38 1°03'20 conjunction -1714 Jan 31 j 05:44 -1709 Aug 07 j 17:27 28°552'37 1°03'22 evening set 7°≈17'49 minimum elong -1709 Aug 06 j 18:30 28°\$40'07 6.41411 AU max. Earth dist. -1714 Feb 13 j 11:30 10°≈28'12 -1°-9'-52 -1709 Aug 12 j 21:06 0°**Ω** conjunction -1714 Feb 13 j 11:27 10°≈28'10 1°09'54 -1709 Aug 20 j 16:59 minimum elong morning rise 1°**Ω**42'03 -1714 Feb 14 j 19:21 10°≈47'19 5.98495 AU -1709 Oct 30 j 15:03 15°**Ω** max. Earth dist. -1714 Feb 26 j 20:34 13°≈40'20 -1709 Dec 18 j 20:15 $18^{\circ}\Omega$ 35'37 morning rise retrograde -1714 Mar 04 j 11:01 15°≈ -1708 Feb 07 j 02:04 15°R**Ω** -1714 May 17 j 16:10 0°**米** opposition -1708 Feb 17 j 05:22 13°**Ω**42'32 1°45'02 retrograde -1714 Jul 09 j 05:04 4°**)** 09'31 min. Earth dist. -1708 Feb 18 j 03:46 $13^{\circ}\Omega$ 35'19 4.42141 AU -1714 Aug 31 j 07:43 30°R≈ direct -1708 Apr 19 j 19:31 8°**Ω**39'55 min. Earth dist. -1714 Sep 05 j 21:49 29°≈14'52 3.99429 AU -1708 Jun 28 j 02:04 15°**Ω** -1714 Sep 07 j 01:39 29°≈05'26 -1708 Aug 24 j 20:04 26°**Q**23'23 opposition -1°-53'-9 evening set -1714 Nov 04 j 00:22 24°≈10′20 max. Earth dist. -1708 Sep 04 j 21:55 $28^{\circ}\Omega 48'45$ direct -1713 Jan 04 j 07:58 0°**米** -1713 Mar 09 j 10:49 13° **∺** 36'58 -1708 Sep 06 j 14:57 29° Ω 11'16 1°16'33 evening set conjunction -1708 Sep 06 j 14:57 29° Ω 11'15 1°16'33 minimum elong -1713 Mar 23 i 00:17 16° ★ 49'06 -1°-13'-25 -1708 Sep 10 i 07:46 conjunction 0° m -1713 Mar 23 j 00:19 16° \(\frac{1}{4}\)9'07 1°13'25 minimum elong morning rise -1708 Sep 19 i 07:12 1° m 57'53 -1713 Mar 25 j 02:14 17° ¥ 18'38 6.02082 AU max. Earth dist. retrograde -1707 Jan 17 j 23:11 18° m 59'08 -1713 Apr 05 j 16:20 20° \(\text{\text{\text{02'28}}} opposition -1707 Mar 19 j 16:22 14° mp 07'27 1°49'40 morning rise -1713 May 20 j 16:27 $0^{\circ}\Upsilon$ min. Earth dist. -1707 Mar 21 j 00:50 13° mp 57'06 4.38532 AU -1713 Aug 14 j 09:10 10°**Υ**'02'48 direct -1707 May 21 j 09:25 9° mp 06'40 retrograde -1713 Oct 12 j 21:58 4°Υ57'38 -1°-35'-47 -1707 Sep 24 j 16:07 26° m 58'41 opposition evening set 5°**Υ**08'27 4.06582 AU -1707 Oct 05 j 08:43 29° m 21'37 6.34403 AU min. Earth dist. -1713 Oct 11 j 14:18 max. Earth dist. -1713 Dec 07 j 21:21 30°R € direct -1713 Dec 10 j 04:05 29°**米**59'28 conjunction -1707 Oct 07 j 06:46 29° Mp 47'21 1°08'32 -1713 Dec 12 j 10:55 $0^{\circ}\Upsilon$ minimum elong -1707 Oct 07 j 06:48 29° Mp 47'22 1°08'32 -1712 Apr 14 j 12:02 19°**Y**05'40 -1707 Oct 08 j 05:24 0∘**⊽** evening set morning rise -1707 Oct 19 j 19:34 2°**₽**35'18 -1712 Apr 28 j 06:14 22°**Y**15'27 0°-49'-30 -1706 Feb 19 j 09:38 20° **2**09'45 conjunction retrograde -1712 Apr 28 j 06:18 22°**Y**15'29 -1706 Apr 21 j 09:47 15°**⊆**17'43 minimum elong 0°49'30 opposition 1°23'15 max. Earth dist. $-1712 \text{ Apr } 30 \text{ j } 04:06 \quad 22^{\circ} \Upsilon 41'50$ 6.12111 AU min. Earth dist. -1706 Apr 22 j 17:36 15°**♀**07'35 4.29288 AU morning rise -1712 May 12 j 01:40 25°**Y**25'33 direct -1706 Jun 22 j 11:01 10°**2**19'33 -1712 Jun 01 j 12:00 0° 8 evening set -1706 Oct 25 j 23:49 28°**£**32'22 retrograde -1712 Sep 16 j 09:37 14°**8**26'18 -1706 Nov 01 j 09:17 0°M -1712 Nov 14 j 21:44 9°**8**22'47 0°-45'-5 max. Earth dist. -1706 Nov 05 j 23:11 1°ML03'02 6.23299 AU opposition

min. Earth dist.

-1712 Nov 13 j 21:26

9°**8**31'03 4.18318 AU

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 18

-	omena of Jupiter fro		•	, ·		, .	ige 18
	ical year style is used: Th	-					
conjunction	-1706 Nov 07 j 14:06	1°M25'23		max. Earth dist.	-1700 May 05 j 06:35		6.14073 AU
minimum elong	-1706 Nov 07 j 14:09	1°M25'24	0°40'12		-1700 May 15 j 12:16	0°8	
morning rise	-1706 Nov 20 j 04:11	4° ጤ 18'31		morning rise	-1700 May 17 j 04:45	0° 8 23'00	
	-1705 Jan 09 j 16:37	15° ™			-1700 Jul 30 j 01:51		
retrograde	-1705 Mar 25 j 22:36	22°M46'42		retrograde	-1700 Sep 21 j 01:07	19° 8 13'40	
opposition	-1705 May 25 j 21:29	17° M 52'40	0°29'44		-1700 Nov 13 j 10:19	15° ₹႘	
min. Earth dist.	-1705 May 26 j 20:10	17° M 45'23	4.16967 AU	opposition	-1700 Nov 19 j 12:37	14° ႘ 10'39	0°-36'-28
	-1705 Jun 18 j 21:17	15°RM₀		min. Earth dist.	-1700 Nov 18 j 14:34	14° 8 18'07	4.20333 AU
direct	-1705 Jul 25 j 19:33	12°M57'14		direct	-1699 Jan 18 j 01:38	9° 8 09'10	
	-1705 Aug 31 j 05:07	15° ™			-1699 Mar 22 j 22:34		
	-1705 Nov 20 j 12:43	0° ∡ 7		evening set	-1699 May 25 j 02:52		
desc. node	-1705 Nov 22 j 18:37	0° ∡ ³31'12		evening sec	-1699 Jun 04 j 15:43	0°Ⅱ	
evening set	-1705 Nov 27 j 14:55	1°×738'57			-1077 Juli 0+ j 15.45	υш	
evening set	-1703 NOV 27 J 14.33	1 × 303/		:	1600 I 07:10:40	00TI 42125	00 21 21
. ,.	1505 D 10:00 26	40 720127	00.21.2	conjunction	-1699 Jun 07 j 19:49	0° ∏ 42'25	0°-3'-21
conjunction	-1705 Dec 10 j 08:36	4° ∡ ³38'37	0°-2'-2	minimum elong	-1699 Jun 07 j 19:50	0° Ⅱ 42'26	0°03'20
minimum elong	-1705 Dec 10 j 08:35	4° ∡ ³38'36	0°02'04	behind sun begin	-1699 Jun 07 j 11:34	0° Ⅱ 37'50	
behind sun begin	-1705 Dec 10 j 00:33	4° ∡ ³33'53		behind sun end	-1699 Jun 08 j 04:06	0° Ⅱ 47'01	
behind sun end	-1705 Dec 10 j 16:38	4° ∡ ¹43'19		max. Earth dist.	-1699 Jun 08 j 19:15	0° Ⅱ 55′28	6.26555 AU
max. Earth dist.	-1705 Dec 09 j 13:00	4° ₰ ¹27'05	6.10902 AU	morning rise	-1699 Jun 21 j 11:32	3° Ⅱ 44'35	
morning rise	-1705 Dec 23 j 03:41	7° ∡ ³39'15		asc. node	-1699 Jul 08 j 09:16	7° Ⅲ 25'34	
retrograde	-1704 Apr 30 j 08:35	27° х 09′23		retrograde	-1699 Oct 22 j 20:43	21° Ⅲ 34'44	
opposition	-1704 Jun 30 j 02:14	22° ∡ 11'57	0°-37'-2	opposition	-1699 Dec 21 j 13:32	16° Ⅲ 35′24	0°25'49
min. Earth dist.	-1704 Jun 30 j 05:28	22° ∡ 10′54	4.05491 AU	min. Earth dist.	-1699 Dec 21 j 06:16		4.32105 AU
direct	-1704 Aug 28 j 12:49	17° ∡ 18'29		direct	-1698 Feb 20 j 10:03		
ancet	-1704 Dec 03 j 02:00	0°る		evening set	-1698 Jun 27 j 20:10		
avanina aat	-1704 Dec 31 j 03:38	6° る 29'14		evening set	-1698 Jun 29 j 17:22	0°95	
evening set	-1/04 Dec 31 J 03.38	0 02914			-1098 Juli 29 J 17.22	0 😊	
. ,.	1702 I 12:02.07	00-705125	00.451.2		1600 1 1 11:06 22	20521120	0027125
conjunction	-1703 Jan 13 j 03:07	9° る 35'35	0°-45'-3	conjunction	-1698 Jul 11 j 06:33	2°931'28	0°37'25
minimum elong	-1703 Jan 13 j 03:05	9° る 35'33	0°45'05	minimum elong	-1698 Jul 11 j 06:30	2° © 31'27	0°37'26
max. Earth dist.	-1703 Jan 13 j 11:51	9° る 40'48	6.01399 AU	max. Earth dist.	-1698 Jul 11 j 03:48	2° 5 29'58	6.36741 AU
morning rise	-1703 Jan 26 j 05:25	12° る 43'31		morning rise	-1698 Jul 24 j 14:04	5° 5 26'01	
	-1703 Apr 23 j 10:13	0° ≈		retrograde	-1698 Nov 22 j 14:54	22° 5 34'40	
retrograde	-1703 Jun 07 j 00:32	3° ≈ 01'34		opposition	-1697 Jan 21 j 15:02	17° © 39'11	1°17'55
	-1703 Jul 21 j 20:43	30°Ŗる		min. Earth dist.	-1697 Jan 22 j 01:12	17° © 35'51	4.40042 AU
opposition	-1703 Aug 06 j 06:58	28° පි 00'10	-1°-32'-53	direct	-1697 Mar 24 j 15:14		
min. Earth dist.	-1703 Aug 05 j 14:44	28° る 05'35	3.99007 AU		-1697 Jul 28 j 05:48	$0^{\circ}\Omega$	
direct	-1703 Oct 03 j 15:27	23° る 06'42		evening set	-1697 Jul 29 j 23:59	0° Ω 22'46	
	-1703 Dec 09 j 20:51	0° ≈		max. Earth dist.	-1697 Aug 10 j 21:55		6.41747 AU
evening set	-1702 Feb 05 j 11:44			max. Lartii dist.	10)/ / Mag 10 j 21:55	2 003000	0.41747710
evening set	-			aaniumatian	1607 Aug 12:01:21	3° Ω 13'09	1°06'21
	-1702 Feb 15 j 14:31	13 🌤		conjunction	-1697 Aug 12 j 01:31		
	1500 5 1 10 110 10	150 15111	10.101.0	minimum elong	-1697 Aug 12 j 01:29	3° Ω 13'07	1°06'23
conjunction	-1702 Feb 18 j 18:43	15°≈45'41	-1°-12'-8	morning rise	-1697 Aug 24 j 23:59	6° Ω 01'58	
minimum elong	-1702 Feb 18 j 18:42	15° ≈ 45'40	1°12'10	_	-1697 Oct 08 j 01:22	15° Ω	
max. Earth dist.	-1702 Feb 20 j 07:44	16° ≈ 07'52	5.98451 AU	retrograde	-1697 Dec 23 j 03:38	22° Ω 55'12	
morning rise	-1702 Mar 04 j 04:52	18° ≈ 58'17		opposition	-1696 Feb 21 j 13:07	18° Ω 02′27	1°47'29
	-1702 Apr 22 j 19:02	0° ℋ		min. Earth dist.	-1696 Feb 22 j 13:55	17° Ω 54'28	4.41968 AU
retrograde	-1702 Jul 14 j 11:27	9° ∺ 25'54			-1696 Mar 17 j 23:48	15°R ℳ	
min. Earth dist.	-1702 Sep 11 j 00:39	4°) 31′29	4.00100 AU	direct	-1696 Apr 24 j 04:49	12° Ω 59′59	
opposition	-1702 Sep 12 j 06:15	4°) €21'27	-1°-53'-16		-1696 May 31 j 13:28	15° Ω	
	-1702 Oct 22 j 00:53	30°R≈			-1696 Aug 25 j 17:44	o°mp	
direct	-1702 Nov 09 j 04:10	29° ≈ 25'58		evening set	-1696 Aug 29 j 03:09	0° Mp 44'15	
	-1702 Nov 27 j 09:06	0° ∀		max. Earth dist.	-1696 Sep 09 j 03:48	3° m)09'13	6.40345 AU
evening set	-1701 Mar 14 j 17:54	18°) € 50'11					
e vennig see	170117141 111 17.51	10 7(2011		conjunction	-1696 Sep 10 j 21:24	3° m/32'05	1°16'43
conjugation	1701 Mar 29 ; 09:05	220¥02105	-1°-11'-30	minimum elong			1°16'43
conjunction	-1701 Mar 28 j 08:05 -1701 Mar 28 j 08:07	22°\(\mathbf{H}\)02'05 22°\(\mathbf{H}\)02'07	1°11'31		-1696 Sep 10 j 21:24 -1696 Sep 23 j 12:47	3°Mp32'05	1 1043
minimum elong	-			morning rise		6° TQ 18'41	
max. Earth dist.	-1701 Mar 30 j 09:55	22°) €31'27	6.03348 AU	retrograde	-1695 Jan 22 j 08:44	23° Tp 23'32	1045
	-			opposition	-1695 Mar 24 j 03:37	18° m 31'58	1°47'48
morning rise	-1701 Apr 11 j 01:01	25°) 15'11			4 60 - 3		
-	-1701 Apr 11 j 01:01 -1701 May 01 j 18:14	0° Y ′		min. Earth dist.	-1695 Mar 25 j 12:02	18°Mp21'38	4.37410 AU
retrograde	-1701 Apr 11 j 01:01 -1701 May 01 j 18:14 -1701 Aug 19 j 06:21	0° Υ 15° Υ 07'28			-1695 May 25 j 18:11	18° Mp 21'38 13° Mp 31'34	4.37410 AU
-	-1701 Apr 11 j 01:01 -1701 May 01 j 18:14 -1701 Aug 19 j 06:21 -1701 Oct 17 j 20:03	0° Y ′	-1°-30'-8	min. Earth dist.	-	18°Mp21'38	4.37410 AU
retrograde	-1701 Apr 11 j 01:01 -1701 May 01 j 18:14 -1701 Aug 19 j 06:21	0° Υ 15° Υ 07'28	-1°-30'-8 4.08268 AU	min. Earth dist.	-1695 May 25 j 18:11	18° Mp 21'38 13° Mp 31'34	4.37410 AU
retrograde opposition	-1701 Apr 11 j 01:01 -1701 May 01 j 18:14 -1701 Aug 19 j 06:21 -1701 Oct 17 j 20:03	0° Υ 15° Υ 07'28 10° Υ 02'18		min. Earth dist. direct	-1695 May 25 j 18:11 -1695 Sep 22 j 11:47	18° Mp 21'38 13° Mp 31'34 0° <u>Ω</u>	4.37410 AU 6.32917 AU
retrograde opposition min. Earth dist.	-1701 Apr 11 j 01:01 -1701 May 01 j 18:14 -1701 Aug 19 j 06:21 -1701 Oct 17 j 20:03 -1701 Oct 16 j 12:22	0°Υ 15°Υ07'28 10°Υ02'18 10°Υ13'07		min. Earth dist. direct evening set	-1695 May 25 j 18:11 -1695 Sep 22 j 11:47 -1695 Sep 29 j 00:05	18° M 21'38 13° M 31'34 0° <u>a</u> 1° <u>a</u> 26'26	
retrograde opposition min. Earth dist. direct	-1701 Apr 11 j 01:01 -1701 May 01 j 18:14 -1701 Aug 19 j 06:21 -1701 Oct 17 j 20:03 -1701 Oct 16 j 12:22 -1701 Dec 15 j 05:10	0°Υ 15°Υ07'28 10°Υ02'18 10°Υ13'07 5°Υ03'38		min. Earth dist. direct evening set	-1695 May 25 j 18:11 -1695 Sep 22 j 11:47 -1695 Sep 29 j 00:05	18° M 21'38 13° M 31'34 0° <u>a</u> 1° <u>a</u> 26'26	
retrograde opposition min. Earth dist. direct evening set	-1701 Apr 11 j 01:01 -1701 May 01 j 18:14 -1701 Aug 19 j 06:21 -1701 Oct 17 j 20:03 -1701 Oct 16 j 12:22 -1701 Dec 15 j 05:10 -1700 Apr 19 j 15:03	0°Υ 15°Υ07'28 10°Υ02'18 10°Υ13'07 5°Υ03'38 24°Υ04'50		min. Earth dist. direct evening set max. Earth dist. conjunction	-1695 May 25 j 18:11 -1695 Sep 22 j 11:47 -1695 Sep 29 j 00:05 -1695 Oct 09 j 15:53 -1695 Oct 11 j 14:21	18° Mp 21'38 13° Mp 31'34 0° Ω 1° Ω 26'26 3° Ω 49'29	6.32917 AU
retrograde opposition min. Earth dist. direct	-1701 Apr 11 j 01:01 -1701 May 01 j 18:14 -1701 Aug 19 j 06:21 -1701 Oct 17 j 20:03 -1701 Oct 16 j 12:22 -1701 Dec 15 j 05:10	0°Y 15°Y07'28 10°Y02'18 10°Y13'07 5°Y03'38 24°Y04'50 27°Y13'52	4.08268 AU	min. Earth dist. direct evening set max. Earth dist.	-1695 May 25 j 18:11 -1695 Sep 22 j 11:47 -1695 Sep 29 j 00:05 -1695 Oct 09 j 15:53	18° M 21'38 13° M 31'34 0° <u>Ω</u> 1° <u>Ω</u> 26'26 3° <u>Ω</u> 49'29 4° <u>Ω</u> 15'34	6.32917 AU 1°05'42

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1694 in astronomical counting style is the year 1695 BCE in historical counting style. -1694 Feb 24 i 04:25 24° **2**45'41 opposition -1689 Oct 22 j 13:49 14° Υ 56'55 retrograde -1°-24'-3 opposition -1694 Apr 26 j 03:15 19°**2**53'32 1°17'09 -1689 Dec 20 j 03:11 9°Y57'48 direct -1694 Apr 27 j 11:07 19° **△**43'23 4.27522 AU evening set -1688 Apr 24 j 13:54 28° Υ 54'09 min. Earth dist. -1694 Jun 27 j 01:46 14°**♀**55'46 -1688 Apr 29 j 09:46 direct 0°8 -1694 Oct 16 j 05:21 0°M -1688 May 08 j 08:31 2°**8**02'26 evening set -1694 Oct 30 j 11:26 3°M12'53 conjunction 0°-39'-18 max. Earth dist. -1694 Nov 10 j 13:29 -1688 May 08 j 08:34 5°**M**45'42 6.21429 AU minimum elong 2°**8**02'28 0°39'18 -1688 May 10 j 02:40 2°**8**26'28 max. Earth dist. 6.15894 AU conjunction -1694 Nov 12 j 02:07 6°ML06′50 0°34'53 morning rise -1688 May 22 j 03:38 5°**8**10'42 minimum elong -1694 Nov 12 j 02:10 6°M06'51 0°34'51 -1688 Jul 07 j 08:35 15°**8** morning rise -1694 Nov 24 j 16:42 9°M00'59 retrograde -1688 Sep 25 j 10:59 23°852'14 -1694 Dec 21 j 13:01 -1688 Nov 23 j 23:51 18°**8**49'38 15°M opposition 0°-27'-57 -1688 Nov 23 j 03:10 18°**8**56'38 4.22074 AU retrograde -1693 Mar 30 j 22:05 27°M38'11 min. Earth dist. opposition -1693 May 30 j 21:23 22°M43'47 0°20'40 -1688 Dec 26 j 09:45 15°R₩ min. Earth dist. -1693 May 31 j 16:44 22°M37'34 4.15156 AU direct -1687 Jan 22 j 16:21 13°**8**47'49 direct -1693 Jul 30 j 13:08 17°ML48'48 -1687 Feb 19 j 08:10 15°8 desc. node -1693 Oct 02 j 08:30 23°M44'38 asc. node -1687 May 19 j 09:35 29°**8**56'50 -1693 Nov 03 j 08:34 -1687 May 19 j 15:26 $0^{\circ}\Pi$ evening set -1693 Dec 02 j 08:52 6° **₹** 35'00 evening set -1687 May 29 j 19:53 2°**I**13′56 max. Earth dist. -1693 Dec 14 j 11:41 9°**∡**¹26'29 6.09331 AU conjunction -1687 Jun 12 j 12:13 5°**Ⅱ**16′02 0°02'39 conjunction -1693 Dec 15 i 03:09 9°**х** 35′37 0°-8'-24 minimum elong -1687 Jun 12 j 12:12 5°**Ⅱ**16′02 0°02'42 minimum elong -1693 Dec 15 i 03:08 9°**∡**35'37 0°08'27 behind sun begin -1687 Jun 12 i 03:55 5°**Ⅱ**11'26 behind sun begin -1693 Dec 14 j 20:04 9°**∡**31'27 behind sun end -1687 Jun 12 j 20:30 5°**Ⅱ**20'37 behind sun end -1693 Dec 15 j 10:13 9°**х** 39'47 max. Earth dist. -1687 Jun 13 j 07:35 5°**Ⅱ**26'47 6.28093 AU -1693 Dec 27 j 23:08 12° ₹37'20 -1687 Jun 26 j 02:59 8°**Ⅱ**17'09 morning rise morning rise -1692 Mar 28 j 02:52 -1687 Oct 27 j 04:21 26° **Ⅲ**00'44 0°る retrograde -1692 May 05 j 14:48 2°る15'24 opposition -1687 Dec 25 j 20:51 21°**Ⅲ**01'58 0°33'54 retrograde -1692 Jun 13 j 07:20 30°R ✓ -1687 Dec 25 j 16:48 21°П03'19 4.33325 AU min. Earth dist. -1692 Jul 05 j 06:57 27° ₹ 17'24 0°-46'-9 -1686 Feb 24 j 21:56 15° **I**I 58'43 opposition direct -1692 Jul 05 j 07:28 27°**尽** 17'14 4.04318 AU 0ಂತಿ min. Earth dist. -1686 Jun 13 j 15:11 -1692 Sep 02 j 14:22 22°**尽**24'04 -1686 Jul 02 j 08:11 3°959'33 direct evening set -1692 Nov 13 j 06:56 0°**♂** -1691 Jan 05 j 03:40 11°る37'35 -1686 Jul 15 j 17:27 6°954'48 0°42'16 evening set conjunction -1686 Jul 15 j 17:24 minimum elong 6°954'47 0°42'17 -1691 Jan 18 j 04:11 14°₹44'38 0°-50'-9 -1686 Jul 15 j 10:28 conjunction max. Earth dist. 6°950'59 6.37545 AU -1691 Jan 18 j 04:08 14°정44'36 0°50'11 minimum elong morning rise -1686 Jul 28 j 23:49 9°**©**48'32 max. Earth dist. -1691 Jan 18 j 18:18 14°**궁**53'06 6.00735 AU retrograde -1686 Nov 26 j 19:55 26°554'19 morning rise -1691 Jan 31 j 07:29 17°₹53'19 opposition -1685 Jan 25 j 21:13 21°559'15 1°23'30 -1691 Mar 27 j 11:11 min. Earth dist. -1685 Jan 26 j 09:21 21°955'17 4.40421 AU retrograde -1691 Jun 12 j 07:30 8°≈14'20 direct -1685 Mar 28 j 23:20 16°955'53 -1691 Aug 11 j 12:08 3°≈12'25 -1°-38'-12 -1685 Jul 12 j 01:57 $0^{\circ}\Omega$ opposition min. Earth dist. -1691 Aug 10 j 17:13 3°≈18'44 3.98964 AU -1685 Aug 03 j 08:37 4°**Ω**42'40 evening set -1691 Sep 06 j 18:13 30°R ₹ max. Earth dist. -1685 Aug 15 j 03:58 7°**Ω**16'42 6.41677 AU -1691 Oct 08 j 17:50 28° ₹ 18'48 direct -1691 Nov 09 j 12:44 0°≈ conjunction -1685 Aug 16 j 09:08 7°Ω32'37 1°08'57 -1690 Jan 29 i 21:28 15°≈ minimum elong -1685 Aug 16 i 09:05 7°**Ω**32'36 1°08'59 -1690 Feb 10 j 15:34 17°≈46'22 evening set morning rise -1685 Aug 29 i 06:23 $10^{\circ}\Omega$ 21'01 -1685 Sep 20 i 04:17 15°Ω -1690 Feb 23 j 23:21 20°≈57'25 -1°-13'-47 retrograde -1685 Dec 27 j 10:49 $27^{\circ}\Omega$ 15'05 conjunction -1690 Feb 23 i 23:20 20°≈57'24 1°13'49 opposition -1684 Feb 25 j 21:21 22° Ω 22'38 1°49'18 minimum elong -1690 Feb 25 j 14:02 21°≈20'34 5.98985 AU min. Earth dist. -1684 Feb 26 j 23:30 $22^{\circ}\Omega$ 14'15 4.41476 AU max. Earth dist. -1690 Mar 09 j 10:36 24°≈10'11 direct -1684 Apr 28 j 13:22 17°**Ω**20'28 morning rise -1690 Apr 03 j 15:03 0°**∀** -1684 Aug 09 j 11:20 O° m retrograde -1690 Jul 19 j 11:16 14° **★** 34'03 evening set -1684 Sep 02 j 10:34 5° Mp 06'09 9°**¥**39'48 4.01162 AU min. Earth dist. -1690 Sep 15 j 23:53 max. Earth dist. -1684 Sep 13 j 08:05 7°**m** 29′50 6.39458 AU -1690 Sep 17 j 06:54 9°**升**29'15 -1°-52'-27 opposition -1690 Nov 14 j 05:30 4°**)** 33'19 -1684 Sep 15 j 03:57 7° m 54'01 1°16'25 direct conjunction -1689 Mar 19 j 20:59 23° ¥ 54'02 -1684 Sep 15 j 03:57 1°16'25 evening set minimum elong 7° m 54'01 -1684 Sep 27 j 18:54 10° m 40'45 morning rise -1689 Apr 02 j 12:05 27° **★**05'38 -1°-9'-6 -1683 Jan 26 j 21:26 27° Mp 49'51 conjunction retrograde minimum elong -1689 Apr 02 j 12:08 27° **★** 05'39 1°09'07 -1683 Mar 28 j 16:17 22° m 58'16 1°45'16 opposition max. Earth dist. -1689 Apr 04 j 15:01 27° **∺**35'31 6.04836 AU min. Earth dist. -1683 Mar 30 j 01:16 22° m 47'46 4.36190 AU -1689 Apr 14 j 22:05 $0^{\circ}\Upsilon$ direct -1683 May 30 j 05:31 17° m 58'12 morning rise -1689 Apr 16 j 05:24 0°**Υ**18'13 -1683 Sep 05 j 22:15 0∘**⊽** -1689 Aug 24 j 01:30 20°**Y**01'56 -1683 Oct 03 j 08:39 5°**£**55'47 retrograde evening set min. Earth dist. -1689 Oct 21 j 07:50 15°**Υ**'07'09 4.09999 AU max. Earth dist. -1683 Oct 14 j 02:33 8°**≏**20'29 6.31478 AU

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1683 in astronomical counting style is the year 1684 BCE in historical counting style. -1683 Oct 15 j 22:54 8°**-**45'27 1°02'25 morning rise -1677 Apr 21 j 09:15 5°**Y**18'45 conjunction -1683 Oct 15 j 22:56 -1677 Aug 28 j 18:29 24° Υ 55'05 minimum elong 8°**£**45′29 1°02'24 retrograde -1683 Oct 28 j 11:37 11°**£**34'36 -1677 Oct 26 j 01:01 20° Υ 00'30 4.11413 AU min. Earth dist. morning rise -1677 Oct 27 j 06:53 19°**Υ**′50'19 -1°-17'-27 -1682 Feb 28 j 21:20 29°**£**22'48 retrograde opposition 14°**Y**50'46 -1677 Dec 24 j 22:18 opposition -1682 Apr 30 j 21:18 24°**△**30'25 1°10'30 direct -1676 Apr 12 j 19:53 -1682 May 02 j 03:19 24°**£**20'52 min. Earth dist. 4.25950 AU 0°B -1682 Jul 01 j 15:36 19°**≙**33'07 -1676 Apr 29 j 13:00 direct evening set 3°**8**43'44 -1682 Sep 28 j 21:16 0°M -1682 Nov 03 j 23:40 7°M53'37 evening set conjunction -1676 May 13 j 07:40 6°**8**51'24 0°-33'-52 max. Earth dist. -1682 Nov 15 j 03:56 10°M28'18 6.19855 AU minimum elong -1676 May 13 j 07:43 6°**8**51'25 0°33'52 max. Earth dist. -1676 May 14 j 22:23 7°**8**13'25 6.17404 AU -1682 Nov 16 j 14:31 10°M 48'19 -1676 May 27 j 02:33 9°**8**58'53 conjunction 0°29'18 morning rise -1682 Nov 16 j 14:33 10°M 48'20 -1676 Jun 18 j 20:45 15°8 minimum elong 0°29'17 morning rise -1682 Nov 29 j 05:44 13°M43'24 retrograde -1682 Dec 04 j 19:29 15°M opposition -1676 Nov 28 j 11:49 23°**8**30'31 0°-19'-13 -1681 Feb 23 j 08:14 0°**∡**¹ min. Earth dist. -1676 Nov 27 j 18:05 23°**8**36'30 4.23520 AU retrograde -1681 Apr 04 j 22:40 2°**х** 28′26 direct -1675 Jan 27 j 09:16 18°**8**28'25 -1681 May 15 j 23:25 30°RML asc. node -1675 Mar 29 j 12:05 23°**8**49'10 opposition -1681 Jun 04 j 21:04 27°M 33'33 0°11'27 -1675 May 02 j 08:50 $0^{\circ}\Pi$ min. Earth dist. -1681 Jun 05 j 14:22 27°M27'59 4.13668 AU evening set -1675 Jun 03 j 14:08 6°**I**I51'31 direct -1681 Aug 04 j 09:19 22°M 38'52 desc. node -1681 Aug 12 i 06:49 22°M 44'55 conjunction -1675 Jun 17 i 05:52 9°**Ⅱ**52'50 0°08'36 -1681 Oct 14 i 23:03 0° ₹ minimum elong -1675 Jun 17 i 05:51 9°**I**52'50 0°08'38 evening set -1681 Dec 07 j 02:01 11° ₹28'22 behind sun begin -1675 Jun 16 j 22:41 9°**Ⅱ**48'53 behind sun end -1675 Jun 17 j 13:01 9°**Ⅱ**56'47 -1681 Dec 19 j 21:08 14° ₹29'52 0°-14'-41 max. Earth dist. -1675 Jun 17 j 22:19 10°**Ⅲ**01'57 conjunction 6.29370 AU -1681 Dec 19 j 21:07 14° ₹ 29'51 0°14'44 -1675 Jun 30 j 19:40 12°**Д**53'02 minimum elong morning rise -1681 Dec 19 j 17:36 14° ₹27'47 -1675 Oct 13 j 15:41 behind sun begin 000 -1681 Dec 20 j 00:38 14° ₹31'56 -1675 Oct 31 j 11:31 behind sun end retrograde 0°930'54 -1681 Dec 19 j 10:13 14° ₹23'25 -1675 Nov 18 j 06:02 30°R **Ⅱ** max. Earth dist. 6.08065 AU -1680 Jan 01 j 17:56 17° ₹32'30 -1675 Dec 30 j 05:31 25° **II**32'41 0°41'54 opposition morning rise -1680 Feb 28 j 16:48 0°る -1675 Dec 30 j 02:50 25°**Д**33'34 4.34358 AU min. Earth dist. -1680 May 10 j 19:14 -1674 Mar 01 j 08:57 20°**Ⅲ**29'23 7°**る**17'12 direct retrograde -1680 Jul 10 j 10:02 2°정18'42 0°-54'-52 -1674 May 26 j 17:22 opposition 0ಂತಾ -1680 Jul 10 j 07:47 2°정19'26 4.03400 AU -1674 Jul 06 j 21:48 min. Earth dist. evening set 8°9528'28 -1680 Jul 28 j 18:57 30°R 🗷 -1680 Sep 07 j 13:09 27°**尽** 25'30 -1674 Jul 20 j 05:51 11°\$22'56 0°46'58 direct conjunction -1680 Oct 17 j 13:24 0°궁 minimum elong -1674 Jul 20 j 05:48 11°522'55 0°47'01 evening set -1679 Jan 10 j 02:39 16°₹41'13 max. Earth dist. -1674 Jul 19 j 19:22 11°517'13 6.38263 AU morning rise -1674 Aug 02 j 11:00 14°515'53 conjunction -1679 Jan 23 j 03:54 19°₹48'52 0°-54'-50 -1674 Nov 02 j 02:24 $0^{\circ}\Omega$ -1679 Jan 23 j 03:51 19°₹48'50 0°54'53 -1674 Dec 01 j 04:11 1°**Ω**19'08 minimum elong retrograde -1679 Jan 23 j 20:28 19°중58'48 6.00222 AU -1674 Dec 30 j 03:29 30°Rூ max. Earth dist. -1679 Feb 05 j 08:21 22°る58'14 -1673 Jan 30 j 05:36 26°524'34 1°28'45 morning rise opposition -1679 Mar 07 j 19:58 -1673 Jan 30 j 20:15 26°5519'47 4.40808 AU min. Earth dist. -1679 Jun 17 j 10:40 13°≈21'44 retrograde direct -1673 Apr 02 j 10:51 21°521'22 opposition -1679 Aug 16 i 14:47 8°≈19'19 -1°-42'-45 -1673 Jun 23 i 20:41 $0^{\circ}\Omega$ min. Earth dist. -1679 Aug 15 i 17:21 8°≈26'30 3.98929 AU evening set -1673 Aug 07 j 18:41 9°**Ω**07'35 direct -1679 Oct 13 i 18:05 3°≈25'28 max. Earth dist. -1673 Aug 19 j 10:26 $11^{\circ}\Omega$ 39'47 6.41703 AU -1678 Jan 12 i 07:17 15°≈ -1678 Feb 15 j 18:01 22°≈53'07 conjunction -1673 Aug 20 j 18:04 11°Ω57'04 1°11'15 evening set -1673 Aug 20 j 18:02 11° Ω 57'03 1°11'16 minimum elong -1673 Sep 02 j 14:18 14°**Ω**45'02 -1678 Mar 01 j 03:01 26°≈04'28 -1°-14'-52 conjunction morning rise minimum elong -1678 Mar 01 j 03:00 26°≈04'27 1°14'53 -1673 Sep 03 j 17:54 15°**Ω** max. Earth dist. -1678 Mar 02 j 21:09 26°≈29'38 5.99429 AU -1673 Nov 28 j 21:30 -1678 Mar 14 j 15:04 29°≈17'23 morning rise retrograde -1673 Dec 31 j 19:14 1° m 39'39 -1678 Mar 17 j 15:13 0°**∀** -1672 Feb 02 j 20:29 30°R**Ω** -1678 Jul 24 j 12:31 19°**米** 37'56 -1672 Mar 01 j 07:20 $26^{\circ}\Omega 47'23$ $1^{\circ}50'36$ retrograde opposition -1678 Sep 20 j 23:14 14° ¥ 43'25 4.02035 AU -1672 Mar 02 j 10:02 26° **Ω** 38'49 min. Earth dist. min. Earth dist. 4.41188 AU -1678 Sep 22 j 05:49 14° **★** 33'00 -1°-50'-52 direct -1672 May 02 j 23:17 $21^{\circ}\Omega 45'29$ opposition -1672 Jul 22 j 02:55 direct -1678 Nov 19 j 05:47 9°**)** 36'41 0° M evening set -1677 Mar 24 j 23:24 28° ¥ 55'03 evening set -1672 Sep 06 j 18:53 9° m 31'37 -1677 Mar 29 j 14:53 $0^{\circ}\Upsilon$ max. Earth dist. -1672 Sep 17 j 16:55 11° m 55'49 6.38893 AU conjunction -1677 Apr 07 j 15:13 2°Υ06'26 -1°-6'-14 conjunction -1672 Sep 19 j 11:37 12° m 19'25 1°15'44 minimum elong -1677 Apr 07 j 15:16 2°**Υ**06'28 1°06'14 -1672 Sep 19 j 11:38 12° m 19'26 1°15'45 minimum elong max. Earth dist. -1677 Apr 09 j 17:28 2°**Y**35'48 -1672 Oct 02 j 01:49 15° Mp 06'07 6.06045 AU morning rise

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 21

•	nical year style is used: The		•				
,	-1672 Dec 23 j 04:48	-		retrograde	-1666 Jul 29 j 08:57		
retrograde	-1671 Jan 31 j 09:12	2° ≙ 18'16		min. Earth dist.	-1666 Sep 25 j 17:53		4.02668 AU
-	-1671 Mar 12 j 00:27	30° ₽, M)		opposition	-1666 Sep 27 j 01:30	19°) 29′12	-1°-48'-34
opposition	-1671 Apr 02 j 05:31	27° m 26'40	1°42'09	direct	-1666 Nov 24 j 01:20	14°) 32′27	
min. Earth dist.	-1671 Apr 03 j 14:18	27° Mp 16'15	4.35384 AU		-1665 Mar 13 j 06:41	0 ° Υ	
direct	-1671 Jun 03 j 17:42	22° m 27'00		evening set	-1665 Mar 29 j 23:38	3° Ƴ 49'37	
	-1671 Aug 18 j 03:57	0∘ ত					
evening set	-1671 Oct 07 j 17:03			conjunction	-1665 Apr 12 j 16:12	7° Y 00′56	
max. Earth dist.	-1671 Oct 18 j 10:29	12° ≏ 50'33	6.30490 AU	minimum elong	-1665 Apr 12 j 16:16		1°02'58
				max. Earth dist.	-1665 Apr 14 j 17:02	7° Y 29′25	6.06979 AU
conjunction	-1671 Oct 20 j 06:58		0°58'50	morning rise	-1665 Apr 26 j 10:45		
minimum elong	-1671 Oct 20 j 07:00		0°58'49	retrograde	-1665 Sep 02 j 11:10		
morning rise	-1671 Nov 01 j 19:51			opposition	-1665 Oct 31 j 22:10		-1°-10'-29
1	-1670 Jan 12 j 07:30	0°M		min. Earth dist.	-1665 Oct 30 j 18:16		4.12533 AU
retrograde	-1670 Mar 05 j 14:01	3°M58'41		direct	-1665 Dec 29 j 17:24		
opposition	-1670 Apr 28 j 12:14 -1670 May 05 j 14:48		1°03'30	evening set	-1664 Mar 26 j 01:43 -1664 May 04 j 10:46	0° と 8° と 29'21	
min. Earth dist.	-1670 May 05 j 14:48		4.24823 AU	evening set	-1004 May 04 J 10.40	o O 2921	
direct	-1670 Jul 06 j 06:26		4.24623 AU	conjunction	-1664 May 18 j 05:37	11° × 36'31	0°-28'-17
direct	-1670 Sep 08 j 14:44	0°M		minimum elong	-1664 May 18 j 05:39		0°28'17
evening set	-1670 Nov 08 j 10:07			max. Earth dist.	-1664 May 19 j 19:11		6.18649 AU
e venning see	-1670 Nov 19 i 03:37			morning rise	-1664 Jun 01 j 00:10		0.10019110
max. Earth dist.	-1670 Nov 19 j 18:23		6.18699 AU	morning rise	-1664 Jun 02 j 05:48		
					-1664 Aug 20 j 00:52	0°II	
conjunction	-1670 Nov 21 j 01:26	15°M26'34	0°23'39	retrograde	-1664 Oct 04 j 10:21	3° Ⅱ 10′08	
minimum elong	-1670 Nov 21 j 01:27	15°M26'35	0°23'38		-1664 Nov 18 j 20:14	30° ₹ 8	
morning rise	-1670 Dec 03 j 17:00	18°ML22'20		opposition	-1664 Dec 02 j 22:57	28° 8 08'31	0°-10'-30
	-1669 Jan 27 j 16:38	0° ∡ ¹		min. Earth dist.	-1664 Dec 02 j 06:01	28° 8 14'14	4.24779 AU
retrograde	-1669 Apr 09 j 19:37	7° ∡ 13'40		direct	-1663 Jan 31 j 22:49	23° 8 06'14	
opposition	-1669 Jun 09 j 18:18	2° ∡ 18'21	0°02'21	asc. node	-1663 Feb 06 j 23:16	23° 8 09'43	
min. Earth dist.	-1669 Jun 10 j 09:37	2° ҂ 13'25	4.12566 AU		-1663 Apr 12 j 15:44	$\Pi^{\circ}0$	
desc. node	-1669 Jun 23 j 17:15	0° ∡ ³32'45		evening set	-1663 Jun 08 j 07:39	11° Ⅱ 26'44	
	-1669 Jun 28 j 09:10						
direct	-1669 Aug 09 j 02:51			conjunction	-1663 Jun 21 j 22:26		0°14'26
	-1669 Sep 19 j 00:57	0° ∡ ¹		minimum elong	-1663 Jun 21 j 22:25		0°14'27
evening set	-1669 Dec 11 j 17:00	16° ⊀ 15'35		behind sun begin	-1663 Jun 21 j 18:59		
	1660 D 24:12.24	100 315140	00 201 41	behind sun end	-1663 Jun 22 j 01:51		6 20 5 5 5 1 XX
conjunction	-1669 Dec 24 j 12:34			max. Earth dist.	-1663 Jun 22 j 10:38		6.30555 AU
minimum elong	-1669 Dec 24 j 12:32 -1669 Dec 24 j 03:25	19° х 17'42 19° х 12'18	0°20'44	morning rise	-1663 Jul 05 j 11:22 -1663 Sep 07 j 12:34	17° Ⅱ 26′29 0° ©	
max. Earth dist. morning rise	-1668 Jan 06 j 10:21	22° × 1218	6.07101 AU	retrograde	-1663 Nov 04 j 20:08	୯ ୬ 4° ୭ 58'59	
morning rise	-1668 Feb 09 j 03:00	22 メ ・21 10		opposition	-1662 Jan 03 j 14:10	0°901'15	0°49'35
retrograde	-1668 May 15 j 18:58			opposition	-1662 Jan 03 j 17:57	0 3 01 13	0 49 33
opposition	-1668 Jul 15 j 09:20	7°る12'16	-1°-2'-56	min. Earth dist.	-1662 Jan 03 j 14:20		4.35377 AU
min. Earth dist.	-1668 Jul 15 j 04:26	7° ට 13'53	4.02670 AU	direct	-1662 Mar 05 j 22:31	24° I 57'52	505,, 110
direct	-1668 Sep 12 j 08:50	2° ට 19'00			-1662 May 05 j 07:52	0ಂತಾ	
evening set	-1667 Jan 14 j 22:22			evening set		12°954'48	
-	,			-	J		
conjunction	-1667 Jan 28 j 00:44	24° පි 44'51	0°-58'-59	conjunction	-1662 Jul 24 j 17:23	15°5548'29	0°51'22
minimum elong	-1667 Jan 28 j 00:41	24° る 44'49	0°59'02	minimum elong	-1662 Jul 24 j 17:20	15°5548'28	0°51'24
max. Earth dist.	-1667 Jan 28 j 21:36		5.99792 AU	max. Earth dist.	-1662 Jul 24 j 05:01	15° © 41'45	6.39025 AU
morning rise	-1667 Feb 10 j 06:02			morning rise	-1662 Aug 06 j 21:08	18° © 40'35	
	-1667 Feb 19 j 01:42	0° ≈			-1662 Oct 03 j 09:20	$0^{\circ}\Omega$	
	-1667 May 06 j 14:35	15° ≈		retrograde	-1662 Dec 05 j 09:02	5° Ω 41'02	
retrograde	-1667 Jun 22 j 12:10	18° ≈ 20'24		opposition	-1661 Feb 03 j 13:07	0° Ω 46'48	1°33'27
.	-1667 Aug 08 j 14:29	15°R≈	10.46.22	min. Earth dist.	-1661 Feb 04 j 04:37	0° Ω 41'45	4.41268 AU
opposition	-1667 Aug 21 j 13:50	13°≈17'34	-1°-46'-23	r.	-1661 Feb 09 j 13:46	30°R©	
min. Earth dist.	-1667 Aug 20 j 16:00	13°≈24'54	3.98865 AU	direct	-1661 Apr 06 j 19:42		
direct	-1667 Oct 18 j 16:05	8°≈23'28		avaning sat	-1661 Jun 01 j 15:12	0° Ω 13° Ω 28'52	
evening set	-1667 Dec 23 j 08:04 -1666 Feb 20 j 17:26	15° ≈ 27° ≈ 51'32		evening set	-1661 Aug 12 j 03:27 -1661 Aug 19 j 03:08		
evening set	-1666 Mar 01 j 17:25	2/°≈51′32 0° ∺		max. Earth dist.	-1661 Aug 23 j 16:08		6.41793 AU
	-1000 Iviai 01 J 17.23	υ Λ		max. Earth tist.	-1001 Aug 23 J 10.08	15 663731	0.41/33 AU
conjunction	-1666 Mar 06 j 03:23	1° ₩ 03'11	-1°-15'-23	conjunction	-1661 Aug 25 j 01:39	16° Ω 17'50	1°13'07
minimum elong	-1666 Mar 06 j 03:22	1° X 03'11	1°15'25	minimum elong	-1661 Aug 25 j 01:37	16° Ω 17'49	1°13'08
max. Earth dist.	-1666 Mar 07 j 22:22	1° ∺ 28'48	5.99718 AU	morning rise	-1661 Sep 06 j 20:49	19° Ω 05'20	
morning rise	-1666 Mar 19 j 16:35	4°) 16′26		<i>3</i>	-1661 Oct 31 j 21:44	0°m)	
<i>5</i>					J	~	

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1660 in astronomical counting style is the year 1661 BCE in historical counting style. -1660 Jan 05 i 03:29 6° Mp 00'22 -1655 Sep 24 j 17:03 15°R≈ retrograde opposition 1°51'15 -1660 Mar 05 j 16:21 1° m 08'19 -1655 Oct 23 j 17:04 13°≈35'10 direct min. Earth dist. -1660 Mar 06 j 21:01 0° m 59'08 4.40877 AU -1655 Nov 21 j 16:57 15°≈ -1660 Mar 14 j 15:35 30°R**Ω** -1654 Feb 12 j 21:07 0°**∀** -1660 May 07 j 10:05 direct 26°**Ω**06'41 -1654 Feb 25 j 22:40 3°**)**€03'49 evening set -1660 Jun 29 j 09:39 0° m -1654 Mar 11 j 09:43 evening set -1660 Sep 11 j 01:30 13° m 53'16 conjunction 6°**升**15'45 -1°-15'-21 max. Earth dist. -1654 Mar 11 j 09:43 -1660 Sep 21 j 21:01 16° Mp 16'25 6.38166 AU minimum elong 6°**¥**15'45 1°15'23 -1654 Mar 13 j 06:51 max. Earth dist. 6°**)** 42'37 6.00188 AU conjunction -1660 Sep 23 j 17:35 16° Mp 41'05 1°14'37 morning rise -1654 Mar 24 j 23:49 9°**¥**29'11 minimum elong -1660 Sep 23 j 17:36 16° Mp 41'06 1°14'37 retrograde -1654 Aug 03 j 10:47 29° **★** 42'53 -1660 Oct 06 j 07:23 19° m 27'54 -1654 Sep 30 j 18:02 24° ¥48'30 4.03684 AU morning rise min. Earth dist. -1654 Oct 02 j 01:31 -1660 Nov 27 j 06:17 0∘**⊽** opposition 24°**)**€37'45 -1°-45'-21 retrograde -1659 Feb 04 j 20:12 6°**£**44'01 direct -1654 Nov 29 j 03:45 19°**)** 40'34 opposition -1659 Apr 06 j 18:02 1°**≙**52'20 1°38'29 -1653 Feb 22 j 19:17 $0^{\circ}\Upsilon$ min. Earth dist. -1659 Apr 08 j 02:30 1°**2**42'00 4.34270 AU evening set -1653 Apr 04 j 04:03 8°Y54'47 -1659 Apr 21 j 20:17 30°R M direct -1659 Jun 08 j 03:59 26° m 53'00 conjunction -1653 Apr 17 j 21:22 12°**Υ**05'45 -1659 Jul 24 j 20:09 0∘**⊽** minimum elong -1653 Apr 17 j 21:25 12° Υ 05'47 0°59'10 evening set -1659 Oct 12 j 00:42 14° **2**54'05 max. Earth dist. $-1653 \text{ Apr } 19 \text{ j } 23:35 \quad 12^{\circ} \Upsilon 34'55$ 6.08484 AU max. Earth dist. -1659 Oct 22 j 20:10 17°**2**20'30 6.29080 AU morning rise -1653 May 01 j 16:12 15°**Υ**17'18 -1653 Jul 13 i 13:58 0°8 conjunction -1659 Oct 24 i 14:40 17° **2**44'35 0°54'53 retrograde -1653 Sep 07 i 04:28 4°838'26 minimum elong -1659 Oct 24 i 14:42 17°**£**44'36 0°54'53 -1653 Nov 02 i 11:56 30°R**Y** morning rise -1659 Nov 06 i 03:31 20°**2**34'48 opposition -1653 Nov 05 j 15:51 29°**Y**34'10 -1°-2'-53 -1659 Dec 20 j 15:25 min. Earth dist. -1653 Nov 04 j 12:03 29°**Υ**43'38 4.14376 AU o°M. -1658 Mar 10 j 07:42 8°MJ35'12 -1652 Jan 03 j 13:49 24° Υ 33'53 retrograde direct -1658 May 10 j 08:32 3°M42'16 0°56'03 -1652 Mar 04 j 07:21 0°8 opposition -1658 May 11 j 12:36 -1652 May 09 j 10:11 13°**8**19'14 min. Earth dist. 3°M33'19 4.23187 AU evening set -1658 Jun 12 j 06:50 30°R Ω -1652 May 16 j 21:19 15°**8** -1658 Jul 10 j 21:11 28°**♀**45'42 direct -1658 Aug 08 j 06:52 0°ML -1652 May 23 j 04:34 16°\begin{align*} 25'22 0°-22'-30 \end{align*} conjunction -1658 Nov 03 j 07:34 15°M -1652 May 23 j 04:35 16°\begin{align*} 25'23 0°22'28 \end{align*} minimum elong -1652 May 24 j 14:22 16°**8**44'26 6.20683 AU -1658 Nov 12 j 21:59 17° ML11'52 evening set max. Earth dist. -1652 Jun 05 j 22:43 19°**8**31'05 -1658 Nov 24 j 07:19 19°M50'29 max. Earth dist. 6.16975 AU morning rise -1652 Jul 26 j 07:05 0°**Ⅱ** -1658 Nov 25 j 13:35 20°M 08'05 0°17'47 -1652 Oct 08 j 20:20 conjunction retrograde 7°**Ⅱ**48'04 minimum elong -1658 Nov 25 j 13:36 20°ML08'06 0°17'45 opposition -1652 Dec 07 j 10:05 2°**II**46'52 0°-1'-46 morning rise -1658 Dec 08 j 06:01 23°ML04'55 min. Earth dist. -1652 Dec 06 j 19:40 2°**Д**51'44 4.26811 AU -1657 Jan 08 j 04:42 0°**尽** asc. node -1652 Dec 18 j 15:32 1°**Ⅱ**17'41 retrograde -1657 Apr 14 j 19:36 12°**尽** 04'57 -1652 Dec 29 j 10:01 30°R8 -1657 May 04 j 04:36 11° ₹29'54 -1651 Feb 05 j 16:05 27°844'17 desc. node direct -1657 Jun 14 j 17:45 7°**∡**109'11 0°-6'-59 -1651 Mar 16 j 09:20 opposition min. Earth dist. -1657 Jun 15 j 06:10 7°**х** 05'10 4.10880 AU -1651 Jun 12 j 23:41 15°**Ⅲ**59'21 evening set -1657 Aug 13 j 21:16 2° ₹ 14'59 direct evening set -1657 Dec 16 j 11:03 21° x 11'10 conjunction -1651 Jun 26 j 13:38 18°Д58'38 0°20'05 minimum elong -1651 Jun 26 j 13:36 18°Д58'37 0°20'06 conjunction -1657 Dec 29 i 07:37 24° ₹ 14'21 0°-26'-45 max. Earth dist. -1651 Jun 26 j 23:47 19°**I**I04'13 6.32431 AU minimum elong -1657 Dec 29 i 07:35 24° ₹ 14'20 0°26'47 morning rise -1651 Jul 10 j 01:10 21°**Д**56'36 max. Earth dist. -1657 Dec 29 j 03:21 24° ₹ 11'49 -1651 Aug 17 j 17:01 6.05617 AU 000 -1656 Jan 11 j 06:14 27° ₹ 18'52 -1651 Nov 08 j 23:41 9°921'35 morning rise retrograde -1656 Jan 22 j 17:22 0°る -1650 Jan 07 j 20:22 4°9524'21 0°56'45 opposition -1656 May 21 j 01:39 17°る16'35 min. Earth dist. -1650 Jan 07 j 22:09 4°523'46 4.36960 AU retrograde opposition -1656 Jul 20 j 12:59 12°정17'01 -1°-10'-52 -1650 Feb 17 j 20:14 30°R **Ⅱ** min. Earth dist. -1656 Jul 20 j 06:23 12°정19'12 4.01544 AU direct -1650 Mar 10 j 08:21 29°**Ⅲ**20'55 direct -1656 Sep 17 j 08:44 7°**る**23'48 -1650 Mar 31 j 03:04 0ംഉ evening set -1655 Jan 19 j 23:25 26°**⋜**44'46 evening set -1650 Jul 15 j 19:45 17°513'52 max. Earth dist. -1650 Jul 28 j 08:04 19°557'09 6.40167 AU -1655 Feb 02 j 02:42 29°**궁**53'47 -1°-2'-52 conjunction -1655 Feb 02 j 02:40 29°**궁**53'46 1°02'54 -1650 Jul 29 j 01:16 20°506'32 0°55'19 minimum elong conjunction -1650 Jul 29 j 01:13 20°506'30 -1655 Feb 02 j 13:03 0°≈ minimum elong 0°55'21 max. Earth dist. -1655 Feb 03 j 02:11 0°≈07'53 5.99113 AU morning rise -1650 Aug 11 j 03:51 22°557'38 morning rise -1655 Feb 15 j 09:18 3°≈04'34 -1650 Sep 14 j 00:12 0 $^{\circ}\Omega$ -1655 Apr 10 j 10:58 15°≈ retrograde -1650 Dec 09 j 12:49 9°**£**54'33 retrograde -1655 Jun 27 j 16:49 23°≈32'42 opposition -1649 Feb 07 j 17:41 5°**Ω**00'40 1°37'26 -1655 Aug 26 j 17:30 18°≈29'30 -1°-49'-23 min. Earth dist. -1649 Feb 08 j 12:34 4° **Ω**54'33 4.41903 AU opposition min. Earth dist. -1655 Aug 25 j 16:45 18°≈37'50 3.98752 AU -1649 Apr 06 j 01:19 30°Rூ

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 23

Attention, astronomical year style is used: The year -1649 in astronomical counting style is the year 1650 BCE in historical counting style.

direct -1649 Apr 11 j 04:29 29°€57'37 max. Earth dist. -1643 Feb 08 j 12:30 5°≈26'22 5.98505.

		-	iii astronomicai cot		1650 BCE in historical c		
direct	-1649 Apr 11 j 04:29	29° © 57'37		max. Earth dist.	-1643 Feb 08 j 12:30	5° ≈ 26'22	5.98505 AU
	-1649 Apr 16 j 07:34	$0 { m ^o}\Omega$		morning rise	-1643 Feb 20 j 15:50	8° ≈ 20'52	
	-1649 Aug 03 j 19:14	15° Ω			-1643 Mar 21 j 09:42	15° ≈	
evening set	-1649 Aug 16 j 08:02	17° Ω 41'13		retrograde	-1643 Jul 03 j 01:06	28° ≈ 50'43	
max. Earth dist.	-1649 Aug 27 j 17:27	20° Ω 10′08	6.41843 AU	opposition	-1643 Aug 31 j 23:37	23° ≈ 47'01	-1°-51'-29
man. Darun dibu	10.51148 27 17.27	20 0010 00	0.110.0110	min. Earth dist.	-1643 Aug 30 j 21:15	23°≈55'56	3.98868 AU
	1640 A 20: 05:10	209 020144	1014121				3.98808 AU
conjunction	-1649 Aug 29 j 05:19	20° Ω 29'44	1°14'31	direct	-1643 Oct 28 j 23:13	18°≈52'21	
minimum elong	-1649 Aug 29 j 05:17	20° Ω 29'43	1°14'33		-1642 Jan 25 j 11:51	0° ∀	
morning rise	-1649 Sep 10 j 23:26	23° Ω 16′49		evening set	-1642 Mar 03 j 06:00	8° ∺ 20′19	
	-1649 Oct 13 j 02:01	0° m y					
retrograde	-1648 Jan 09 j 06:40	10° Mp 12'47		conjunction	-1642 Mar 16 j 18:10	11°) 32′22	-1°-14'-41
opposition	-1648 Mar 09 j 22:07	5° m 20'50	1°51'17	minimum elong	-1642 Mar 16 j 18:11	11°) 32′23	1°14'43
min. Earth dist.	-1648 Mar 11 j 03:32	5° m) 11'25	4.40352 AU	max. Earth dist.	-1642 Mar 18 j 19:06		6.00988 AU
direct	-1648 May 11 j 15:03	0° m) 19'22		morning rise	-1642 Mar 30 j 09:09	14°) (45'48	0.00000110
	, ,			morning rise		14)(4346 0° Υ	
evening set	-1648 Sep 15 j 05:07	18° Mp 07'20			-1642 Jun 12 j 07:07		
max. Earth dist.	-1648 Sep 25 j 23:06	20°m/30'02	6.37092 AU	retrograde	-1642 Aug 08 j 12:18	4° Y ′53′30	
					-1642 Oct 05 j 16:00	30°Ŗ ℋ	
conjunction	-1648 Sep 27 j 20:39	20° m 55'20	1°13'08	min. Earth dist.	-1642 Oct 05 j 18:07	29° ¥ 59'17	4.05058 AU
minimum elong	-1648 Sep 27 j 20:40	20° m 55'20	1°13'08	opposition	-1642 Oct 07 j 02:24	29°) 48′16	-1°-41'-14
morning rise	-1648 Oct 10 j 10:03	23° m/42'26		direct	-1642 Dec 04 j 05:48	24° ¥ 50'40	
	-1648 Nov 08 j 20:54	0∘ ⊽			-1641 Jan 31 j 04:49	0°Υ	
retrograde	-1647 Feb 09 j 06:50	0 — 11° ≏ 03'51		avanina aat	-1641 Apr 09 j 09:20	14° Υ ′00'38	
•	J		100.4100	evening set	-1041 Apr 09 J 09.20	14 1 00 38	
opposition	-1647 Apr 11 j 04:30	6° ≏ 12'07	1°34'23			••	
min. Earth dist.	-1647 Apr 12 j 14:21	6° ഫ 01'22	4.32692 AU	conjunction	-1641 Apr 23 j 02:56	17° Y 10′58	0°-54'-52
direct	-1647 Jun 12 j 13:08	1° ≏ 13'05		minimum elong	-1641 Apr 23 j 03:00	17° Ƴ 10'59	0°54'52
evening set	-1647 Oct 16 j 06:46	19° ≙ 18'13		max. Earth dist.	-1641 Apr 25 j 02:56	17° Ƴ 38'42	6.10265 AU
max. Earth dist.	-1647 Oct 27 j 01:26	21° ≏ 44'53	6.27118 AU	morning rise	-1641 May 06 j 22:09	20° Y 21'49	
	J			· ·	-1641 Jun 20 j 11:02	0° ႘	
conjunction	-1647 Oct 28 j 20:47	22° ჲ 09'33	0°50'43	retrograde	-1641 Sep 11 j 20:59	9° 8 33'07	
·	v			Č		4° 8 38'05	4 16244 ATT
minimum elong	-1647 Oct 28 j 20:50	22° ⊆ 09'35	0°50'43	min. Earth dist.	-1641 Nov 09 j 07:04	_	4.16344 AU
morning rise	-1647 Nov 10 j 10:06	25° ♀ 00'45		opposition	-1641 Nov 10 j 09:21	4° 8 29'08	0°-54'-48
	-1647 Dec 02 j 22:45	0° M			-1641 Dec 21 j 18:03	30° ŖƳ	
retrograde	-1646 Mar 15 j 01:09	13°M10'18		direct	-1640 Jan 08 j 12:02	29° Y 28'26	
opposition	-1646 May 15 j 02:04	8° ጤ 17'03	0°48'22		-1640 Jan 26 j 10:19	$6^{\circ}B$	
min. Earth dist.	-1646 May 16 j 04:06	8°M08'44	4.20966 AU		-1640 Apr 30 j 04:10	15° 8	
direct	-1646 Jul 15 j 09:13	3°M20'48		evening set	-1640 May 14 j 09:20	18° 8 08'29	
direct		15°M		evening set	1040 Way 14 J 07.20	10 0002)	
	-1646 Oct 17 j 14:50	13 116					
	164637 17:10.06	210M 52101			164034 20:02.22	2101 110100	00 161 20
evening set	-1646 Nov 17 j 10:06	21°M53'01		conjunction	-1640 May 28 j 03:33		0°-16'-30
max. Earth dist.	-1646 Nov 17 j 10:06 -1646 Nov 29 j 00:05	21°M53'01 24°M35'04	6.14702 AU	conjunction minimum elong	-1640 May 28 j 03:34	21° 8 13'40	0°16'30
•	3		6.14702 AU	3	, ,	21° 8 13'40	0°16'30
•	3		6.14702 AU 0°11'49	minimum elong	-1640 May 28 j 03:34	21° 8 13'40 21° 8 31'36	0°16'30
max. Earth dist.	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26	24°M35'04		minimum elong max. Earth dist.	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52	21°813'40 21°831'36 24°818'11	0°16'30
max. Earth dist. conjunction minimum elong	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27	24°M35'04 24°M50'28 24°M50'29	0°11'49	minimum elong max. Earth dist. morning rise	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11	21°813'40 21°831'36 24°818'11 0°II	0°16'30
max. Earth dist. conjunction minimum elong behind sun begin	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45	24°M.35'04 24°M.50'28 24°M.50'29 24°M.47'10	0°11'49	minimum elong max. Earth dist. morning rise retrograde	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58	21°813'40 21°831'36 24°818'11 0°П 12°П26'01	0°16'30
max. Earth dist. conjunction minimum elong behind sun begin behind sun end	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09	24°M.35'04 24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48	0°11'49	minimum elong max. Earth dist. morning rise retrograde asc. node	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32	21° 8 13'40 21° 8 31'36 24° 8 18'11 0°П 12°П26'01 12°П3'37	0°16'30 6.22690 AU
max. Earth dist. conjunction minimum elong behind sun begin	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33	24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37	0°11'49	minimum elong max. Earth dist. morning rise retrograde asc. node opposition	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28	21°831'36 21°831'36 24°818'11 0°II 12°II26'01 12°II03'37 7°II25'26	0°16'30 6.22690 AU 0°07'02
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16	24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0° 🗷	0°11'49	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist.	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07	21° 813'40 21° 831'36 24° 818'11 0° Π 12° Π26'01 12° Π03'37 7° Π25'26 7° Π29'35	0°16'30 6.22690 AU
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15	24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37	0°11'49	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03	21° \(\) 13'40 21° \(\) 31'36 24° \(\) 18'11 0° \(\) 1 12° \(\) 126'01 12° \(\) 103'37 7° \(\) 125'26 7° \(\) 129'35 2° \(\) 122'44	0°16'30 6.22690 AU 0°07'02
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16	24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0° 🗷	0°11'49	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist.	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07	21° 813'40 21° 831'36 24° 818'11 0° Π 12° Π26'01 12° Π03'37 7° Π25'26 7° Π29'35	0°16'30 6.22690 AU 0°07'02
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15	24° \$\m\35'04\\\\\24° \$\m\50'28\\\\\24° \$\m\50'29\\\\\24° \$\m\47'10\\\\\24° \$\m\48'37\\\\0° \$\n\7\\\\\15° \$\n\7\\\01'47\\\\	0°11'49	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03	21° \(\) 13'40 21° \(\) 31'36 24° \(\) 18'11 0° \(\) 1 12° \(\) 126'01 12° \(\) 103'37 7° \(\) 125'26 7° \(\) 129'35 2° \(\) 122'44	0°16'30 6.22690 AU 0°07'02
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00	24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0°×7 15°×701'47 16°×759'30 12°×703'18	0°11'49 0°11'47	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03	21° \(\delta\)13'40 21° \(\delta\)31'36 24° \(\delta\)18'11 0° \(\mathbb{\pi}\) 12° \(\mathbb{\pi}\)26'01 12° \(\mathbb{\pi}\)33'7 7° \(\mathbb{\pi}\)25'26 7° \(\mathbb{\pi}\)29'35 2° \(\mathbb{\pi}\)2'44 20° \(\mathbb{\pi}\)33'20	0°16'30 6.22690 AU 0°07'02
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist.	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40	24° \$\m\\\$50'28 24° \$\m\\\$50'28 24° \$\m\\\$50'29 24° \$\m\\\\$47'10 24° \$\m\\\\$3'48 27° \$\m\\\\48'37 0° \$\structure{\s	0°11'49 0°11'47 0°-16'-20	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jun 17 j 16:08	21° \(\delta \) 13'40 21° \(\delta \) 13'36 24° \(\delta \) 18'11 0° \(\mu \) 12° \(\mu \) 26'01 12° \(\mu \) 23'37 7° \(\mu \) 25'26 7° \(\mu \) 29'35 2° \(\mu \) 22'44 20° \(\mu \) 33'20 23° \(\mu \) 31'31	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40 -1645 Aug 18 j 17:42	24° \$\mu.50'28\$ 24° \$\mu.50'29\$ 24° \$\mu.47'10\$ 24° \$\mu.53'48\$ 27° \$\mu.48'37\$ 0° \$\structure{x}\$ 15° \$\structure{x}\$ 01'47\$ 16° \$\structure{x}\$ 59'30\$ 12° \$\structure{x}\$ 03'18\$ 11° \$\structure{x}\$ 59'50\$ 7° \$\structure{x}\$ 09'22	0°11'49 0°11'47 0°-16'-20	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:53	21° \(\delta \) 13'40 21° \(\delta \) 13'36 24° \(\delta \) 18'11 0° \(\mu \) 12° \(\mu \) 26'01 12° \(\mu \) 23'37 7° \(\mu \) 25'26 7° \(\mu \) 29'35 2° \(\mu \) 22'44 20° \(\mu \) 33'20 23° \(\mu \) 31'31 23° \(\mu \) 31'30	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist.	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40	24° \$\m\\\$50'28 24° \$\m\\\$50'28 24° \$\m\\\$50'29 24° \$\m\\\\$47'10 24° \$\m\\\\$3'48 27° \$\m\\\\48'37 0° \$\structure{\s	0°11'49 0°11'47 0°-16'-20	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 04:51 -1639 Jul 01 j 09:44	21°813'40 21°831'36 24°818'11 0°II 12°II 26'01 12°II 25'26 7°II 29'35 2°II 22'44 20°II 33'20 23°II 31'31 23°II 31'30 23°II 34'11	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40 -1645 Aug 18 j 17:42 -1645 Dec 21 j 07:45	24°M.35'04 24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0°×7 15°×701'47 16°×759'30 12°×703'18 11°×759'50 7°×709'22 26°×711'45	0°11'49 0°11'47 0°-16'-20 4.08741 AU	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 09:44 -1639 Jul 14 j 15:23	21° 813'40 21° 831'36 24° 818'11 0° II 12° II 26'01 12° II 25'26 7° II 29'35 2° II 22'44 20° II 33'20 23° II 31'31 23° II 31'30 23° II 34'11 26° II 28'23	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40 -1645 Aug 18 j 17:42	24°M.35'04 24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0°×7 15°×701'47 16°×759'30 12°×703'18 11°×759'50 7°×709'22 26°×711'45	0°11'49 0°11'47 0°-16'-20 4.08741 AU	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 04:51 -1639 Jul 01 j 09:44	21°813'40 21°831'36 24°818'11 0°II 12°II 26'01 12°II 25'26 7°II 29'35 2°II 22'44 20°II 33'20 23°II 31'31 23°II 31'30 23°II 34'11	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40 -1645 Aug 18 j 17:42 -1645 Dec 21 j 07:45	24°M.35'04 24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0°×7 15°×701'47 16°×759'30 12°×703'18 11°×759'50 7°×709'22 26°×711'45	0°11'49 0°11'47 0°-16'-20 4.08741 AU	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 09:44 -1639 Jul 14 j 15:23	21° 813'40 21° 831'36 24° 818'11 0° II 12° II 26'01 12° II 25'26 7° II 29'35 2° II 22'44 20° II 33'20 23° II 31'31 23° II 31'30 23° II 34'11 26° II 28'23	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 20 j 05:40 -1645 Aug 18 j 17:42 -1645 Dec 21 j 07:45 -1644 Jan 03 j 05:10	24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0°×7 15°×701'47 16°×759'30 12°×703'18 11°×759'50 7°×709'22 26°×711'45	0°11'49 0°11'47 0°-16'-20 4.08741 AU	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 04:51 -1639 Jul 01 j 09:44 -1639 Jul 14 j 15:23 -1639 Jul 31 j 00:49	21°813'40 21°831'36 24°818'11 0° II 12° II 26'01 12° II 25'26 7° II 29'35 2° II 22'44 20° II 33'20 23° II 31'31 23° II 31'30 23° II 34'11 26° II 28'23 0° 5	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40 -1645 Aug 18 j 17:42 -1645 Dec 21 j 07:45 -1644 Jan 03 j 05:10 -1644 Jan 03 j 05:07 -1644 Jan 03 j 04:08	24°M.35'04 24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0° 🗷 15° 🗷 01'47 16° 🗷 59'30 12° 🗷 03'18 11° 🗷 59'50 7° 🗷 09'22 26° 🗷 11'45 29° 🗷 16'08 29° 🗷 16'08	0°11'49 0°11'47 0°-16'-20 4.08741 AU 0°-32'-39 0°32'41	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 09:44 -1639 Jul 01 j 09:44 -1639 Jul 14 j 15:23 -1639 Jul 31 j 00:49 -1639 Nov 13 j 06:36 -1638 Jan 12 j 04:17	21°813'40 21°831'36 24°818'11 0° II 12° II 26'01 12° II 25'26 7° II 29'35 2° II 22'44 20° II 33'20 23° II 31'31 23° II 31'30 23° II 34'11 26° II 28'23 0° II 3' 547'32	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44 6.33987 AU
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40 -1645 Aug 18 j 17:42 -1645 Dec 21 j 07:45 -1644 Jan 03 j 05:10 -1644 Jan 03 j 05:07 -1644 Jan 03 j 04:08 -1644 Jan 06 j 06:37	24°M.35'04 24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0°X 15°X01'47 16°X59'30 12°X03'18 11°X59'50 7°X09'22 26°X11'45 29°X16'08 29°X16'08 29°X15'31 0°G	0°11'49 0°11'47 0°-16'-20 4.08741 AU 0°-32'-39 0°32'41	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jun 17 j 16:08 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 09:44 -1639 Jul 14 j 15:23 -1639 Jul 31 j 00:49 -1639 Nov 13 j 06:36 -1638 Jan 12 j 04:17 -1638 Jan 12 j 09:10	21° 813'40 21° 831'36 24° 818'11 0° II 12° II 26'01 12° II 25'26 7° II 29'35 2° II 22'44 20° II 33'20 23° II 31'31 23° II 31'30 23° II 34'11 26° II 28'23 0° II 30' 32 8° 50'50 8° 549'14	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44 6.33987 AU
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40 -1645 Dec 21 j 07:45 -1644 Jan 03 j 05:10 -1644 Jan 03 j 05:07 -1644 Jan 03 j 04:08 -1644 Jan 06 j 06:37 -1644 Jan 16 j 05:05	24°M.35'04 24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0° 🛪 15° 🛪 01'47 16° 🛪 59'30 12° 🛪 03'18 11° 🛪 59'50 7° 🛪 09'22 26° 🛪 11'45 29° 🛪 16'08 29° 🛪 16'08 29° 🛪 15'31 0° 🛪 2° 🛪 21'59	0°11'49 0°11'47 0°-16'-20 4.08741 AU 0°-32'-39 0°32'41	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jun 17 j 16:08 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 09:44 -1639 Jul 01 j 09:44 -1639 Jul 14 j 15:23 -1639 Jul 31 j 00:49 -1639 Nov 13 j 06:36 -1638 Jan 12 j 04:17 -1638 Jan 12 j 09:10 -1638 Mar 14 j 20:55	21° 813'40 21° 831'36 24° 818'11 0° II 12° II 26'01 12° II 25'26 7° II 29'35 2° II 22'44 20° II 33'20 23° II 31'31 23° II 31'30 23° II 34'11 26° II 28'23 0° II 32'8 8° 550'50 8° 549'14 3° 547'22	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44 6.33987 AU
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40 -1645 Aug 18 j 17:42 -1645 Dec 21 j 07:45 -1644 Jan 03 j 05:10 -1644 Jan 03 j 05:07 -1644 Jan 03 j 04:08 -1644 Jan 06 j 06:37 -1644 Jan 16 j 05:05 -1644 May 26 j 08:27	24°M.35'04 24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0° 🛪 15° 🛪 01'47 16° 🛪 59'30 12° 🛪 03'18 11° 🛪 59'50 7° 🛪 09'22 26° 🛪 11'45 29° 🛪 16'08 29° 🛪 16'06 29° 🛪 15'31 0° 🛪 2° 🛪 21'59 22° 🛪 28'05	0°11'49 0°11'47 0°-16'-20 4.08741 AU 0°-32'-39 0°32'41 6.03809 AU	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jun 17 j 16:08 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 09:44 -1639 Jul 14 j 15:23 -1639 Jul 31 j 00:49 -1639 Nov 13 j 06:36 -1638 Jan 12 j 04:17 -1638 Jan 12 j 09:10	21° 813'40 21° 831'36 24° 818'11 0° II 12° II 26'01 12° II 25'26 7° II 29'35 2° II 22'44 20° II 33'20 23° II 31'31 23° II 31'30 23° II 34'11 26° II 28'23 0° II 30' 32 8° 50'50 8° 549'14	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44 6.33987 AU
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40 -1645 Aug 18 j 17:42 -1645 Dec 21 j 07:45 -1644 Jan 03 j 05:07 -1644 Jan 03 j 05:07 -1644 Jan 06 j 06:37 -1644 Jan 16 j 05:05 -1644 May 26 j 08:27 -1644 Jul 25 j 19:00	24° \$\mu.35'04\\ 24° \$\mu.50'28\\ 24° \$\mu.50'29\\ 24° \$\mu.47'10\\ 24° \$\mu.53'48\\ 27° \$\mu.48'37\\ 0° \$\structure{\str	0°11'49 0°11'47 0°-16'-20 4.08741 AU 0°-32'-39 0°32'41 6.03809 AU	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 04:51 -1639 Jul 14 j 15:23 -1639 Jul 31 j 00:49 -1639 Nov 13 j 06:36 -1638 Jan 12 j 09:10 -1638 Mar 14 j 20:55 -1638 Jul 20 j 06:34	21° 813'40 21° 831'36 24° 818'11 0° II 12° II 26'01 12° II 25'26 7° II 29'35 2° II 22'44 20° II 33'20 23° II 31'31 23° II 31'30 23° II 34'11 26° II 28'23 0° 9 13° 947'32 8° 950'50 8° 949'14 3° 947'22 21° 937'55	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44 6.33987 AU 1°03'46 4.38127 AU
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 30 j 02:27 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40 -1645 Aug 18 j 17:42 -1645 Dec 21 j 07:45 -1644 Jan 03 j 05:07 -1644 Jan 03 j 05:07 -1644 Jan 16 j 05:05 -1644 Jan 16 j 05:05 -1644 May 26 j 08:27 -1644 Jul 25 j 19:00 -1644 Jul 25 j 08:10	24°M.35'04 24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0°ズ 15°ズ01'47 16°ズ59'30 12°ズ03'18 11°ズ59'50 7°ズ09'22 26°ズ11'45 29°ズ16'08 29°ズ16'08 29°ズ16'06 29°ズ15'31 0°℧ 2°℧21'59 22°℧28'05 17°℧27'58 17°℧31'33	0°11'49 0°11'47 0°-16'-20 4.08741 AU 0°-32'-39 0°32'41 6.03809 AU	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 04:51 -1639 Jul 14 j 15:23 -1639 Jul 31 j 00:49 -1639 Nov 13 j 06:36 -1638 Jan 12 j 09:10 -1638 Mar 14 j 20:55 -1638 Jul 20 j 06:34	21°813'40 21°831'36 24°818'11 0° II 12° II 26'01 12° II 25'26 7° II 29'35 2° II 22'44 20° II 33'20 23° II 31'31 23° II 31'30 23° II 34'11 26° II 28'23 0° II 3° II 3' 30 8° II 3' 31 8° II 3' 32 8° II 3' 32 8° II 3' 34' 34' 32 8° II 3' 34' 34' 32 8° II 3' 34' 34' 34' 32' 8° II 3' 34' 34' 34' 34' 34' 34' 34' 34' 34'	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44 6.33987 AU
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40 -1645 Aug 18 j 17:42 -1645 Dec 21 j 07:45 -1644 Jan 03 j 05:07 -1644 Jan 03 j 05:07 -1644 Jan 06 j 06:37 -1644 Jan 16 j 05:05 -1644 May 26 j 08:27 -1644 Jul 25 j 19:00	24° \$\mu.35'04\\ 24° \$\mu.50'28\\ 24° \$\mu.50'29\\ 24° \$\mu.47'10\\ 24° \$\mu.53'48\\ 27° \$\mu.48'37\\ 0° \$\struct \text{37}\\ 15° \$\struct \text{301'47}\\ 16° \$\struct \text{59'30}\\ 12° \$\struct \text{30'18}\\ 11° \$\struct \text{30'18}\\ 11° \$\struct \text{30'18}\\ 29° \$\struct \text{11'45}\\ 29° \$\struct \text{16'08}\\ 29° \$\struct \text{16'06}\\ 29° \$\struct \text{15'31}\\ 0° \$\struct \text{21'59}\\ 22° \$\struct \text{21'59}\\ 22° \$\struct \text{21'58}\\ 17° \$\struct \text{27'58}\\	0°11'49 0°11'47 0°-16'-20 4.08741 AU 0°-32'-39 0°32'41 6.03809 AU	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 04:51 -1639 Jul 14 j 15:23 -1639 Jul 31 j 00:49 -1639 Nov 13 j 06:36 -1638 Jan 12 j 09:10 -1638 Mar 14 j 20:55 -1638 Jul 20 j 06:34	21° 813'40 21° 831'36 24° 818'11 0° II 12° II 26'01 12° II 25'26 7° II 29'35 2° II 22'44 20° II 33'20 23° II 31'31 23° II 31'30 23° II 34'11 26° II 28'23 0° 9 13° 947'32 8° 950'50 8° 949'14 3° 947'22 21° 937'55	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44 6.33987 AU 1°03'46 4.38127 AU
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 30 j 02:27 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40 -1645 Aug 18 j 17:42 -1645 Dec 21 j 07:45 -1644 Jan 03 j 05:07 -1644 Jan 03 j 05:07 -1644 Jan 16 j 05:05 -1644 Jan 16 j 05:05 -1644 May 26 j 08:27 -1644 Jul 25 j 19:00 -1644 Jul 25 j 08:10	24°M.35'04 24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0°ズ 15°ズ01'47 16°ズ59'30 12°ズ03'18 11°ズ59'50 7°ズ09'22 26°ズ11'45 29°ズ16'08 29°ズ16'08 29°ズ16'06 29°ズ15'31 0°℧ 2°℧21'59 22°℧28'05 17°℧27'58 17°℧31'33	0°11'49 0°11'47 0°-16'-20 4.08741 AU 0°-32'-39 0°32'41 6.03809 AU	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 04:51 -1639 Jul 14 j 15:23 -1639 Jul 31 j 00:49 -1639 Nov 13 j 06:36 -1638 Jan 12 j 09:10 -1638 Mar 14 j 20:55 -1638 Jul 20 j 06:34	21° 813'40 21° 831'36 24° 818'11 0° II 12° II 26'01 12° II 25'26 7° II 29'35 2° II 22'44 20° II 33'20 23° II 31'31 23° II 31'30 23° II 34'11 26° II 28'23 0° 50 13° 547'32 8° 550'50 8° 549'14 3° 547'22 21° 537'55 24° 529'49 24° 529'48	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44 6.33987 AU 1°03'46 4.38127 AU
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 30 j 02:27 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Aug 18 j 17:42 -1645 Aug 18 j 17:42 -1645 Dec 21 j 07:45 -1644 Jan 03 j 05:07 -1644 Jan 03 j 05:07 -1644 Jan 06 j 06:37 -1644 Jan 16 j 05:05 -1644 Jul 25 j 19:00 -1644 Jul 25 j 08:10 -1644 Sep 22 j 09:24 -1643 Jan 16 j 18:20	24°M.35'04 24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0°x 15°x\01'47 16°x\59'30 12°x\03'18 11°x\59'50 7°x\09'22 26°x\11'45 29°x\16'08 29°x\16'08 29°x\16'06 29°x\15'31 0°\5 2°\521'59 22°\528'05 17°\527'58 17°\531'33 12°\534'46	0°11'49 0°11'47 0°-16'-20 4.08741 AU 0°-32'-39 0°32'41 6.03809 AU	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min. Earth dist. direct evening set conjunction min. Earth dist. direct evening set	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 04:51 -1639 Jul 01 j 09:44 -1639 Jul 14 j 15:23 -1639 Jul 31 j 00:49 -1639 Nov 13 j 06:36 -1638 Jan 12 j 04:17 -1638 Jan 12 j 09:10 -1638 Mar 14 j 20:55 -1638 Aug 02 j 11:01 -1638 Aug 02 j 10:58 -1638 Aug 01 j 15:45	21° 813'40 21° 831'36 24° 818'11 0° II 12° II 26'01 12° II 25'26 7° II 29'35 2° II 22'44 20° II 33'20 23° II 31'31 23° II 31'30 23° II 34'11 26° II 28'23 0° 50 13° 547'32 8° 550'50 8° 549'14 3° 547'22 21° 537'55 24° 529'49 24° 529'48	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44 6.33987 AU 1°03'46 4.38127 AU 0°59'06 0°59'07
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 30 j 02:27 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40 -1645 Aug 18 j 17:42 -1645 Dec 21 j 07:45 -1644 Jan 03 j 05:07 -1644 Jan 03 j 05:07 -1644 Jan 06 j 06:37 -1644 Jan 16 j 05:05 -1644 Jan 25 j 19:00 -1644 Jul 25 j 19:00 -1644 Sep 22 j 09:24	24°M.35'04 24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0°\$\textbf{x}\$ 15°\$\textbf{x}\$01'47 16°\$\textbf{x}\$59'30 12°\$\textbf{x}\$03'18 11°\$\textbf{x}\$59'50 7°\$\textbf{x}\$09'22 26°\$\textbf{x}\$11'45 29°\$\textbf{x}\$16'08 29°\$\textbf{x}\$16'06 29°\$\textbf{x}\$15'31 0°\$\textbf{x}\$22'\$\textbf{z}\$28'05 17°\$\textbf{z}\$27'58 17°\$\textbf{z}\$31'33 12°\$\textbf{z}\$34'46 0°\$\textbf{x}\$	0°11'49 0°11'47 0°-16'-20 4.08741 AU 0°-32'-39 0°32'41 6.03809 AU	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 04:51 -1639 Jul 01 j 09:44 -1639 Jul 01 j 09:44 -1639 Jul 14 j 15:23 -1639 Jul 31 j 00:49 -1639 Nov 13 j 06:36 -1638 Jan 12 j 04:17 -1638 Jan 12 j 09:10 -1638 Mar 14 j 20:55 -1638 Aug 02 j 11:01 -1638 Aug 02 j 10:58 -1638 Aug 01 j 15:45 -1638 Aug 01 j 15:45	21° 813'40 21° 831'36 24° 818'11 0° II 12° II 26'01 12° II 25'26 7° II 29'35 2° II 22'44 20° II 33'20 23° II 31'31 23° II 31'30 23° II 34'11 26° II 28'23 0° 56 13° 54'32 8° 550'50 8° 549'14 3° 547'22 21° 537'55 24° 529'49 24° 529'49 24° 529'48 24° 519'19 27° 520'07	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44 6.33987 AU 1°03'46 4.38127 AU 0°59'06 0°59'07
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 30 j 02:27 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40 -1645 Aug 18 j 17:42 -1645 Dec 21 j 07:45 -1644 Jan 03 j 05:07 -1644 Jan 03 j 05:07 -1644 Jan 06 j 06:37 -1644 Jan 16 j 05:05 -1644 Jul 25 j 08:10 -1644 Sep 22 j 09:24 -1643 Jan 16 j 18:20 -1643 Jan 25 j 03:41	24°M35'04 24°M50'28 24°M50'29 24°M47'10 24°M53'48 27°M48'37 0°ズ 15°ズ01'47 16°ズ59'30 12°ズ03'18 11°ズ59'50 7°ズ09'22 26°ズ11'45 29°ズ16'08 29°ズ16'08 29°ズ16'08 29°ズ15'31 0°줍 2°G21'59 22°G28'05 17°G31'33 12°G34'46 0°≈ 1°≈59'31	0°11'49 0°11'47 0°-16'-20 4.08741 AU 0°-32'-39 0°32'41 6.03809 AU -1°-18'-21 4.00285 AU	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct evening set	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 04:51 -1639 Jul 01 j 09:44 -1639 Jul 14 j 15:23 -1639 Jul 31 j 00:49 -1639 Nov 13 j 06:36 -1638 Jul 12 j 04:17 -1638 Jul 20 j 06:34 -1638 Aug 02 j 11:01 -1638 Aug 02 j 10:58 -1638 Aug 01 j 15:45 -1638 Aug 01 j 15:45 -1638 Aug 07 j 22:41	21°\&13'40 21°\&31'36 24°\&18'11 0°\II 12°\II26'01 12°\II25'26 7°\II29'35 2°\II22'44 20°\II33'20 23°\II31'31 23°\II31'31 23°\II31'30 23°\II34'11 26°\II28'23 0°\S 13°\S47'32 8°\S50'50 8°\S49'14 3°\S47'22 21°\S37'55 24°\S29'48 24°\S29'48 24°\S19'19 27°\S20'07 0°\Omega	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44 6.33987 AU 1°03'46 4.38127 AU 0°59'06 0°59'07
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction set retrograde opposition conjunction min. Earth dist. direct evening set conjunction	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 29 j 20:45 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Aug 18 j 17:42 -1645 Aug 18 j 17:42 -1645 Dec 21 j 07:45 -1644 Jan 03 j 05:10 -1644 Jan 03 j 05:07 -1644 Jan 03 j 04:08 -1644 Jan 16 j 05:05 -1644 Jan 16 j 05:05 -1644 Jul 25 j 19:00 -1644 Jul 25 j 08:10 -1644 Sep 22 j 09:24 -1643 Jan 16 j 18:20 -1643 Feb 07 j 08:08	24°M.35'04 24°M.50'28 24°M.50'29 24°M.47'10 24°M.53'48 27°M.48'37 0°X 15°X01'47 16°X.59'30 12°X.03'18 11°X.59'50 7°X.09'22 26°X.11'45 29°X.16'08 29°X.16'08 29°X.15'31 0°G 2°G21'59 22°G28'05 17°G27'58 17°G31'33 12°G34'46 0°≈ 1°≈59'31 5°≈09'19	0°11'49 0°11'47 0°-16'-20 4.08741 AU 0°-32'-39 0°32'41 6.03809 AU -1°-18'-21 4.00285 AU	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 09:44 -1639 Jul 01 j 09:44 -1639 Jul 14 j 15:23 -1639 Jul 31 j 00:49 -1639 Nov 13 j 06:36 -1638 Jul 12 j 04:17 -1638 Jul 20 j 06:34 -1638 Aug 02 j 11:01 -1638 Aug 02 j 10:58 -1638 Aug 01 j 15:45 -1638 Aug 07 j 12:08 -1638 Aug 27 j 22:41 -1638 Dec 13 j 17:36	21° 813'40 21° 831'36 24° 818'11 0° II 12° II 26'01 12° II 25'26 7° II 29'35 2° II 22'44 20° II 33'20 23° II 31'31 23° II 31'30 23° II 34'11 26° II 28'23 0° 9 13° 947'32 8° 950'50 8° 949'14 3° 947'22 21° 937'55 24° 929'49 24° 929'49 24° 929'48 24° 919'19 27° 920'07 0° \$\textsup 115'11	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44 6.33987 AU 1°03'46 4.38127 AU 0°59'06 0°59'07 6.40856 AU
max. Earth dist. conjunction minimum elong behind sun begin behind sun end morning rise desc. node retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-1646 Nov 29 j 00:05 -1646 Nov 30 j 02:26 -1646 Nov 30 j 02:27 -1646 Nov 30 j 02:27 -1646 Nov 30 j 08:09 -1646 Dec 12 j 19:33 -1646 Dec 22 j 07:16 -1645 Mar 15 j 01:15 -1645 Apr 19 j 23:52 -1645 Jun 19 j 19:00 -1645 Jun 20 j 05:40 -1645 Aug 18 j 17:42 -1645 Dec 21 j 07:45 -1644 Jan 03 j 05:07 -1644 Jan 03 j 05:07 -1644 Jan 06 j 06:37 -1644 Jan 16 j 05:05 -1644 Jul 25 j 08:10 -1644 Sep 22 j 09:24 -1643 Jan 16 j 18:20 -1643 Jan 25 j 03:41	24°M35'04 24°M50'28 24°M50'29 24°M47'10 24°M53'48 27°M48'37 0°ズ 15°ズ01'47 16°ズ59'30 12°ズ03'18 11°ズ59'50 7°ズ09'22 26°ズ11'45 29°ズ16'08 29°ズ16'08 29°ズ16'08 29°ズ15'31 0°줍 2°G21'59 22°G28'05 17°G31'33 12°G34'46 0°≈ 1°≈59'31	0°11'49 0°11'47 0°-16'-20 4.08741 AU 0°-32'-39 0°32'41 6.03809 AU -1°-18'-21 4.00285 AU	minimum elong max. Earth dist. morning rise retrograde asc. node opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. direct evening set	-1640 May 28 j 03:34 -1640 May 29 j 11:31 -1640 Jun 10 j 20:52 -1640 Jul 07 j 03:11 -1640 Oct 13 j 06:58 -1640 Oct 28 j 07:32 -1640 Dec 11 j 21:28 -1640 Dec 11 j 09:07 -1639 Feb 10 j 08:03 -1639 Jul 01 j 04:53 -1639 Jul 01 j 04:51 -1639 Jul 01 j 04:51 -1639 Jul 01 j 09:44 -1639 Jul 14 j 15:23 -1639 Jul 31 j 00:49 -1639 Nov 13 j 06:36 -1638 Jul 12 j 04:17 -1638 Jul 20 j 06:34 -1638 Aug 02 j 11:01 -1638 Aug 02 j 10:58 -1638 Aug 01 j 15:45 -1638 Aug 01 j 15:45 -1638 Aug 07 j 22:41	21°\&13'40 21°\&31'36 24°\&18'11 0°\II 12°\II26'01 12°\II25'26 7°\II29'35 2°\II22'44 20°\II33'20 23°\II31'31 23°\II31'31 23°\II31'30 23°\II34'11 26°\II28'23 0°\S 13°\S47'32 8°\S50'50 8°\S49'14 3°\S47'22 21°\S37'55 24°\S29'48 24°\S29'48 24°\S19'19 27°\S20'07 0°\Omega	0°16'30 6.22690 AU 0°07'02 4.28668 AU 0°25'42 0°25'44 6.33987 AU 1°03'46 4.38127 AU 0°59'06 0°59'07

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1637 in astronomical counting style is the year 1638 BCE in historical counting style. min. Earth dist. -1637 Feb 12 j 21:08 $9^{\circ}\Omega$ 15'11 4.42099 AU conjunction -1631 Feb 12 j 12:45 10°≈22'15 -1°-9'-9 minimum elong -1637 Apr 15 j 12:55 -1631 Feb 12 j 12:43 10°≈22'14 1°09'11 direct 4°Ω18'51 -1637 Jul 17 j 20:04 15° Ω -1631 Feb 13 j 21:41 10°≈42'00 5.98636 AU max. Earth dist. evening set -1637 Aug 20 j 15:51 22°**Ω**02'20 -1631 Feb 25 j 21:27 13°≈34'09 morning rise -1637 Aug 31 j 20:50 24° Ω 29'07 6.41516 AU max. Earth dist. -1631 Mar 03 j 22:20 15°≈ -1631 May 17 j 11:17 0°)(-1631 Jul 08 j 05:32 conjunction -1637 Sep 02 j 11:59 $24^{\circ}\Omega 50'34$ 1°15'36 retrograde 4°**₩**02'16 -1637 Sep 02 j 11:58 24° Ω50'33 minimum elong 1°15'37 -1631 Aug 29 j 10:38 30°R≈ morning rise -1637 Sep 15 j 05:22 $27^{\circ}\Omega 37'26$ min. Earth dist. -1631 Sep 04 j 22:26 29°≈07'44 3.99614 AU -1637 Sep 26 j 05:34 0° M opposition -1631 Sep 06 j 02:37 28°≈58'12 -1°-52'-38 retrograde -1636 Jan 13 j 16:48 14° m 35'40 direct -1631 Nov 03 j 01:11 24°≈03′10 -1636 Mar 14 j 08:17 -1630 Jan 04 j 02:32 opposition 9° Mp 43'53 1°50'47 0°**∀** -1630 Mar 08 j 10:36 min. Earth dist. -1636 Mar 15 j 15:52 9°**m** 33'48 4.39529 AU evening set 13°**¥**28′28 direct -1636 May 16 j 02:01 4° m/42'42 evening set -1636 Sep 19 j 12:23 22° Mp 32'43 conjunction -1630 Mar 21 j 23:29 16° **X** 40'17 -1°-13'-28 max. Earth dist. -1636 Sep 30 j 05:27 24° m 55'22 6.35832 AU minimum elong -1630 Mar 21 j 23:31 16° **∺**40'18 1°13'29 max. Earth dist. -1630 Mar 24 j 00:01 17°**₩**08'58 6.02238 AU 19°**¥**53′27 conjunction -1636 Oct 02 j 03:36 25° m 21'03 1°11'12 morning rise -1630 Apr 04 j 15:21 minimum elong -1636 Oct 02 j 03:37 25° m 21'04 -1630 May 20 j 09:38 $0^{\circ}\Upsilon$ morning rise -1636 Oct 14 j 16:44 28° m 08'34 retrograde -1630 Aug 13 j 07:56 9°Υ53'32 -1636 Oct 23 j 03:09 0∘**⊽** opposition -1630 Oct 11 j 22:46 4°**Υ**48'15 -1°-36'-29 retrograde -1635 Feb 13 i 20:37 15° **2**36'01 min. Earth dist. -1630 Oct 10 i 14:43 4°Υ59'12 4.06664 AU opposition -1635 Apr 15 j 19:48 10° **△**44'10 1°29'31 -1630 Nov 29 i 11:08 30°R € min. Earth dist. -1635 Apr 17 i 04:21 10° **△**33'49 4.31078 AU direct -1630 Dec 09 i 04:59 29° ¥ 50'08 direct -1635 Jun 17 j 00:26 5°**≏**45'31 -1630 Dec 19 i 00:19 $0^{\circ}\Upsilon$ -1635 Oct 20 j 17:08 23° £254'34 evening set -1629 Apr 14 j 10:12 18° Υ 55'23 evening set -1635 Oct 31 j 14:12 26° **2**23'13 6.25301 AU max Earth dist -1629 Apr 28 j 04:21 22°**Υ**'05'06 0°-50'-19 conjunction -1635 Nov 02 j 07:16 26° **2**46'42 0°46'02 -1629 Apr 28 j 04:25 22°**Υ**05'08 conjunction minimum elong 0°50'19 -1629 Apr 30 j 03:36 22°**Y**32'17 -1635 Nov 02 j 07:18 26°**Ω**46'43 0°46'01 minimum elong max. Earth dist. 6.12097 AU -1635 Nov 14 j 20:53 29° **△**38'47 morning rise $-1629 \text{ May } 11 \text{ j } 23:27 \quad 25^{\circ} \Upsilon 15'06$ morning rise -1635 Nov 16 j 10:16 0°ML -1629 Jun 02 j 04:55 0°**8** -1629 Sep 16 j 11:17 14°**8**16'52 -1634 Feb 03 j 10:44 15°ML retrograde -1634 Mar 20 j 01:05 17° ML 56'58 -1629 Nov 14 j 22:53 9°**8**13'18 0°-46'-40 retrograde opposition -1634 May 04 j 08:37 15°RM -1629 Nov 13 j 22:49 9°**8**21'28 4.18196 AU min. Earth dist. -1634 May 20 j 00:07 13°M 03'27 0°40'00 -1628 Jan 13 j 06:20 4°**8**12'15 opposition direct -1634 May 21 j 01:14 12° M 55'24 4.19066 AU min. Earth dist. -1628 Apr 12 j 17:30 15°**8** direct -1634 Jul 20 j 03:42 8°ML07'35 evening set -1628 May 19 j 04:38 22°**8**47'37 -1634 Sep 27 j 18:00 15°M evening set -1634 Nov 22 j 02:07 26°M44'29 conjunction -1628 Jun 01 j 22:17 25°**8**51'51 0°-10'-37 minimum elong -1628 Jun 01 j 22:18 25°**8**51'51 -1634 Dec 04 j 19:00 29°ML42'57 0°05'34 behind sun begin -1628 Jun 01 j 15:56 25°848'19 conjunction -1634 Dec 04 j 19:01 29°M.42'58 behind sun end -1628 Jun 02 j 04:40 25°**8**55'24 minimum elong 0°05'32 -1634 Dec 04 j 11:18 29°M38'27 max. Earth dist. -1628 Jun 03 j 01:41 26°**8**07'10 behind sun begin 6.24408 AU -1634 Dec 05 j 02:44 29°M47'28 -1628 Jun 15 j 15:04 28°**8**55'22 behind sun end morning rise -1634 Dec 03 j 19:20 29°M29'04 6.12917 AU -1628 Jun 20 j 11:51 0°**Ⅱ** max. Earth dist. -1634 Dec 06 i 00:03 0°*⊼* asc. node -1628 Sep 08 i 05:09 14°**Д**30'49 morning rise -1634 Dec 17 i 13:03 2°**∡**¹42'15 retrograde -1628 Oct 17 j 14:01 16°**Д**55'29 desc. node -1633 Jan 22 j 13:38 10° ₹ 45'25 opposition -1628 Dec 16 j 05:46 11° II 55'26 0° 15'31 retrograde -1633 Apr 25 j 03:33 22° ₹ 01'52 min. Earth dist. -1628 Dec 15 j 19:48 11°**II**58'47 4.30127 AU -1633 Jun 24 j 22:44 17° ₹ 05'08 0°-25'-51 direct -1627 Feb 14 j 20:33 6°**Д**52'30 opposition min. Earth dist. -1633 Jun 25 j 05:13 17° ₹ 03'01 4.07258 AU evening set -1627 Jun 22 j 05:50 25°**Ⅱ**00'11 direct -1633 Aug 23 j 15:13 12° ₹ 11'28 -1627 Jul 05 j 17:41 27° **II** 57'31 0° 31'02 -1633 Dec 20 j 19:20 0°₹ conjunction evening set -1633 Dec 26 j 06:23 1°る17'30 minimum elong -1627 Jul 05 j 17:39 27°**I**57'29 0°31'03 max. Earth dist. -1627 Jul 05 j 19:25 27°**Д**58'28 6.35089 AU -1627 Jul 15 j 01:00 conjunction -1632 Jan 08 j 04:41 4°る22'43 0°-38'-25 0.ಎ -1632 Jan 08 j 04:38 4°る22'41 0°38'28 -1627 Jul 19 j 02:52 minimum elong morning rise 0°€53'25 -1632 Jan 08 j 08:49 4°**ට**25'11 6.02771 AU -1627 Nov 17 j 12:08 18°508'23 max. Earth dist. retrograde -1632 Jan 21 j 05:32 7°**る**29'26 -1626 Jan 16 j 10:29 13°5012'15 1°10'17 morning rise opposition -1632 May 31 j 16:21 27°る40'39 -1626 Jan 16 j 17:45 13°509'52 retrograde min. Earth dist. 4.38818 AU min. Earth dist. -1632 Jul 30 j 11:53 22°정44'17 3.99816 AU direct -1626 Mar 19 j 06:09 8°908'50 opposition -1632 Jul 31 j 01:05 22°**궁**39'54 -1°-25'-14 evening set -1626 Jul 24 j 16:15 25°558'31 direct -1632 Sep 27 j 13:39 17°**정**46'36 -1632 Dec 30 j 02:51 0°≈ conjunction -1626 Aug 06 j 19:25 28°549'51 1°02'29 -1631 Jan 30 j 07:14 7°≈12'04 -1626 Aug 06 j 19:22 28°549'49 evening set minimum elong 1°02'31

max. Earth dist.

-1626 Aug 05 j 19:31 28°536'49

6.41068 AU

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 25

•	omena of Jupiter from		•			, .	ige 25
Attention, astronom	nical year style is used: Tl	-	in astronomical co				
	-1626 Aug 12 j 04:09	0° Ω		retrograde	-1620 Jun 05 j 21:41	2°≈48'48	
morning rise	-1626 Aug 19 j 19:33	1° Ω 39'37			-1620 Jul 19 j 00:16		
	-1626 Oct 29 j 22:47			opposition	-1620 Aug 05 j 04:42		
retrograde	-1626 Dec 18 j 00:58			min. Earth dist.	-1620 Aug 04 j 12:56		3.99526 AU
	-1625 Feb 06 j 01:23	15°RΩ		direct	-1620 Oct 02 j 13:58		
opposition		13° Ω 41'21	1°44'10		-1620 Dec 10 j 00:16	0° ≈	
min. Earth dist.	3		4.41859 AU	evening set	-1619 Feb 04 j 09:22		
direct	-1625 Apr 19 j 22:02	8° Ω 38'39			-1619 Feb 15 j 12:21	15° ≈	
	-1625 Jun 28 j 06:25						
evening set	-1625 Aug 24 j 23:26			conjunction	-1619 Feb 17 j 15:45		-1°-11'-29
max. Earth dist.	-1625 Sep 05 j 03:25	28° {\ 49'45	6.40838 AU	minimum elong	-1619 Feb 17 j 15:44		1°11'32
		_		max. Earth dist.	-1619 Feb 19 j 02:15		5.98824 AU
conjunction	-1625 Sep 06 j 18:53		1°16'14	morning rise	-1619 Mar 03 j 01:36		
minimum elong	-1625 Sep 06 j 18:52		1°16'14		-1619 Apr 22 j 23:19	0° ∀	
	-1625 Sep 10 j 11:24	0° m)		retrograde	-1619 Jul 13 j 06:03	9° ∺ 09'29	
morning rise	-1625 Sep 19 j 11:18	1° m 58'13		min. Earth dist.	-1619 Sep 09 j 21:46	4°) € 15'04	4.00270 AU
retrograde	-1624 Jan 18 j 02:03	18° m 59'49		opposition	-1619 Sep 11 j 03:14	4°) €05'04	-1°-52'-57
opposition	-1624 Mar 18 j 19:20	14° m 08'10	1°49'37		-1619 Oct 16 j 22:41		
min. Earth dist.	-1624 Mar 20 j 02:42	13° m 58'10	4.38480 AU	direct	-1619 Nov 08 j 01:41	29° ≈ 09'39	
direct	-1624 May 20 j 11:01	9° ™ 07'23			-1619 Nov 30 j 06:40	0° ∀	
evening set	-1624 Sep 23 j 20:48	27° m 00'01		evening set	-1618 Mar 13 j 13:25	18° ¥ 33′01	
max. Earth dist.	-1624 Oct 04 j 13:10	29° m 22'48	6.34493 AU				
				conjunction	-1618 Mar 27 j 03:24	21°) 44′48	-1°-11'-44
conjunction	-1624 Oct 06 j 11:30	29° m 48'42	1°08'48	minimum elong	-1618 Mar 27 j 03:26		1°11'46
minimum elong	-1624 Oct 06 j 11:32	29° m 48'43	1°08'49	max. Earth dist.	-1618 Mar 29 j 05:38	22°) 14′25	6.03309 AU
	-1624 Oct 07 j 07:42	0∘ ⊽		morning rise	-1618 Apr 09 j 19:49	24°) ₹ 57'45	
morning rise	-1624 Oct 19 j 00:33	2° £ 36'43			-1618 May 01 j 20:11	0 ° Υ	
retrograde	-1623 Feb 18 j 14:10	20° ≏ 10'21		retrograde	-1618 Aug 18 j 04:53	14° Y 51'10	
opposition	-1623 Apr 20 j 12:27	15° ≏ 18'25	1°24'03	min. Earth dist.	-1618 Oct 15 j 11:11	9° Ƴ 56'31	4.08016 AU
min. Earth dist.	-1623 Apr 21 j 21:05	15° ≏ 08'02	4.29524 AU	opposition	-1618 Oct 16 j 17:57	9° Ƴ 46'01	-1°-31'-10
direct	-1623 Jun 21 j 15:04	10° ≏ 20'09		direct	-1618 Dec 14 j 03:19	4° Ƴ 47'29	
evening set	-1623 Oct 25 j 04:15	28° ≏ 32'41		evening set	-1617 Apr 19 j 10:38	23° Y '49'10	
	-1623 Oct 31 j 13:17	0° M.					
max. Earth dist.	-1623 Nov 05 j 03:44	1°ML03'16	6.23671 AU	conjunction	-1617 May 03 j 05:00	26° Y 58′21	0°-45'-29
				minimum elong	-1617 May 03 j 05:03	26° Y 58′23	0°45'28
conjunction	-1623 Nov 06 j 18:40	1°M25'35	0°41'02	max. Earth dist.	-1617 May 05 j 01:36	27° Y 23'55	6.13611 AU
minimum elong	-1623 Nov 06 j 18:42	1°M25'37	0°41'01		-1617 May 16 j 10:43	9° 8	
morning rise	-1623 Nov 19 j 08:40	4°M18'33		morning rise	-1617 May 17 j 00:18	0° 8 07'43	
	-1622 Jan 08 j 22:27	15° M ₊			-1617 Jul 31 j 11:47	15° 8	
retrograde	-1622 Mar 24 j 22:40	22°M44'34		retrograde	-1617 Sep 20 j 23:40	19° 8 01'12	
opposition	-1622 May 24 j 22:34	17°M50'40	0°31'17		-1617 Nov 11 j 20:13	15° ₹ 8	
min. Earth dist.	-1622 May 25 j 20:32	17°M43'37	4.17475 AU	opposition	-1617 Nov 19 j 12:04	13° 8 58'01	0°-38'-17
	-1622 Jun 17 j 14:57	15°RM₊		min. Earth dist.	-1617 Nov 18 j 13:07	14° 8 05'49	4.19720 AU
direct	-1622 Jul 24 j 20:23	12°M55'13		direct	-1616 Jan 17 j 22:52	8° 8 56'36	
	-1622 Aug 30 j 15:42	15° M ₊			-1616 Mar 23 j 01:03	15° 8	
	-1622 Nov 19 j 21:21	0° ∡ ¹		evening set	-1616 May 24 j 00:22	27° 8 28'35	
evening set	-1622 Nov 26 j 18:07	1° ∡ ³35'40			-1616 Jun 04 j 08:17	Π $^{\circ}0$	
desc. node	-1622 Dec 02 j 07:43	2° ₹ ¹53'53					
				conjunction	-1616 Jun 06 j 17:35	0°Д32′00	0°-4'-39
conjunction	-1622 Dec 09 j 11:32	4° ∡ ³34'58	0°00'-49	minimum elong	-1616 Jun 06 j 17:36	0°Ⅱ32′01	0°04'38
minimum elong	-1622 Dec 09 j 11:32	4° ∡ ³34'58	0°00'51	behind sun begin	-1616 Jun 06 j 09:28	0° Ⅱ 27′29	
behind sun begin	-1622 Dec 09 j 03:30	4° ∡ ³30′16		behind sun end	-1616 Jun 07 j 01:44	0°∏36′32	
behind sun end	-1622 Dec 09 j 19:34	4° ₹ ³39'41		max. Earth dist.	-1616 Jun 07 j 17:27	0° Ⅱ 45'19	6.25841 AU
max. Earth dist.	-1622 Dec 08 j 15:42	4° ₹ ¹23'18	6.11494 AU	morning rise	-1616 Jun 20 j 09:34	3° Ⅱ 34'35	
morning rise	-1622 Dec 22 j 06:20	7° ∡ ³35'14		asc. node	-1616 Jul 19 j 10:43	9° Ⅱ 48'42	
retrograde	-1621 Apr 30 j 07:55	27° ₹ 02'19		retrograde	-1616 Oct 22 j 00:08	21° Ⅱ 28′02	
opposition	-1621 Jun 30 j 01:36	22° ₹ 05'02	0°-35'-8	opposition	-1616 Dec 20 j 15:15	16° Ⅱ 28'33	0°23'58
min. Earth dist.	-1621 Jun 30 j 05:58	22° ₹ 103'37	4.06109 AU	min. Earth dist.	-1616 Dec 20 j 08:11	16° Ⅱ 30′55	4.31341 AU
direct	-1621 Aug 28 j 15:02	17° ∡ 11'31		direct	-1615 Feb 19 j 10:33	11° Ⅱ 25′28	
	-1621 Dec 03 j 17:48	ರ°0		evening set	-1615 Jun 26 j 20:34	29° Ⅲ 30′48	
evening set	-1621 Dec 31 j 04:03	6° ප 20'15			-1615 Jun 29 j 02:09	0°€	
conjunction	-1620 Jan 13 j 03:16	9° ප 26'11	0°-43'-52	conjunction	-1615 Jul 10 j 07:21	2° 5 27'20	0°36'15
minimum elong	-1620 Jan 13 j 03:13	9° පි 26'10	0°43'54	minimum elong	-1615 Jul 10 j 07:18	2° 5 27'18	0°36'16
max. Earth dist.	-1620 Jan 13 j 11:51	9° ප 31'20	6.01995 AU	max. Earth dist.	-1615 Jul 10 j 05:05	2°526'05	6.35987 AU
morning rise	-1620 Jan 26 j 05:07	12° ප 33'41		morning rise	-1615 Jul 23 j 15:25	5°522'23	
	1600 4 00:00 00	0000		4 1	161531 21:10.06	222	
	-1620 Apr 23 j 22:22	0° ≈		retrograde	-1615 Nov 21 j 19:06	22° © 33'51	

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1614 in astronomical counting style is the year 1615 BCE in historical counting style. -1614 Jan 20 j 18:37 17°\$38'11 1°16'32 -1609 Nov 14 j 23:29 0°ਰ opposition min. Earth dist. -1614 Jan 21 j 03:41 17°535'12 4.39375 AU -1608 Jan 04 j 23:05 11°**⋜**14'50 evening set -1614 Mar 23 j 16:29 12°534'46 direct -1614 Jul 27 j 07:21 -1608 Jan 17 j 22:59 14° 중21'20 0°-48'-50 0° Ω conjunction -1614 Jul 29 j 03:14 -1608 Jan 17 j 22:56 14°**3**21'18 evening set 0°**£**23′42 minimum elong 0°48'52 max. Earth dist. -1614 Aug 10 j 04:00 -1608 Jan 18 j 09:39 3°**Ω**00'40 6.41256 AU max. Earth dist. 14°**る**27'44 6.01432 AU -1608 Jan 31 j 01:54 17°**る**29'31 morning rise -1614 Aug 11 j 05:19 conjunction 3°**Ω**14'28 1°05'36 -1608 Mar 28 j 10:18 -1614 Aug 11 j 05:16 7°≈47'50 minimum elong 3°**Ω**14'27 1°05'38 retrograde -1608 Jun 10 j 22:30 morning rise -1614 Aug 24 j 04:07 6°**Ω**03'40 min. Earth dist. -1608 Aug 09 j 10:50 2°**≈**52'05 3.99311 AU -1614 Oct 07 j 00:55 15° Ω opposition -1608 Aug 10 j 04:43 2°**≈**46′06 -1°-36'-41 -1614 Dec 22 j 08:59 -1608 Sep 01 j 07:08 retrograde 22°**Ω**58′16 30°Ŗる -1608 Oct 07 j 11:35 opposition -1613 Feb 20 j 17:41 $18^{\circ}\Omega$ 05'28 1° 46'46 direct 27°る52'30 min. Earth dist. -1613 Feb 21 j 17:25 $17^{\circ}\Omega$ 57'50 4.41701 AU -1608 Nov 12 j 07:51 0°≈ -1613 Mar 18 j 15:49 15°RΩ -1607 Jan 30 j 12:36 15°≈ direct -1613 Apr 24 j 08:16 13°**Ω**03'03 evening set -1607 Feb 09 j 08:15 17°≈19'17 -1613 May 31 j 05:10 15°Ω -1613 Aug 25 j 15:57 conjunction -1607 Feb 22 j 15:49 20°≈30'12 -1°-13'-13 evening set -1613 Aug 29 j 08:24 0° Mp 48'04minimum elong -1607 Feb 22 j 15:48 20°≈30'12 1°13'15 max. Earth dist. -1613 Sep 09 j 09:10 3° m/ 13'07 6.40351 AU max. Earth dist. -1607 Feb 24 j 05:48 20°≈52'56 5.98975 AU morning rise -1607 Mar 08 j 02:29 23°≈42'46 conjunction -1613 Sep 11 i 02:50 3° m 36'01 1°16'29 -1607 Apr 04 i 07:46 0°**)**€ minimum elong -1613 Sep 11 i 02:50 3° m 36'01 1°16'29 retrograde -1607 Jul 18 i 05:51 14°**)**€07'40 -1613 Sep 23 j 18:40 6° m 22'46 min. Earth dist. -1607 Sep 14 i 19:19 9°**升**12'59 4.00788 AU morning rise retrograde -1612 Jan 22 j 14:12 23° m 26'59 opposition -1607 Sep 16 j 00:30 9°**)**(03'04 -1°-52'-27 -1612 Mar 23 j 07:54 18° m 35'22 1°47'51 -1607 Nov 12 j 23:20 4°**₩**07'19 opposition direct -1612 Mar 24 j 15:53 18° m 25'10 4.37710 AU -1606 Mar 18 j 13:55 23°**∺**29'40 min. Earth dist. evening set -1612 May 24 j 23:02 13° m 34'52 direct -1612 Sep 21 j 12:35 -1606 Apr 01 j 04:40 26° \(\frac{1}{4}\) 41'28 -1°-9'-33 0∘⊽ conjunction -1612 Sep 28 j 05:13 -1606 Apr 01 j 04:42 26° ¥41'29 1°09'35 evening set 1° \(\Omega\) 28'44 minimum elong -1612 Oct 08 j 23:25 -1606 Apr 03 j 06:06 27° ¥ 10'30 6.04137 AU max. Earth dist. 3°**£**52'51 6.33518 AU max. Earth dist. -1606 Apr 14 j 21:58 29° **H** 54'22 morning rise -1612 Oct 10 j 19:45 -1606 Apr 15 j 07:38 0°**Υ** conjunction 4°**2**17'42 1°06'03 -1612 Oct 10 j 19:48 4°**♀**17'43 -1606 Aug 22 j 21:39 19°**Υ**42'07 minimum elong 1°06'03 retrograde -1612 Oct 23 j 08:29 7°**♀**06'01 -1606 Oct 20 j 03:35 14°**Υ**47'41 4.09078 AU morning rise min. Earth dist. -1611 Feb 23 j 05:04 24°**£**44'33 -1606 Oct 21 j 10:26 14°**Y**37'08 -1°-25'-23 retrograde opposition -1606 Dec 18 j 21:19 9° **Y** 38'13 -1611 Apr 25 j 05:12 19°**£**52'24 1°18'06 opposition direct min. Earth dist. -1611 Apr 26 j 12:04 19°**♀**42'35 4.28397 AU evening set -1605 Apr 24 j 09:17 28°**Y**37'44 direct -1611 Jun 26 j 04:21 14°**♀**54'35 -1605 Apr 30 j 09:40 0°8 -1611 Oct 15 j 14:55 0°M evening set -1611 Oct 29 j 14:42 3°ML08'54 conjunction -1605 May 08 j 03:57 1°**8**46'31 0°-40'-25 max. Earth dist. -1611 Nov 09 j 15:52 5°M40'53 6.22488 AU -1605 May 08 j 04:00 1°846'32 0°40'25 minimum elong max. Earth dist. -1605 May 09 j 22:02 2°**8**10'34 6.14841 AU -1611 Nov 11 j 05:06 6°M02'18 0°35'52 -1605 May 21 j 23:13 4°**8**55'20 conjunction morning rise -1611 Nov 11 j 05:08 6°**™**02'19 -1605 Jul 08 j 08:57 15°8 minimum elong 0°35'50 -1611 Nov 23 j 19:33 morning rise 8°M55'56 retrograde -1605 Sep 25 i 13:20 23°841'53 -1611 Dec 21 i 03:00 15°M min. Earth dist. -1605 Nov 23 i 03:57 18°846'04 4.20987 AU retrograde -1610 Mar 29 j 20:05 27° ML 28'16 opposition opposition -1610 May 29 j 19:34 22° ML33'56 0°22'31 -1605 Dec 24 i 10:16 15°R8 min. Earth dist. -1610 May 30 j 16:01 22°M27'22 4.16292 AU direct -1604 Jan 22 i 15:43 13°837'29 direct -1610 Jul 29 j 14:33 17° ML38'45 -1604 Feb 21 i 04:53 15°8 desc. node -1610 Oct 13 j 10:30 25°M 44'14 -1604 May 19 j 04:08 $0^{\circ}\Pi$ -1610 Nov 03 j 07:22 evening set -1604 May 28 j 19:01 2°II06'53 0°×7 evening set -1610 Dec 01 j 08:15 6°**х** 21′22 asc. node -1604 May 30 j 02:35 2°**Ⅲ**24'21 -1610 Dec 13 j 10:10 max. Earth dist. 9°**х** 11′52 6.10431 AU -1604 Jun 11 j 11:45 conjunction 5°**I**109'35 0°01'22 conjunction -1610 Dec 14 j 02:20 9°**∡**121'24 0°-7'00 minimum elong -1604 Jun 11 j 11:45 5°**Ⅱ**09'35 0°01'25 -1610 Dec 14 j 02:19 9°**х** 21′23 0°07'03 behind sun begin -1604 Jun 11 j 03:25 5°**Ⅱ**04'58 minimum elong -1610 Dec 13 j 18:52 9°×17'01 -1604 Jun 11 j 20:05 5°**Ⅱ**14'12 behind sun begin behind sun end 9°×25'45 -1604 Jun 12 j 09:16 5°**Ⅲ**21'33 6.27060 AU behind sun end -1610 Dec 14 j 09:46 max. Earth dist. -1610 Dec 26 j 21:49 12°**尽** 22'25 morning rise morning rise -1604 Jun 25 j 02:53 8°**Ⅱ**11'19 -1609 Mar 30 j 20:46 0°₹ retrograde -1604 Oct 26 j 07:36 25° **I** 58'53 retrograde -1609 May 05 j 08:06 1°**る**55'24 opposition -1604 Dec 25 j 00:11 20°**Ⅲ**59'56 0°32'12 -1609 Jun 09 j 22:04 30°R ⊀ min. Earth dist. -1604 Dec 24 j 18:08 21°**Ⅲ**01'57 4.32435 AU opposition -1609 Jul 05 j 01:24 26°**尽** 57'39 0°-43'-56 direct -1603 Feb 23 j 21:57 15°**I**I56'46 -1609 Jul 05 j 03:11 26°**尽** 57'04 -1603 Jun 12 j 17:31 min. Earth dist. 4.05270 AU 0ಂತಾ

-1603 Jul 01 j 10:44

evening set

4°9500'01

-1609 Sep 02 j 10:34 22° ₹04'16

direct

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1603 in astronomical counting style is the year 1604 BCE in historical counting style. -1603 Jul 14 i 20:19 6°955'41 0°41'13 retrograde -1597 May 10 j 11:57 6°る56'43 conjunction -1603 Jul 14 j 20:17 6°955'40 -1597 Jul 10 j 04:01 1°る58'22 0°-52'-41 minimum elong 0°41'15 opposition -1603 Jul 14 j 14:53 6°952'42 min. Earth dist. -1597 Jul 10 j 02:52 1°る58'45 4.03929 AU max. Earth dist. 6.36874 AU -1603 Jul 28 j 03:09 -1597 Jul 25 j 16:19 30°R*⊀*7 9°9549'52 morning rise -1603 Nov 26 j 02:39 26°557'49 direct -1597 Sep 07 j 08:56 27°**尽** 05'02 retrograde -1602 Jan 25 j 02:19 -1597 Oct 20 j 02:31 opposition 22°**©**02'36 1°22'16 0°ಕ -1602 Jan 25 j 13:53 -1596 Jan 09 j 21:55 min. Earth dist. 21°**©**58'49 4.39999 AU evening set 16°**る**19'25 16°959'17 direct -1602 Mar 28 j 03:50 -1602 Jul 10 j 22:11 $0^{\circ}\Omega$ conjunction -1596 Jan 22 j 22:59 19°**⋜**26'49 0°-53'-37 -1596 Jan 22 j 22:56 19°**궁**26'47 evening set -1602 Aug 02 j 13:05 4°**Ω**46'54 minimum elong 0°53'39 -1596 Jan 23 j 14:51 19°₹36'20 max. Earth dist. -1602 Aug 14 j 09:52 7°**Ω**21'44 6.41529 AU max. Earth dist. 6.00468 AU -1596 Feb 05 j 02:51 morning rise 22°**る**35'52 -1596 Mar 08 j 07:29 conjunction -1602 Aug 15 j 13:58 7°**Ω**37'04 1°08'19 0°≈ minimum elong -1602 Aug 15 j 13:56 7°**Ω**37'03 1°08'20 retrograde -1596 Jun 16 j 05:24 12°≈58'32 morning rise -1602 Aug 28 j 11:41 10°**Ω**25'42 opposition -1596 Aug 15 j 08:48 7°≈56'20 -1°-41'-28 -1602 Sep 19 j 00:34 15°**Ω** min. Earth dist. -1596 Aug 14 j 13:34 8°**≈**02'47 3.98855 AU retrograde -1602 Dec 26 j 15:50 27° **Ω**19'51 direct -1596 Oct 12 j 13:26 3°≈02'34 opposition -1601 Feb 25 j 02:12 22°**Ω**27'14 1°48'43 -1595 Jan 12 j 19:40 15°≈ min. Earth dist. -1601 Feb 26 j 02:59 22° Ω 19'16 4.41608 AU evening set -1595 Feb 14 j 12:27 22°≈30'52 direct -1601 Apr 28 j 17:09 $17^{\circ}\Omega$ 24'59 -1601 Aug 09 j 08:11 0° m conjunction -1595 Feb 27 j 21:01 25°≈42'13 -1°-14'-28 evening set -1601 Sep 02 i 15:34 5° m 10'02 minimum elong -1595 Feb 27 j 21:00 25°≈42'13 1°14'29 max. Earth dist. -1601 Sep 13 j 15:53 7° m 35'03 6.39868 AU max. Earth dist. -1595 Mar 01 i 12:55 26°≈06'04 5.99052 AU morning rise -1595 Mar 13 i 08:57 28°≈55'15 conjunction -1601 Sep 15 i 09:16 7° m 57'51 1°16'18 -1595 Mar 17 j 22:30 0°**)**€ -1601 Sep 15 j 09:17 7° m 57'51 1°16'18 -1595 Jul 23 j 07:54 19°**¥** 18'07 minimum elong retrograde -1601 Sep 28 j 00:16 10° Mp 44'28 -1595 Sep 19 j 18:46 14° \(\)23'56 4.01425 AU morning rise min. Earth dist. -1600 Jan 27 j 00:17 27° m 51'32 -1595 Sep 21 j 01:57 14° \(\)13'20 -1°-51'-4 retrograde opposition -1600 Mar 27 j 19:19 22° m 59'56 1°45'29 -1595 Nov 18 j 00:20 9°**₩**17'11 opposition direct -1600 Mar 29 j 03:48 22° m 49'36 4.36841 AU -1594 Mar 23 j 19:03 28°\mathbf{\psi}37'47 min. Earth dist. evening set -1600 May 29 j 09:31 17° m 59'48 -1594 Mar 29 j 15:52 $0^{\circ}\Upsilon$ direct -1600 Sep 05 j 01:42 0∘ಹ 1°**Υ**49'27 -1°-6'-46 -1600 Oct 02 j 12:37 -1594 Apr 06 j 10:41 evening set 5°**2**55'21 conjunction -1594 Apr 06 j 10:44 max. Earth dist. -1600 Oct 13 j 05:14 8°**₽**19'06 1°**Υ**49'28 1°06'46 6.32307 AU minimum elong -1594 Apr 08 j 12:38 2°Υ18'43 6.05304 AU max. Earth dist. -1600 Oct 15 j 02:43 8°**△**44'40 1°02'55 -1594 Apr 20 j 04:33 5°**Y**′02′03 conjunction morning rise -1600 Oct 15 j 02:46 -1594 Aug 27 j 18:53 24°**Y**42'19 minimum elong 8°**º**44'42 1°02'55 retrograde morning rise -1600 Oct 27 j 15:34 11°**△**33'30 min. Earth dist. -1594 Oct 25 j 00:54 19°**Υ**47'35 4.10647 AU retrograde -1599 Feb 27 j 21:12 29°**△**18'04 opposition -1594 Oct 26 j 06:33 19°**Y**37'27 -1°-18'-47 opposition -1599 Apr 29 j 21:25 24°**£**25'40 1°11'41 direct -1594 Dec 23 j 21:33 14°**Υ**38'07 min. Earth dist. -1599 May 01 j 03:45 24°**2**16'00 4.26896 AU -1593 Apr 13 j 13:45 0°8 -1599 Jun 30 j 17:42 19°**2**28'09 -1593 Apr 29 j 10:49 3°**8**33'07 direct evening set -1599 Sep 28 j 11:47 -1599 Nov 03 j 00:57 -1593 May 13 j 05:38 6°841'07 0°-34'-59 evening set 7°M45'51 conjunction max. Earth dist. -1599 Nov 14 j 05:25 10°M20'14 6.20834 AU -1593 May 13 j 05:41 6°**8**41'09 0°34'59 minimum elong max. Earth dist. -1593 May 14 j 23:16 7°**8**04'49 6.16716 AU -1599 Nov 15 j 15:50 10°M40'06 0°30'26 -1593 May 27 i 00:35 conjunction morning rise 9°**8**48'59 -1599 Nov 15 j 15:51 10°ML40'07 minimum elong 0°30'25 -1593 Jun 19 i 12:33 15°8 -1599 Nov 28 i 06:40 13°M 34'38 morning rise retrograde -1593 Sep 30 j 01:04 28° 825'42 opposition -1599 Dec 04 i 12:08 15°ML -1593 Nov 28 i 13:43 23°823'25 0°-21'-4 -1598 Feb 24 j 01:34 min. Earth dist. -1593 Nov 27 j 17:50 23°\(\mathbf{2}30'08\) 4.22993 AU 0°×7 -1598 Apr 03 j 18:05 2°×715'11 direct -1592 Jan 27 j 08:25 18°**8**21'28 retrograde -1598 May 12 j 19:35 30°RML -1592 Apr 09 j 13:24 25°**8**44'07 asc. node opposition -1598 Jun 03 j 17:32 27°M20'28 0°13'29 -1592 May 01 j 21:20 $\Pi^{\circ}0$ min. Earth dist. -1598 Jun 04 j 12:01 27°ML14'31 4.14600 AU evening set -1592 Jun 02 j 14:03 6°**Ⅱ**45'26 -1598 Aug 03 j 07:59 22°M25'37 direct desc. node -1598 Aug 23 j 19:52 23°M 05'46 conjunction -1592 Jun 16 j 05:50 9°**II**46'56 0°07'18 -1598 Oct 15 j 04:44 -1592 Jun 16 j 05:49 9°**Ⅱ**46'56 0°07'19 0°**√** minimum elong -1598 Dec 06 j 00:18 11° ₹ 12'27 -1592 Jun 15 j 22:15 9°**Ⅱ**42'45 evening set behind sun begin -1592 Jun 16 j 13:23 9°**I**51′06 behind sun end -1598 Dec 18 j 18:55 14° ₹ 13'25 0°-13'-12 -1592 Jun 16 j 22:58 9°**I**56'26 6.29045 AU conjunction max. Earth dist. minimum elong -1598 Dec 18 j 18:54 14° ₹ 13'25 0°13'15 morning rise -1592 Jun 29 j 20:02 12°**Ⅲ**47'23 behind sun begin -1598 Dec 18 j 14:05 14° ₹ 10'35 -1592 Oct 14 j 02:03 0ಂಣ behind sun end -1598 Dec 18 j 23:43 14° ₹ 16'15 retrograde -1592 Oct 30 j 15:06 0°926'33 max. Earth dist. -1598 Dec 18 j 04:48 14° ₹ 05'05 6.08841 AU -1592 Nov 16 j 00:34 30°RⅡ -1598 Dec 31 j 15:28 17° ₹ 15'34 -1592 Dec 29 j 08:21 25°**Д**28'05 0°40'04 morning rise opposition -1597 Mar 01 j 06:55 min. Earth dist. -1592 Dec 29 j 05:28 25°**Д**29'02 4.34232 AU

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1591 in astronomical counting style is the year 1592 BCE in historical counting style. -1591 Feb 28 j 12:03 20°**Д**24'45 direct desc. node -1586 Jul 04 j 22:09 28°M 59'53 -1586 Aug 08 j 00:37 27°M12'33 -1591 May 26 j 04:26 direct 000 -1591 Jul 05 j 22:16 -1586 Sep 19 j 11:39 8°923'20 0°×7 evening set -1586 Dec 10 j 17:36 16° ₹ 06'00 evening set conjunction -1591 Jul 19 j 06:44 11°5517'55 0°45'49 -1586 Dec 23 j 13:16 19°**尽**08'18 0°-19'-20 -1591 Jul 19 j 06:41 11°517'53 minimum elong 0°45'51 conjunction -1586 Dec 23 j 13:15 19°**₰** 08'17 -1591 Jul 18 j 22:36 11°5513'29 max. Earth dist. 6.38332 AU minimum elong 0°19'22 -1586 Dec 23 j 04:12 19°**尽** 02'55 morning rise -1591 Aug 01 j 12:07 14°510'56 max. Earth dist. 6.06760 AU -1585 Jan 05 j 10:43 22° ₹ 11'48 -1591 Nov 02 j 04:05 $0^{\circ}\Omega$ morning rise retrograde -1591 Nov 30 j 04:34 1°**Ω**13'54 -1585 Feb 08 j 20:00 0°궁 -1591 Dec 28 j 04:38 30°Rூ retrograde -1585 May 15 j 20:04 12°**る**02'54 -1585 Jul 15 j 08:35 opposition -1590 Jan 29 j 07:23 26°519'04 1°27'20 opposition 7°**る**04'04 -1°-1'-6 -1585 Jul 15 j 05:10 min. Earth dist. -1590 Jan 29 j 20:25 26°514'49 4.41031 AU min. Earth dist. 7°る05'12 4.02247 AU direct -1590 Apr 01 j 11:03 21°515'47 direct -1585 Sep 12 j 08:44 2°る10'52 -1590 Jun 23 j 10:43 $0^{\circ}\Omega$ evening set -1584 Jan 14 j 23:49 21°₹30'25 evening set -1590 Aug 06 j 19:11 9°**Ω**00'49 max. Earth dist. -1590 Aug 18 j 11:43 11°**Ω**33'19 6.42038 AU conjunction -1584 Jan 28 j 01:52 24° ₹38'49 0°-58'00 minimum elong -1584 Jan 28 j 01:49 24°₹38'47 0°58'03 conjunction -1590 Aug 19 j 18:49 11° Ω 50'16 1°10'33 max. Earth dist. -1584 Jan 28 j 21:06 24°る50'22 5.99326 AU minimum elong -1590 Aug 19 j 18:47 $11^{\circ}\Omega$ 50'15 morning rise -1584 Feb 10 j 07:09 27°る48'57 morning rise -1590 Sep 01 j 15:23 $14^{\circ}\Omega 38'14$ -1584 Feb 19 j 12:24 0°≈ -1590 Sep 03 i 07:37 15°Ω -1584 May 06 i 05:13 15°≈ -1590 Nov 29 i 07:18 retrograde -1584 Jun 21 j 12:46 18°≈16'13 0° m retrograde -1590 Dec 30 i 20:05 1° m 31'35 -1584 Aug 07 i 03:19 15°R≈ -1589 Jan 31 j 10:07 30°RΩ opposition -1584 Aug 20 j 15:23 13°≈13'30 -1°-45'-27 -1589 Mar 01 j 07:21 $26^{\circ}\Omega 39'14$ $1^{\circ}49'59$ min. Earth dist. -1584 Aug 19 j 16:24 13°≈21'13 3.98410 AU opposition -1589 Mar 02 j 10:51 $26^{\circ}\Omega$ 30'24 4.41557 AU -1584 Oct 17 j 16:31 min Earth dist direct 8°≈19'32 -1589 May 03 j 00:36 $21^{\circ}\Omega$ 37'10 -1584 Dec 22 j 17:34 15°≈ direct -1589 Jul 22 j 22:07 0° M -1583 Feb 19 j 19:39 27°≈49'08 evening set -1589 Sep 06 j 19:01 -1583 Feb 28 j 23:27 0°**∀** evening set 9° m 22'19 -1589 Sep 17 j 15:31 11° mp 45'32 6.39232 AU max. Earth dist. -1583 Mar 05 j 05:23 1°**升**00'53 -1°-15'-6 conjunction -1589 Sep 19 j 12:00 12° mp 10'05 1°15'41 -1583 Mar 05 j 05:23 conjunction minimum elong 1°**∺**00'52 1°15'07 1°**¥**26'53 5.99323 AU -1589 Sep 19 j 12:01 12° mp 10'05 1°15'42 -1583 Mar 07 j 00:57 minimum elong max. Earth dist. -1589 Oct 02 j 02:32 14° m 56'45 -1583 Mar 18 j 18:16 4°**)** 14'12 morning rise morning rise -1589 Dec 24 j 18:42 0°**♀** -1583 Jul 28 j 13:06 24° **★** 33'43 retrograde -1588 Jan 31 j 07:37 -1583 Sep 24 j 21:45 19° **∺** 39'23 4.02359 AU retrograde 2°**♀**07'31 min. Earth dist. -1588 Mar 09 j 05:54 30°R Mp opposition -1583 Sep 26 j 05:12 19° **∺** 28'39 -1°-48'-43 opposition -1588 Apr 01 j 03:43 27° m 15'53 1°42'37 direct -1583 Nov 23 j 05:54 14° **∺** 32'02 min. Earth dist. -1588 Apr 02 j 12:45 27° m 05'22 4.35655 AU -1582 Mar 12 j 09:25 $0^{\circ}\Upsilon$ direct -1588 Jun 02 j 15:52 22° Mp 16'00 evening set -1582 Mar 29 j 02:01 3°Y49'35 -1588 Aug 18 j 03:56 0°**♀** -1588 Oct 06 j 16:58 10° £ 14'34 -1582 Apr 11 j 18:27 7°**Υ**'00'55 -1°-3'-24 evening set conjunction max. Earth dist. -1588 Oct 17 j 10:37 12°**2**39'24 -1582 Apr 11 j 18:30 7°Υ00'57 1°03'24 6.30663 AU minimum elong -1582 Apr 13 j 22:00 7°**Υ**31'00 6.06786 AU max. Earth dist. -1582 Apr 25 j 12:45 10° Υ 13'02 conjunction -1588 Oct 19 i 07:07 13° **2**04'31 0°59'32 morning rise minimum elong -1588 Oct 19 i 07:10 13°**2**04'33 0°59'30 retrograde -1582 Sep 01 i 14:49 29° \bar{\gamma}44'10 morning rise -1588 Oct 31 i 19:55 15° **2**54'03 min. Earth dist. -1582 Oct 29 j 21:17 24° γ 49'35 4.12481 AU -1582 Oct 31 j 02:49 24°**Y**39'31 -1°-11'-33 -1587 Jan 12 j 16:30 0°M opposition -1587 Mar 04 i 12:06 3°M46'29 direct -1582 Dec 28 j 20:22 19° γ 39'44 retrograde -1587 Apr 25 j 18:39 30°R ₽ -1581 Mar 26 j 03:11 0°8 -1587 May 04 j 12:03 28° **2**53'55 1°05'00 -1581 May 04 j 12:52 8°**8**29'33 opposition evening set -1587 May 05 j 18:14 28° **△**44'18 4.24877 AU min. Earth dist. -1587 Jul 05 j 04:49 23°**2**56'49 -1581 May 18 j 07:26 11°**8**36'37 0°-29'-16 direct conjunction -1587 Sep 08 j 18:19 minimum elong -1581 May 18 j 07:28 11°**8**36'38 0°29'15 -1581 May 19 j 21:03 11°**8**57'56 -1587 Nov 07 j 10:22 12°M 19'54 max. Earth dist. 6.18719 AU evening set -1587 Nov 18 j 23:14 15°ML morning rise -1581 Jun 01 j 02:08 14°**8**43'26 max. Earth dist. -1587 Nov 18 j 15:24 14° ML55'27 6.18610 AU -1581 Jun 02 j 07:39 15°**8** -1581 Aug 20 j 03:13 $0^{\circ}\Pi$ -1587 Nov 20 j 01:33 15°M 15'15 0°24'54 -1581 Oct 04 j 14:02 conjunction retrograde 3°**Ⅱ**10′24 minimum elong -1587 Nov 20 j 01:34 15°M 15'16 0°24'53 -1581 Nov 19 j 00:38 30°R**8** morning rise -1587 Dec 02 j 17:14 18°ML11'04 min. Earth dist. -1581 Dec 02 j 10:18 28°814'19 4.24953 AU -1586 Jan 27 j 17:28 0°**∡**¹ opposition -1581 Dec 03 j 03:23 28°**8**08'33 0°-12'-8 retrograde -1586 Apr 08 j 17:17 7°**х** 02′16 direct -1580 Feb 01 j 03:52 23°**8**06'17 opposition -1586 Jun 08 j 15:40 2°**₹**07'07 0°04'24 asc. node -1580 Feb 17 j 21:26 23°**8**33'06 min. Earth dist. -1586 Jun 09 j 07:30 2°**✗**'02'00 4.12336 AU -1580 Apr 11 j 19:10 0°**Ⅱ**

-1580 Jun 07 j 09:00 11°**Ⅲ**25'19

evening set

-1586 Jun 25 j 15:39 30°RML

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1580 in astronomical counting style is the year 1581 BCE in historical counting style. -1580 Jun 21 j 00:04 14°**Д**25'44 0°13'14 evening set -1575 Nov 12 j 00:35 17° ML06'25 conjunction max. Earth dist. -1580 Jun 21 j 00:03 14°**II**25'43 -1575 Nov 23 j 10:25 19°M 45'22 6.16717 AU minimum elong 0°13'15 -1580 Jun 20 j 19:24 14°**Д**23'10 behind sun begin -1580 Jun 21 j 04:42 14°**Ⅲ**28'17 -1575 Nov 24 j 16:21 20°Ml02'48 behind sun end conjunction 0°18'56 -1580 Jun 21 j 14:52 14°**Д**33'54 6.30814 AU -1575 Nov 24 j 16:23 20°M 02'48 max. Earth dist. minimum elong 0°18'55 -1580 Jul 04 j 13:00 17°**Ⅲ**24'57 -1575 Dec 07 j 08:36 22°M 59'42 morning rise morning rise -1574 Jan 07 j 16:37 -1580 Sep 06 j 19:42 0ಂಲ 0°**∡** -1574 Apr 13 j 22:09 retrograde -1580 Nov 03 j 21:43 4°956'54 retrograde 12°**₹**00'06 opposition -1579 Jan 02 j 17:17 29°**Ⅱ**59'00 0°47'52 desc. node -1574 May 14 j 06:57 10°**х** 35′29 -1574 Jun 13 j 18:18 0°-5'-7 -1579 Jan 02 j 14:17 30°Ŗ**Ⅱ** opposition 7°**҂**04'32 min. Earth dist. -1579 Jan 02 j 16:08 29°**Ⅲ**59'23 4.35689 AU min. Earth dist. -1574 Jun 14 j 08:11 7°**∡**00'03 4.10606 AU direct -1579 Mar 05 j 00:29 24°**I**55'38 direct -1574 Aug 12 j 22:56 2°**∡**10′19 -1574 Dec 15 j 14:33 21° ₹ 08'06 -1579 May 04 j 16:35 0 \circ \odot evening set evening set -1579 Jul 10 j 11:19 12°550'59 conjunction -1574 Dec 28 j 10:53 24° ₹ 11'20 0°-25'-31 conjunction -1579 Jul 23 j 18:22 15°544'37 0°50'18 minimum elong -1574 Dec 28 j 10:51 24° ₹ 11'19 0°25'33 minimum elong -1579 Jul 23 j 18:19 15°544'35 0°50'19 max. Earth dist. -1574 Dec 28 j 05:04 24°**尽** 07'52 6.05366 AU max. Earth dist. -1579 Jul 23 j 05:13 15°537'27 6.39355 AU morning rise -1573 Jan 10 j 09:30 27° **₹** 15'55 morning rise -1579 Aug 05 j 22:34 18°536'43 -1573 Jan 22 j 01:24 -1579 Oct 02 j 21:58 $0^{\circ}\Omega$ retrograde -1573 May 21 j 02:18 17°る13'54 retrograde -1579 Dec 04 j 11:35 5°**Ω**36'19 opposition -1573 Jul 20 j 14:49 12°る14'28 -1°-9'-14 opposition -1578 Feb 02 i 14:51 0°Ω41'56 1°32'09 min. Earth dist. -1573 Jul 20 j 07:06 12°る17'00 4.01367 AU min. Earth dist. -1578 Feb 03 i 07:18 0°**Ω**36'35 4.41580 AU direct -1573 Sep 17 i 09:59 7°る21'18 -1578 Feb 08 i 00:14 30°RS evening set -1572 Jan 20 j 02:47 26°정42'55 direct -1578 Apr 05 j 22:46 25°538'42 -1578 Jun 01 j 06:51 $0^{\circ}\Omega$ -1572 Feb 02 j 05:53 29°る51'52 -1°-1'-59 conjunction -1578 Aug 11 j 03:54 13° Ω22'45 -1572 Feb 02j05:50 29°る51'50 1°02'01 minimum elong evening set -1578 Aug 18 j 14:58 $15^{\circ}\Omega$ -1572 Feb 02 j 19:25 0°≈ max. Earth dist. -1578 Aug 22 j 17:12 15° **Ω**53'34 6.42054 AU -1572 Feb 03 j 06:08 0°≈06′26 5.99037 AU max. Earth dist. -1572 Feb 15 j 12:05 morning rise 3°≈02'32 -1578 Aug 24 j 02:35 $16^{\circ}\Omega$ 11'46 1° 12'31 -1572 Apr 09 j 17:35 15°≈ conjunction -1572 Jun 26 j 19:37 23°≈30'34 -1578 Aug 24 j 02:33 $16^{\circ}\Omega$ 11'45 1° 12'32 minimum elong retrograde -1572 Aug 25 j 20:24 18°≈27'21 -1578 Sep 05 j 22:01 18°**Ω**59'18 -1°-48'-32 morning rise opposition -1578 Oct 31 j 14:50 min. Earth dist. -1572 Aug 24 j 20:06 18°≈35'33 3.98758 AU 0° m -1577 Jan 04 j 02:43 5° m 53'30 -1572 Sep 23 j 11:15 15°R≈ retrograde -1577 Mar 05 j 16:25 1°M01'19 1°50'48 -1572 Oct 22 j 21:42 13°≈33'04 opposition direct -1577 Mar 06 j 20:34 0° m 52'18 4.41068 AU -1572 Nov 21 j 05:17 15°≈ min. Earth dist. -1577 Mar 13 j 17:11 30°RΩ -1571 Feb 12 j 04:09 0°**)**€ direct -1577 May 07 j 09:10 25°**Ω**59'28 evening set -1571 Feb 25 j 00:57 3°**)**€01'06 -1577 Jun 30 j 06:56 0° Mp evening set -1577 Sep 11 j 02:27 13° Mp 45'55 conjunction -1571 Mar 10 j 11:44 6°¥12'52 -1°-15'-8 max. Earth dist. -1577 Sep 21 j 21:40 16° mp 08'49 -1571 Mar 10 j 11:44 6°¥12'53 1°15'10 6.38268 AU minimum elong max. Earth dist. -1571 Mar 12 j 10:24 6°¥40'38 6.00255 AU -1577 Sep 23 j 18:46 16° m 33'47 -1571 Mar 24 j 01:30 9°**)** €26'08 conjunction morning rise -1577 Sep 23 j 18:47 16° mp 33'48 -1571 Aug 02 j 13:01 29°**₭**39'32 minimum elong retrograde -1577 Oct 06 i 08:47 19° m 20'39 -1571 Sep 29 i 20:18 24° \(\frac{1}{4}\)45'21 4.03777 AU morning rise min. Earth dist. -1571 Oct 01 i 04:32 24° + 34'22 -1°-45'-35 -1577 Nov 28 i 00:53 opposition retrograde -1576 Feb 04 i 20:59 6°**£**36′10 direct -1571 Nov 28 i 06:02 19°**)** 37'19 opposition -1576 Apr 05 i 17:24 1°**2**44'32 1°39'05 -1570 Feb 22 i 04:29 $0^{\circ}\Upsilon$ min. Earth dist. -1576 Apr 07 j 03:32 1°**2**33'41 4.34265 AU -1570 Apr 03 j 05:01 8°Y50'29 evening set -1576 Apr 19 j 16:52 30°R Mg conjunction direct -1576 Jun 07 j 04:39 26° m 45'00 -1570 Apr 16 j 21:52 12°**Υ**'01'15 0°-59'-41 -1576 Jul 24 j 20:51 -1570 Apr 16 j 21:55 12° **Y** 01'16 0∘⊽ minimum elong 0°59'42 -1570 Apr 18 j 22:59 12°**Υ**29'47 evening set -1576 Oct 11 j 02:20 14° **Ω** 46'53 max. Earth dist. 6.08538 AU -1570 Apr 30 j 16:38 15°**Υ**12'42 max. Earth dist. -1576 Oct 21 j 19:23 17°**£**12'00 6.28963 AU morning rise -1570 Jul 13 j 02:17 0°8 conjunction -1576 Oct 23 j 16:24 17°**Ω**37'30 0°55'37 retrograde -1570 Sep 06 j 06:13 4°**8**34'23 -1576 Oct 23 j 16:27 17°**2**37'32 0°55'37 -1570 Nov 01 j 02:44 30°R**Y** minimum elong -1570 Nov 04 j 18:54 29°**Y**29'58 -1°-4'-6 -1576 Nov 05 j 05:30 20°**£**27'50 morning rise opposition min. Earth dist. -1570 Nov 03 j 15:05 29°**Y**39'28 4.14362 AU -1576 Dec 20 j 07:45 0°M -1569 Jan 02 j 16:47 24°**Y**29'46 retrograde -1575 Mar 09 j 07:26 8°M28'13 direct opposition -1575 May 09 j 07:56 3°M35'21 0°57'32 -1569 Mar 04 j 19:19 0° 8 min. Earth dist. -1575 May 10 j 12:01 3°M26'24 4.22984 AU evening set -1569 May 09 j 10:24 13°**8**14'37 -1575 Jun 09 j 21:14 30°R € -1569 May 17 j 05:45 15°**8** direct -1575 Jul 09 j 20:01 28°**£**38'36 -1575 Aug 08 j 15:14 -1569 May 23 j 04:57 16°\(\mathbf{2}20'49\) 0°-23'-33 conjunction -1575 Nov 02 j 19:54 15°M -1569 May 23 j 04:59 16°**8**20'50 0°23'32 minimum elong

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1569 in astronomical counting style is the year 1570 BCE in historical counting style. opposition -1569 May 24 j 16:35 16°**8**40'56 6.20594 AU -1563 May 14 j 05:21 8°M20'06 0°49'36 max. Earth dist. 8°M11'26 4.21303 AU -1569 Jun 05 j 22:59 19°**8**26'35 min. Earth dist. -1563 May 15 j 08:28 morning rise -1569 Jul 26 j 16:49 -1563 Jul 14 j 14:22 3°M23'46 0°П direct -1569 Oct 08 j 23:32 7°**Ⅱ**44'47 -1563 Oct 16 j 15:10 15°M retrograde -1563 Nov 16 j 15:23 21°ML55'15 -1569 Dec 07 j 13:20 2°**II**43'33 0°-3'-27 opposition evening set -1569 Dec 06 j 22:25 -1563 Nov 28 j 04:03 24°M 36'25 min. Earth dist. 2°**Ⅱ**48'34 4.26646 AU max. Earth dist. 6.15133 AU asc. node -1569 Dec 29 j 12:27 29°856'49 -1563 Nov 29 j 07:35 24°M 52'29 -1569 Dec 29 j 01:00 30°Ŗ**႘** conjunction 0°12'50 -1563 Nov 29 j 07:35 24°M52'30 direct -1568 Feb 05 j 18:04 27°**8**41'06 minimum elong 0°12'47 -1568 Mar 15 j 22:35 Π $^{\circ}0$ behind sun begin -1563 Nov 29 j 02:28 24°M49'31 evening set -1568 Jun 12 j 00:48 15°**Ⅲ**56'25 behind sun end -1563 Nov 29 j 12:43 24°M 55'28 -1563 Dec 12 j 00:37 27°M50'23 morning rise -1563 Dec 21 j 09:21 conjunction -1568 Jun 25 j 14:49 18°**Ⅲ**55'52 0°18'54 0°**∡**¹ -1568 Jun 25 j 14:48 18°**Д**55'51 minimum elong 0°18'56 desc. node -1562 Mar 23 j 19:51 15°**х** 55′03 max. Earth dist. -1568 Jun 25 j 23:59 19°**Ⅲ**00'54 6.32192 AU retrograde -1562 Apr 18 j 23:59 16°**х** 58'42 opposition morning rise -1568 Jul 09 j 02:52 21°**II**54'07 -1562 Jun 18 j 20:35 12°**尽** 02'37 0°-14'-38 -1568 Aug 16 j 23:18 0ಂತಾ min. Earth dist. -1562 Jun 19 j 06:34 11°**х** 59'23 4.09251 AU 7°**х**¹08'38 retrograde -1568 Nov 08 j 04:08 9°9520'37 direct -1562 Aug 17 j 19:18 opposition -1567 Jan 07 j 00:12 4°9523'17 0°55'10 evening set -1562 Dec 20 j 11:07 26° ₹09'31 min. Earth dist. -1567 Jan 07 j 02:15 4°9522'36 4.36676 AU -1567 Feb 16 j 16:31 30°RII conjunction -1561 Jan 02 j 08:16 29° ₹ 13'31 0°-31'-30 direct -1567 Mar 09 j 11:48 29° **II** 19'51 minimum elong -1561 Jan 02 j 08:13 29° ₹13'30 0°31'33 -1567 Mar 30 j 11:41 0ಂತಾ max. Earth dist. -1561 Jan 02 i 07:17 29° ₹ 12'56 6.04350 AU evening set -1567 Jul 14 j 22:05 17°513'38 -1561 Jan 05 i 14:08 0°궁 morning rise -1561 Jan 15 j 07:42 2°る18'56 -1567 Jul 28 j 04:10 20°506'36 0°54'23 -1561 May 26 j 08:35 22°る22'15 conjunction retrograde -1567 Jul 28 j 04:07 20°506'34 0°54'24 opposition -1561 Jul 25 j 19:21 17°**♂**22'13 -1°-16'-45 minimum elong -1567 Jul 27 j 12:49 19°558'14 -1561 Jul 25 j 09:44 17°**궁**25'24 4.00791 AU max. Earth dist. 6.39878 AU min. Earth dist. -1567 Aug 10 j 06:59 22°557'58 -1561 Sep 22 j 12:29 12°₹29'00 morning rise direct -1567 Sep 13 j 02:16 0°**Ω** -1560 Jan 17 j 07:53 0°≈ -1567 Dec 08 j 16:30 -1560 Jan 25 j 04:14 retrograde 9°Ω56'10 evening set 1°≈51'48 -1566 Feb 06 j 21:47 5°**Ω**02'13 1°36'23 opposition 5°≈01'14 -1°-5'-28 -1566 Feb $\,$ 07 j 15:29 $\,$ 4° Ω 56'29 $\,$ 4.41640 AU -1560 Feb 07 j 08:20 min. Earth dist. conjunction -1566 Apr 07 j 08:07 30°Rூ -1560 Feb 07 j 08:17 minimum elong 5°≈01'13 1°05'30 -1566 Apr 10 j 06:47 29°559'13 -1560 Feb 08 j 12:27 direct max. Earth dist. 5°≈18'06 5.98935 AU -1566 Apr 13 j 05:27 0°**Ω** -1560 Feb 20 j 15:37 morning rise 8°≈12'24 -1566 Aug 02 j 18:30 15°**Ω** -1560 Mar 21 j 01:20 15°≈ evening set -1566 Aug 15 j 12:14 17°**Ω**43'47 retrograde -1560 Jul 01 j 23:48 28°≈40'20 max. Earth dist. -1566 Aug 26 j 21:06 $20^{\circ}\Omega$ 12'31 6.41635 AU opposition -1560 Aug 30 j 23:00 23°≈36'44 -1°-50'-46 min. Earth dist. -1560 Aug 29 j 20:43 23°≈45'36 3.99177 AU conjunction -1566 Aug 28 j 09:44 20°**Ω**32'32 1°14'02 direct -1560 Oct 27 j 22:32 18°≈42'09 -1566 Aug 28 j 09:43 20°**Ω**32'32 -1559 Jan 25 j 07:46 0°) minimum elong -1566 Sep 10 j 04:23 23°**Ω**19'53 -1559 Mar 02 j 04:30 8°**)**€08'44 morning rise evening set -1566 Oct 12 j 00:32 0° Mp -1565 Jan 08 j 12:51 10° Mp 16'27 -1559 Mar 15 j 16:06 11° **★** 20'30 -1°-14'-38 retrograde conjunction -1565 Mar 10 i 02:27 -1559 Mar 15 j 16:07 11°\(\mathbf{2}\)0'30 1°14'39 opposition 5° m 24'31 minimum elong -1559 Mar 17 j 14:40 11° **\(\)** 48'07 6.01125 AU min. Earth dist. -1565 Mar 11 i 08:39 5° m 14'51 4.40218 AU max. Earth dist. -1559 Mar 29 i 06:49 14° **)** 33'42 direct -1565 May 11 j 20:10 0° m 22'59 morning rise evening set -1565 Sep 15 j 10:31 18° mp 11'45 -1559 Jun 12 j 12:00 max. Earth dist. -1565 Sep 26 j 04:58 20° m 34'40 6.37054 AU -1559 Aug 07 i 09:56 4°Υ41'29 retrograde -1559 Oct 03 j 04:06 30°R € -1565 Sep 28 j 02:26 20° mp 59'54 1°13'12 min. Earth dist. -1559 Oct 04 j 17:43 29°\ 47'10 4.05001 AU conjunction -1565 Sep 28 j 02:27 20° mp 59'55 -1559 Oct 06 j 01:48 29° \(\) 36'13 -1°-41'-47 minimum elong 1°13'12 opposition -1565 Oct 10 j 16:02 23° m 47'06 morning rise direct -1559 Dec 03 j 05:28 24° \(\mathbf{H}\) 38'40 $0^{\circ}\Upsilon$ -1565 Nov 08 j 17:42 0∘ಹ -1558 Jan 31 j 09:06 retrograde -1564 Feb 09 j 10:23 11°**£**08'12 evening set -1558 Apr 08 j 06:44 13°**Y**48'27 opposition -1564 Apr 10 j 08:27 6°**≏**16'31 1°34'52 -1558 Apr 22 j 00:17 16° **Y** 58'49 0° -55'-36 min. Earth dist. -1564 Apr 11 j 17:09 6°**ഫ**06'06 4.32778 AU conjunction -1564 Jun 11 j 16:09 -1558 Apr 22 j 00:21 16°**Υ**58'51 direct 1°**£**17′24 minimum elong 0°55'37 -1564 Oct 15 j 12:42 19° 22'44 -1558 Apr 24 j 01:20 17°**Υ**27'12 evening set max. Earth dist. 6.10025 AU -1564 Oct 26 j 08:18 21°**-**49'51 6.27333 AU -1558 May 05 j 19:09 20°**Y**09'40 max. Earth dist. morning rise -1558 Jun 20 j 08:00 0° 8 conjunction -1564 Oct 28 j 02:47 22° **2**14'01 0°51'19 retrograde -1558 Sep 10 j 22:23 9°**8**22'55 minimum elong -1564 Oct 28 j 02:50 22°**£**14'03 0°51'18 min. Earth dist. -1558 Nov 08 j 08:03 4°**8**27'42 4.15944 AU morning rise -1564 Nov 09 j 16:04 25°**೨**05'07 opposition -1558 Nov 09 j 10:02 4°**8**18'51 0°-56'-19 -1564 Dec 01 j 20:49 -1558 Dec 18 j 00:58 30°R℃ retrograde -1563 Mar 14 j 06:04 13°M 13'13 direct -1557 Jan 07 j 12:06 29°**Y**18'16

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 31

•	ical year style is used: Th		•	· / /			
Treesier, actionom	-1557 Jan 28 j 03:38		m usu onomeur eo	retrograde	-1551 Mar 19 j 01:00		
	-1557 Apr 30 j 19:50				-1551 May 03 j 05:51		
evening set	-1557 May 14 j 07:47			opposition	-1551 May 19 j 01:46		0°41'26
Ü	, ,	_		min. Earth dist.	-1551 May 20 j 02:01		4.20046 AU
conjunction	-1557 May 28 j 01:58	21° 8 04'40	0°-17'-41	direct	-1551 Jul 19 j 05:51	8°ML06'13	
minimum elong	-1557 May 28 j 01:59				-1551 Sep 27 j 03:04		
max. Earth dist.	-1557 May 29 j 09:21	21° 8 22'19	6.22138 AU	evening set	-1551 Nov 21 j 05:08		
morning rise	-1557 Jun 10 j 19:39	24° 8 09'34					
	-1557 Jul 07 j 17:43	Π $^{\circ}0$		conjunction	-1551 Dec 03 j 21:43	29°M37'56	0°06'45
retrograde	-1557 Oct 13 j 08:58	12° Ⅱ 20′14		minimum elong	-1551 Dec 03 j 21:44	29°M37'57	0°06'44
asc. node	-1557 Nov 08 j 17:28	11° Ⅱ 12'27		behind sun begin	-1551 Dec 03 j 14:15	29°M33'35	
opposition	-1557 Dec 11 j 23:44	7° Ⅱ 19'28	0°05'14	behind sun end	-1551 Dec 04 j 05:13	29°M42'19	
min. Earth dist.	-1557 Dec 11 j 10:58	7° Ⅱ 23'45	4.28025 AU	max. Earth dist.	-1551 Dec 02 j 21:41	29°M23'52	6.13972 AU
direct	-1556 Feb 10 j 08:39	2° Ⅱ 16'44			-1551 Dec 05 j 11:22	0° ∡ ¹	
evening set	-1556 Jun 16 j 16:51	20° Ⅱ 29'13		morning rise	-1551 Dec 16 j 15:23	2° ∡ ³36'38	
				desc. node	-1550 Feb 01 j 16:35	12° ₹ 52'05	
conjunction	-1556 Jun 30 j 06:04	23° Ⅱ 27'50	0°24'31	retrograde	-1550 Apr 24 j 01:38	21° ₹ '51'26	
minimum elong	-1556 Jun 30 j 06:02	23° Ⅱ 27'49	0°24'33	opposition	-1550 Jun 23 j 20:50	16° ∡ 754'51	0°-23'-49
max. Earth dist.	-1556 Jun 30 j 12:32		6.33310 AU	min. Earth dist.	-1550 Jun 24 j 05:08	16° ₹ 52'09	4.08263 AU
morning rise	-1556 Jul 13 j 16:50	26° Ⅱ 25'07		direct	-1550 Aug 22 j 16:43	12° 渘 '01'04	
	-1556 Jul 30 j 07:59	0 \circ \odot			-1550 Dec 20 j 17:13	0°ರ	
retrograde	-1556 Nov 12 j 11:33	13° 5 47'00		evening set	-1550 Dec 25 j 05:20	1°る03'55	
opposition	-1555 Jan 11 j 08:18	8° 9 50'13	1°02'16				
min. Earth dist.	-1555 Jan 11 j 12:31	8°9548'50	4.37465 AU	conjunction	-1549 Jan 07 j 03:16	4° る 08'35	0°-37'-6
direct	-1555 Mar 13 j 23:14	3° 5 346'48		minimum elong	-1549 Jan 07 j 03:14	4° る 08'33	0°37'09
evening set	-1555 Jul 19 j 10:07	21° © 39'19		max. Earth dist.	-1549 Jan 07 j 05:56	4° ට 10'11	6.03623 AU
				morning rise	-1549 Jan 20 j 03:40	7° る 14'43	
conjunction	-1555 Aug 01 j 14:52	24° © 31'37	0°58'15	retrograde	-1549 May 31 j 10:46	27° පි 22'11	
minimum elong	-1555 Aug 01 j 14:49	24°931'36	0°58'15	opposition	-1549 Jul 30 j 20:28		-1°-23'-29
max. Earth dist.	-1555 Jul 31 j 19:05		6.40268 AU	min. Earth dist.	-1549 Jul 30 j 08:18		4.00426 AU
morning rise	-1555 Aug 14 j 16:37			direct	-1549 Sep 27 j 09:54		
Č	-1555 Aug 26 j 22:28	$0^{\circ}\Omega$			-1549 Dec 31 j 10:19	0° ≈	
retrograde	-1555 Dec 13 j 00:47			evening set	-1548 Jan 30 j 02:54	6° ≈ 52'07	
opposition	-1554 Feb 11 i 06:25	9° Ω 25'51	1°40'12	· ·	,		
min. Earth dist.	-1554 Feb 12 j 02:24	9° Ω 19'23	4.41648 AU	conjunction	-1548 Feb 12 i 07:51	10° ≈ 01'56	-1°-8'-21
direct	-1554 Apr 14 j 17:36	4° Ω 22'58		minimum elong	-1548 Feb 12 i 07:49		1°08'23
	-1554 Jul 16 j 14:50	15° Ω		max. Earth dist.	-1548 Feb 13 j 13:28		5.98936 AU
evening set	-1554 Aug 19 j 21:34			morning rise	-1548 Feb 25 j 16:12		
max. Earth dist.	-1554 Aug 31 j 05:29		6.41272 AU	monning mo	-1548 Mar 04 j 04:10	15° ≈	
			***************************************		-1548 May 18 j 16:47	0°) €	
conjunction	-1554 Sep 01 j 18:16	24°Ω56'26	1°15'12	retrograde	-1548 Jul 06 j 23:05	3°) (41′09	
minimum elong	-1554 Sep 01 j 18:15		1°15'13	renograde	-1548 Aug 25 j 13:49	30°R≈	
morning rise	-1554 Sep 14 j 11:50	27° Ω 43'31	1 10 15	opposition	-1548 Sep 04 j 21:40		-1°-52'-7
morning rise	-1554 Sep 25 j 00:40	0°m)		min. Earth dist.	-1548 Sep 03 j 18:22	28°≈46'28	3.99556 AU
retrograde	-1553 Jan 12 j 22:09	14° m) 42'10		direct	-1548 Nov 01 j 20:43		3.77330110
opposition	-1553 Mar 14 j 13:55	9° m 50'23	1°50'35	uncer	-1547 Jan 04 j 21:07	0° \	
min. Earth dist.	-1553 Mar 15 j 19:50	9° m 40'50	4.39538 AU	evening set	-1547 Mar 07 j 05:02		
direct	-1553 May 16 j 06:17	4° m) 49'14	1.57550110	evening sec	1517 Mar 07 J 05.02	13 7(00 00	
evening set	-1553 Sep 19 j 19:19	22° m)39'21		conjunction	-1547 Mar 20 j 17:48	16°) 20′01	-1°-13'-36
max. Earth dist.	-1553 Sep 30 j 12:56	25° m 02'14	6.36119 AU	minimum elong	-1547 Mar 20 j 17:49	16° ∺ 20'01	1°13'37
max. Dartii Uist.	1333 Sep 30 J 12.30	25 JUN 02 14	0.30117 AU	max. Earth dist.	-1547 Mar 20 j 17.49 -1547 Mar 22 j 18:18	16° X 48'43	6.01860 AU
conjunction	-1553 Oct 02 j 10:33	25° m 27'38	1°11'20	morning rise	-1547 Apr 03 j 09:13	19° X 33'13	0.01800 AC
minimum elong	-1553 Oct 02 j 10:35	25° m) 27'38	1°11'20	morning risc	-1547 May 20 j 18:28	0° Υ	
morning rise	-1553 Oct 02 j 10:55 -1553 Oct 14 j 23:55	28° m 15'06	1 11 20	retrograde	-1547 Aug 12 j 06:26	9° Υ 36'04	
morning rise	-	0° ⊡		•		4° Υ 30'54	-1°-37'-24
	-1553 Oct 22 j 22:33			opposition	-1547 Oct 10 j 20:07		
retrograde	-1552 Feb 14 j 02:32	15° Ω 40'51	1920106	min. Earth dist.	-1547 Oct 09 j 13:02 -1547 Nov 21 j 20:28	4° Υ 41'31	4.06009 AU
opposition	-1552 Apr 15 j 00:29	10° Ω 49'05	1°30'06	direct			
min. Earth dist.	-1552 Apr 16 j 09:24	10° £ 38'37	4.31635 AU	direct	-1547 Dec 08 j 01:36	29° ¥ 33'01 0° Ƴ	
direct	-1552 Jun 16 j 07:00	5° Ω 50'22		arramin+	-1547 Dec 24 j 08:41		
evening set	-1552 Oct 19 j 22:56	23° Ω 57'42	(2(002 ATT	evening set	-1546 Apr 13 j 06:11	18" ¥'40'32	
max. Earth dist.	-1552 Oct 30 j 20:27	26° £ 26′20	6.26093 AU		1546 1 25100 15	01000500	00 511 1 -
	155037 01:10.00	260 2 40121	0046145	conjunction	-1546 Apr 27 j 00:08		0°-51'-15
conjunction	-1552 Nov 01 j 13:06	26° Ω 49'31	0°46'45	minimum elong	-1546 Apr 27 j 00:12		0°51'14
minimum elong	-1552 Nov 01 j 13:09	26° Ω 49'32	0°46'44	max. Earth dist.	-1546 Apr 28 j 22:42		6.11224 AU
morning rise	-1552 Nov 14 j 02:35	29° £ 41'14		morning rise	-1546 May 10 j 19:27		
	-1552 Nov 15 j 11:42	0°M.			-1546 Jun 02 j 01:31	0°8	
	-1551 Feb 02 j 15:48	15~IIL		retrograde	-1546 Sep 15 j 11:26	14° 5 07'18	

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 32

2	ical year style is used: Th		•	//		/ 1	ige 32
opposition	-1546 Nov 13 j 23:24	9° 8 03'37		max. Earth dist.	-1540 Nov 04 j 06:37		6.24560 AU
min. Earth dist.	-1546 Nov 12 j 22:14		4.17218 AU	max. Earth dist.	-1340 NOV 04 J 00.37	1 1160100	0.24300 AU
	,	4° 8 02'42	4.1/218 AU		1540 N 05 : 22-26	10 m 22140	0°41'54
direct	-1545 Jan 12 j 04:23	_		conjunction	-1540 Nov 05 j 22:26	1°M23'48	
	-1545 Apr 13 j 07:41 -1545 May 19 j 03:46			minimum elong morning rise	-1540 Nov 05 j 22:28	1°M23'50	0°41'53
evening set	-1343 May 19 J 03:46	22 041 06		morning rise	-1540 Nov 18 j 12:22	4°M16'20	
	1545 1 01:21 42	2500 45152	00 111 50	. 1	-1539 Jan 08 j 10:00		
conjunction	-1545 Jun 01 j 21:43			retrograde	-1539 Mar 23 j 22:34		0022157
minimum elong	-1545 Jun 01 j 21:44		0°11'50	opposition	-1539 May 23 j 22:19		0°32'57
behind sun begin	-1545 Jun 01 j 16:03			min. Earth dist.	-1539 May 24 j 21:37		4.18372 AU
behind sun end	-1545 Jun 02 j 03:25		(22410 ATT	T'	-1539 Jun 15 j 15:38		
max. Earth dist.	-1545 Jun 03 j 02:19		6.23419 AU	direct	-1539 Jul 23 j 23:02	12°M48'51	
morning rise	-1545 Jun 15 j 14:44	28° 8 49'57 0° I I			-1539 Aug 30 j 17:28	15°M₁	
1	-1545 Jun 20 j 21:08				-1539 Nov 19 j 13:53	0° √ 1	
asc. node	-1545 Sep 19 j 12:12			evening set	-1539 Nov 25 j 19:11	1° ∡ 26'37	
retrograde	-1545 Oct 17 j 19:38	16° Ⅱ 54'13	0012147		1520 D 00 : 12.20	40 705100	0000122
opposition		11° I I54'02	0°13'47	conjunction	-1539 Dec 08 j 12:29	4° ₹ 25'29	0°00'32
min. Earth dist.	-1545 Dec 15 j 23:12		4.29201 AU	minimum elong	-1539 Dec 08 j 12:29	4° ₹ 25'29	0°00'30
direct	-1544 Feb 14 j 22:52	6° ∏ 51'10		behind sun begin	-1539 Dec 08 j 04:28	4° ₹ 20'48	
evening set	-1544 Jun 21 j 08:27	25°Щ01'24		behind sun end	-1539 Dec 08 j 20:30	4° ∡ ³30'11	
				max. Earth dist.	-1539 Dec 07 j 15:38	4° ₹ 13'15	6.12318 AU
conjunction	-1544 Jul 04 j 20:39		0°29'56	desc. node	-1539 Dec 13 j 01:11	5° ₹ 29'22	
minimum elong	-1544 Jul 04 j 20:37	27° ∏ 59'11	0°29'58	morning rise	-1539 Dec 21 j 06:54	7° ∡ ¹25'14	
max. Earth dist.	-1544 Jul 04 j 23:29	28° ∏ 00'46	6.34295 AU	retrograde	-1538 Apr 29 j 03:32		
	-1544 Jul 14 j 00:38	0°©		opposition	-1538 Jun 28 j 22:21		0°-33'-2
morning rise	-1544 Jul 18 j 06:22	0° © 55'38		min. Earth dist.	-1538 Jun 29 j 03:47		4.06782 AU
retrograde	-1544 Nov 16 j 18:22	18° © 13'20		direct	-1538 Aug 27 j 13:04	16° ∡ 57'41	
opposition	-1543 Jan 15 j 16:15	13° © 16'59	1°08'56		-1538 Dec 03 j 19:46	0°ප	
min. Earth dist.	-1543 Jan 15 j 22:04	13° © 15'04	4.38215 AU	evening set	-1538 Dec 30 j 02:20	6° る 04'33	
direct	-1543 Mar 18 j 09:42	8° © 13'31					
evening set	-1543 Jul 23 j 21:15	26° © 04'37		conjunction	-1537 Jan 12 j 01:03	9° る 10'05	0°-42'-34
max. Earth dist.	-1543 Aug 05 j 03:42	28° © 44'41	6.40717 AU	minimum elong	-1537 Jan 12 j 01:01	9° る 10'04	0°42'36
				max. Earth dist.	-1537 Jan 12 j 06:32	9° る 13'22	6.02435 AU
conjunction	-1543 Aug 06 j 00:54	28° © 56'15	1°01'44	morning rise	-1537 Jan 25 j 02:35	12° る 17'13	
minimum elong	-1543 Aug 06 j 00:51	28° © 56'13	1°01'46		-1537 Apr 26 j 05:39	0° ≈	
	-1543 Aug 10 j 21:46	$0 {\circ} \Omega$		retrograde	-1537 Jun 05 j 16:26	2° ≈ 30'32	
morning rise	-1543 Aug 19 j 01:18	1° Ω 46'17			-1537 Jul 16 j 05:27		
	•	15° Ω		min. Earth dist.	-1537 Aug 04 j 09:50		3.99666 AU
retrograde	-1543 Dec 17 j 07:42	18° Ω 41'59		opposition	-1537 Aug 05 j 00:32	27° る 29'28	-1°-29'-49
	-1542 Feb 06 j 07:29	15° Ŗ Ω		direct	-1537 Oct 02 j 11:02	22° る 36'02	
opposition	-1542 Feb 15 j 14:43	13° Ω 48'43	1°43'23		-1537 Dec 11 j 12:03	0° ≈	
min. Earth dist.	-1542 Feb 16 j 12:03	13° Ω 41′50	4.41765 AU	evening set	-1536 Feb 04 j 05:43	12° ≈ 02'04	
direct	-1542 Apr 19 j 03:26	8° Ω 46′00			-1536 Feb 16 j 15:02	15° ≈	
	-1542 Jun 26 j 18:23	15° Ω					
evening set	-1542 Aug 24 j 05:42	26° Ω 30'31		conjunction	-1536 Feb 17 j 11:58	15° ≈ 12'33	-1°-10'-49
max. Earth dist.	-1542 Sep 04 j 09:40	28° Ω 56′58	6.41004 AU	minimum elong	-1536 Feb 17 j 11:56	15° ≈ 12'32	1°10'52
				max. Earth dist.	-1536 Feb 18 j 22:19	15° ≈ 33'09	5.98674 AU
conjunction	-1542 Sep 06 j 01:18	29° Ω 18'42	1°15'56	morning rise	-1536 Mar 01 j 21:18	18° ≈ 24'43	
minimum elong	-1542 Sep 06 j 01:17	29° Ω 18'42	1°15'56		-1536 Apr 23 j 07:29	0° ∀	
	-1542 Sep 09 j 04:36	0° ™		retrograde	-1536 Jul 12 j 04:34	8° 升 52′27	
morning rise	-1542 Sep 18 j 18:10	2°Mp05'35		min. Earth dist.	-1536 Sep 08 j 20:34	3°) € 57'44	3.99848 AU
retrograde	-1541 Jan 17 j 08:18	19°№06'02		opposition	-1536 Sep 10 j 00:38	3°) 48′14	-1°-52'-40
opposition	-1541 Mar 19 j 00:35	14°M) 14'16	1°49'33		-1536 Oct 12 j 07:42	30° ₹ ≈	
min. Earth dist.	-1541 Mar 20 j 07:49	14°M)04'18	4.38885 AU	direct	-1536 Nov 06 j 23:06	28° ≈ 53′00	
direct	-1541 May 20 j 16:55	9° m 13'19			-1536 Dec 02 j 15:14	0°)	
evening set	-1541 Sep 24 j 02:32	27° m 04'34		evening set	-1535 Mar 12 j 10:31	18° ¥ 18′07	
max. Earth dist.	-1541 Oct 04 j 20:49	29° Mp 28'09	6.35112 AU				
				conjunction	-1535 Mar 26 j 00:08	21°) € 30′05	-1°-11'-58
conjunction	-1541 Oct 06 j 17:31	29° m 53'06	1°09'04	minimum elong	-1535 Mar 26 j 00:09	21°) 30′06	1°12'00
minimum elong	-1541 Oct 06 j 17:33	29° m 53'07	1°09'05	max. Earth dist.	-1535 Mar 28 j 01:08		6.02669 AU
	-1541 Oct 07 j 05:52	0∘ ⊽		morning rise	-1535 Apr 08 j 16:33		
morning rise	-1541 Oct 19 j 06:28	2° ≏ 40'50			-1535 May 01 j 17:52	0° Y	
retrograde	-1540 Feb 18 j 15:47	20° ≏ 11'35		retrograde	-1535 Aug 17 j 04:19	14° Ƴ 40'15	
opposition	-1540 Apr 19 j 15:15	15° ≏ 19'37	1°24'50	min. Earth dist.	-1535 Oct 14 j 10:10	9° Ƴ 46'04	4.07276 AU
min. Earth dist.	-1540 Apr 20 j 23:08	15° ≏ 09'29	4.30317 AU	opposition	-1535 Oct 15 j 18:10	9° Ƴ 35′09	-1°-32'-8
direct	-1540 Jun 20 j 18:19	10° ≏ 21'16		direct	-1535 Dec 13 j 01:25	4° Ƴ 36'51	
evening set	-1540 Oct 24 j 08:15	28° ₽ 31′20		evening set	-1534 Apr 18 j 09:41	23° Y 40'55	
	-1540 Oct 30 j 19:57	0°M					

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1534 in astronomical counting style is the year 1535 BCE in historical counting style. -1534 May 02 i 04:02 26° Υ'50'25 0°-46'-23 minimum elong -1529 Oct 10 j 20:46 4°**2**09'56 1°06'29 conjunction $-1534 \text{ May } 02 \text{ j } 04:05 \quad 26^{\circ} \Upsilon 50'27$ -1529 Oct 23 j 09:44 minimum elong 0°46'23 morning rise 6° £ 58'09 -1534 May 04 j 01:36 27°**Υ** 16'35 -1528 Feb 23 j 04:27 24°**£**35'15 max. Earth dist. 6.12882 AU retrograde -1534 May 15 j 23:19 -1528 Apr 24 j 03:27 19°**♀**43'07 0°800'08 1°19'15 morning rise opposition -1534 May 15 j 23:04 -1528 Apr 25 j 11:41 0°X min. Earth dist. 19°**♀**32'51 4.28593 AU -1534 Jul 31 j 02:36 15°**8** -1528 Jun 25 j 03:37 direct 14°**£**45′03 retrograde -1534 Sep 20 j 04:08 18°**8**57'11 -1528 Oct 15 j 08:14 0°M 2°M59'40 -1534 Nov 10 j 10:53 15°R₩ evening set -1528 Oct 28 j 15:19 0°-39'-54 opposition -1534 Nov 18 j 15:18 13°**8**53'53 max. Earth dist. -1528 Nov 08 j 15:56 5°M31'15 6.22520 AU min. Earth dist. -1534 Nov 17 j 16:09 14°**8**01'45 4.19098 AU direct -1533 Jan 17 j 01:32 8°**8**52'39 conjunction -1528 Nov 10 j 05:58 5°**™**53'07 0°36'56 -1528 Nov 10 j 06:00 -1533 Mar 23 j 10:38 15°8 minimum elong 5° M53'080°36'55 -1528 Nov 22 j 20:15 evening set -1533 May 24 j 01:27 27°**8**25'59 morning rise 8° M46'42 -1533 Jun 04 j 13:45 $\Pi^{\circ}0$ -1528 Dec 20 j 21:06 15°M retrograde -1527 Mar 28 j 18:14 27° ML 18'26 conjunction -1533 Jun 06 j 18:53 0°**Ⅲ**29'41 0°-5'-51 opposition -1527 May 28 j 17:25 22°M24'16 0°24'25 minimum elong -1533 Jun 06 j 18:54 0°**Ⅱ**29'42 0°05'50 min. Earth dist. -1527 May 29 j 15:06 22°M17'19 4.16157 AU behind sun begin -1533 Jun 06 j 10:57 0°**I**I25'17 direct -1527 Jul 28 j 12:53 17°M28'59 behind sun end -1533 Jun 07 j 02:50 0°**I**I34'07 desc. node -1527 Oct 24 j 09:21 27°M57'35 max. Earth dist. -1533 Jun 07 j 21:24 0°**Ⅱ**44'30 6.25389 AU -1527 Nov 03 j 00:19 0°×7 morning rise -1533 Jun 20 j 11:05 3°**Ⅲ**32'35 evening set -1527 Nov 30 j 09:28 6°**х** 13′06 asc. node -1533 Jul 30 j 18:39 12°**Д**01'58 max. Earth dist. -1527 Dec 12 i 08:19 9°×01'59 6.10121 AU retrograde -1533 Oct 22 i 03:26 21°**II**27'54 opposition -1533 Dec 20 j 19:34 16° **I** 28'12 0°22'12 conjunction -1527 Dec 13 i 03:22 9°**х** 13′14 0°-5'-39 min. Earth dist. -1533 Dec 20 j 10:20 16°ДЗ1'17 4.31105 AU minimum elong -1527 Dec 13 i 03:21 9°**х** 13′13 0°05'42 -1532 Feb 19 j 12:27 11°**Д**25'11 -1527 Dec 12 j 19:38 9°×08'41 direct behind sun begin -1532 Jun 25 j 22:52 29° **II** 30'30 -1527 Dec 13 j 11:04 9°**х** 17'45 behind sun end evening set -1532 Jun 28 j 05:03 -1527 Dec 25 j 22:53 12° ₹ 14'22 morning rise -1526 Mar 31 j 01:28 0°궁 -1532 Jul 09 j 09:50 2°527'06 0°35'06 -1526 May 04 j 07:52 conjunction retrograde 1°**る**48'10 -1532 Jul 09 j 09:48 -1526 Jun 07 j 16:51 30°R ✓ 2°927'05 0°35'06 minimum elong 2°526'43 -1532 Jul 09 j 09:07 -1526 Jul 04 j 00:36 26° ₹ 50'33 0°-42'00 max. Earth dist. 6.35985 AU opposition -1526 Jul 04 j 03:07 26°**尽** 49'43 4.04798 AU -1532 Jul 22 j 18:12 5°**©**22'17 min. Earth dist. morning rise -1526 Sep 01 j 10:25 21° ₹ 57'04 -1532 Nov 20 j 23:52 22°533'45 retrograde direct -1531 Jan 19 j 22:33 17°537'55 1°15'00 -1526 Nov 14 j 13:29 opposition 0°ਰ -1525 Jan 04 j 01:04 11°쥥10'02 min. Earth dist. -1531 Jan 20 j 07:20 17°535'02 4.39569 AU evening set -1531 Mar 22 j 20:42 12°534'30 direct -1531 Jul 26 j 12:17 $0^{\circ}\Omega$ conjunction -1525 Jan 17 j 01:02 14° 중16'48 0°-47'-43 evening set -1531 Jul 28 j 05:20 0°**£**22′09 minimum elong -1525 Jan 17 j 01:00 14°♂16'46 0°47'44 max. Earth dist. -1531 Aug 09 j 06:45 2°**Ω**59'19 6.41603 AU max. Earth dist. -1525 Jan 17 j 12:13 14°**ට**23'30 6.00862 AU morning rise -1525 Jan 30 j 03:38 17°₹25'08 -1531 Aug 10 j 07:42 3°**Ω**12'54 1°04'45 -1525 Mar 28 j 18:51 conjunction -1531 Aug 10 j 07:39 3°**Ω**12'53 1°04'47 -1525 Jun 11 j 02:06 minimum elong retrograde 7°≈45'30 -1531 Aug 23 j 06:53 6°**Ω**02'06 -1525 Aug 10 j 06:49 2°≈43'55 -1°-35'-27 morning rise opposition -1531 Oct 06 j 08:27 15°**Ω** min. Earth dist. -1525 Aug 09 j 13:54 2°≈49'34 3.98696 AU retrograde -1531 Dec 21 i 10:44 $22^{\circ}\Omega$ 55'27 -1525 Sep 01 i 01:12 30°Rる opposition -1530 Feb 19 i 19:44 $18^{\circ}\Omega$ 02'27 $1^{\circ}45'52$ direct -1525 Oct 07 j 13:47 27°る50'24 min. Earth dist. -1530 Feb 20 j 18:56 $17^{\circ}\Omega$ 54'58 4.42143 AU -1525 Nov 12 j 17:00 0°**≈** -1530 Mar 17 j 05:39 15°RΩ -1524 Jan 30 i 16:05 15°≈ direct -1530 Apr 23 j 09:39 $12^{\circ}\Omega$ 59'52 -1524 Feb 09 j 11:44 17°≈19'29 evening set -1530 May 30 j 19:47 $15^{\circ}\Omega$ -1530 Aug 25 j 01:49 -1524 Feb 22 j 19:00 20°≈30'35 -1°-12'-42 0° m conjunction -1530 Aug 28 j 09:51 -1524 Feb 22 j 18:59 20°≈30'34 1°12'43 evening set 0° Tp 43'26 minimum elong -1530 Sep 08 j 12:04 -1524 Feb 24 j 08:13 20°≈52'53 5.98372 AU max. Earth dist. 3° Mp 09'02 6.40829 AU max. Earth dist. morning rise -1524 Mar 07 j 05:42 23°≈43'25 conjunction -1530 Sep 10 j 04:39 3°My31'19 1°16'12 -1524 Apr 03 j 08:47 0°**)**€ -1530 Sep 10 j 04:39 3°**m** 31'19 1°16'12 retrograde -1524 Jul 17 j 09:39 14° **∺** 10'36 minimum elong -1530 Sep 22 j 20:35 6° Mp 17'56 -1524 Sep 13 j 22:32 9°**光**16′27 4.00264 AU morning rise min. Earth dist. -1529 Jan 21 j 14:05 23° m 20'20 -1524 Sep 15 j 05:15 9°**₩**06'01 -1°-52'-14 retrograde opposition -1529 Mar 23 j 07:39 18° Mp 28'42 1°47'55 -1524 Nov 12 j 02:53 opposition direct 4°**₩**10'21 -1523 Mar 17 j 18:28 23° ¥ 34'04 min. Earth dist. -1529 Mar 24 j 16:12 18° **m** 18'20 4.38153 AU evening set direct -1529 May 24 j 23:21 13° Mp 28'04 -1529 Sep 22 j 03:23 0∘**⊽** conjunction -1523 Mar 31 j 09:04 26° **★**45'58 -1°-9'-42 evening set -1529 Sep 28 j 06:12 1°**£**21'03 minimum elong -1523 Mar 31 j 09:07 26° **★** 46'00 1°09'43 max. Earth dist. -1529 Oct 08 j 21:42 3°**£**43'35 6.33858 AU max. Earth dist. -1523 Apr 02 j 11:41 27° **∺** 15'45 6.03744 AU -1523 Apr 14 j 02:08 29° **€** 58'58 morning rise -1529 Oct 10 j 20:44 4°**£**09'55 1°06'29 -1523 Apr 14 j 03:54 conjunction

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1523 in astronomical counting style is the year 1524 BCE in historical counting style. -1523 Aug 22 i 04:47 19°**Υ**'48'24 retrograde evening set -1517 Oct 02 i 14:55 5°**£**50'10 min. Earth dist. -1523 Oct 19 j 10:16 14° Υ 53'51 4.08835 AU max. Earth dist. -1517 Oct 13 j 07:42 8°**2**13'54 6.32350 AU -1523 Oct 20 j 17:14 14°**Υ**'43'16 -1°-26'-4 opposition direct -1523 Dec 18 j 04:36 9°**Y**44'25 -1517 Oct 15 j 05:20 8°**△**39'33 1°03'25 conjunction -1517 Oct 15 j 05:23 -1522 Apr 23 j 13:58 28°**Y**43'47 8°**£**39'34 1°03'24 evening set minimum elong -1522 Apr 29 j 03:41 -1517 Oct 27 j 18:08 0° 8 morning rise 11°**≏**28'22 -1516 Feb 27 j 22:16 29°**△**12'30 retrograde -1522 May 07 j 08:35 1°852'33 0°-41'-8 -1516 Apr 28 j 21:33 24°**£**20'15 1°12'51 conjunction opposition -1522 May 07 j 08:38 -1516 Apr 30 j 05:16 24°**♀**10'09 minimum elong 1°**8**52'35 0°41'08 min. Earth dist. 4.26803 AU -1522 May 09 j 05:29 -1516 Jun 29 j 18:28 max. Earth dist. 2°**8**18'13 6.14764 AU direct 19°**≏**22'37 -1516 Sep 27 j 23:32 morning rise -1522 May 21 j 03:45 5°**8**01'22 0° M -1522 Jul 07 j 00:55 -1516 Nov 02 j 04:02 7°**IL**41'38 15°8 evening set -1522 Sep 24 j 18:37 23°**8**48'20 -1516 Nov 13 j 05:35 retrograde max. Earth dist. 10°M14'29 6.20605 AU min. Earth dist. -1522 Nov 22 j 08:53 18°**8**53'00 4.21082 AU opposition -1522 Nov 23 j 07:18 18°845'24 0°-31'-7 conjunction -1516 Nov 14 j 18:51 10°M36'00 0°31'27 -1522 Dec 24 j 21:12 15°R8 minimum elong -1516 Nov 14 j 18:53 10°M36'01 0°31'26 direct -1521 Jan 21 j 20:49 13°**8**43'49 morning rise -1516 Nov 27 j 09:53 13°M30'41 -1521 Feb 19 j 06:35 15°8 -1516 Dec 03 j 22:11 15°M -1521 May 18 j 23:03 $0^{\circ}\Pi$ -1515 Feb 23 j 16:52 0°×7 evening set -1521 May 28 j 23:22 2°II11'53 retrograde -1515 Apr 02 j 19:37 2°×11'43 asc. node -1521 Jun 08 j 21:01 4°**I**37′09 -1515 May 11 j 07:51 30°RML opposition -1515 Jun 02 j 18:25 27° ML17'09 0°15'13 conjunction -1521 Jun 11 i 15:59 5°**I**14'27 0°00'19 min. Earth dist. -1515 Jun 03 j 13:17 27°ML11'04 4.14264 AU minimum elong -1521 Jun 11 i 16:00 5°**Ⅱ**14'27 0°00'21 direct -1515 Aug 02 j 09:00 22°M22'12 behind sun begin -1521 Jun 11 j 07:42 5°**Ⅱ**09'52 desc. node -1515 Sep 02 j 12:44 23°M 53'36 -1521 Jun 12 j 00:17 5°**Ⅱ**19'03 -1515 Oct 14 j 13:06 0°**∡**¹ behind sun end -1521 Jun 12 j 13:42 5°**П**26'32 6.27303 AU -1515 Dec 05 j 04:24 11° ₹ 11'11 max Earth dist evening set -1521 Jun 25 j 07:21 8°**Ⅱ**16′08 morning rise -1521 Oct 26 j 13:47 26°**Д**03'06 conjunction -1515 Dec 17 j 23:10 14° **1**2'22 0°-12'-1 retrograde -1521 Dec 25 j 06:13 21°**II**03'56 0°30'37 minimum elong -1515 Dec 17 j 23:09 14° ₹ 12'21 0°12'04 opposition -1521 Dec 25 j 00:26 21°**Д**05'52 4.32784 AU -1515 Dec 17 j 17:35 14° ₹ 09'04 min. Earth dist. behind sun begin -1515 Dec 18 j 04:44 14° **₹**15'38 -1520 Feb 24 j 05:01 16°**Д**00'44 direct behind sun end -1515 Dec 17 j 09:35 14°**尽** 04'19 -1520 Jun 11 j 16:21 max. Earth dist. 6.08455 AU 0.ಎ -1515 Dec 30 j 19:27 17° ₹ 14'37 -1520 Jun 30 j 14:06 4°9502'06 evening set morning rise -1514 Feb 28 j 11:10 0°る -1520 Jul 14 j 00:00 6°957'42 0°40'10 -1514 May 09 j 16:25 6°**る**56'44 conjunction retrograde -1520 Jul 13 j 23:58 -1514 Jul 09 j 06:43 1°る58'39 0°-51'00 minimum elong 6°957'40 0°40'11 opposition max. Earth dist. -1520 Jul 13 j 20:08 6°\$55'35 6.37294 AU min. Earth dist. -1514 Jul 09 j 06:37 1°る58'41 4.03551 AU morning rise -1520 Jul 27 j 06:59 9°951'47 -1514 Jul 24 j 19:46 30° R 🗷 retrograde -1520 Nov 25 j 05:05 26°958'32 direct -1514 Sep 06 j 12:12 27°**尽** 05'23 opposition -1519 Jan 24 j 06:30 22°503'07 1°20'52 -1514 Oct 19 j 04:34 0°궁 min. Earth dist. -1519 Jan 24 j 16:55 21°559'43 4.40450 AU -1513 Jan 09 j 03:00 16°**♂**21'31 evening set -1519 Mar 27 j 06:50 16°559'43 direct -1519 Jul 10 j 02:36 conjunction -1513 Jan 22 j 03:45 19°**♂**28'59 0°-52'-38 0° Ω -1519 Aug 01 j 15:38 4°**Ω**45'36 -1513 Jan 22 j 03:42 19°**♂**28'57 evening set minimum elong -1513 Jan 22 j 18:16 19°る37'42 max. Earth dist. 6.00141 AU -1519 Aug 14 j 16:44 7°**Ω**35'41 1°07'34 -1513 Feb 04 i 07:36 22°る38'09 conjunction morning rise -1519 Aug 14 j 16:42 -1513 Mar 08 i 07:14 minimum elong 7°Ω35'40 1°07'35 0°**≈** -1519 Aug 13 j 12:39 7°**Ω**20'23 6.41979 AU max. Earth dist. retrograde -1513 Jun 16 j 08:26 13°≈01'39 morning rise -1519 Aug 27 j 14:45 $10^{\circ}\Omega$ 24'15 opposition -1513 Aug 15 i 13:17 7°≈59'32 -1°-40'-23 -1519 Sep 18 j 07:04 15° Ω min. Earth dist. -1513 Aug 14 i 16:41 8°≈06'25 3.98624 AU retrograde -1519 Dec 25 j 18:50 $27^{\circ}\Omega 17'02$ direct -1513 Oct 12 j 17:08 3°≈05'51 -1512 Jan 12 j 18:00 15°**≈** -1518 Feb 24 j 04:31 22°**Ω**24'21 opposition 1°47'58 -1512 Feb 14 j 17:24 22°≈34'42 min. Earth dist. -1518 Feb 25 j 06:19 $22^{\circ}\Omega$ 16'03 4.42004 AU evening set direct -1518 Apr 27 j 20:46 17°**Ω**21'58 -1518 Aug 08 j 17:36 0° m conjunction -1512 Feb 28 j 01:47 25°≈46'01 -1°-14'-2 evening set -1518 Sep 01 j 17:44 5° Mp 06'00 minimum elong -1512 Feb 28 j 01:46 25°≈46'00 1°14'03 7°**m** 29'55 max. Earth dist. -1518 Sep 12 j 16:17 6.40165 AU max. Earth dist. -1512 Feb 29 j 18:42 26°≈10'30 5.98935 AU -1512 Mar 12 j 13:20 28°≈58'57 morning rise -1518 Sep 14 j 11:42 7° m 53'48 1°16'07 -1512 Mar 16 j 20:37 conjunction 0°**∀** -1518 Sep 14 j 11:42 7° **m** 53'48 1°16'07 -1512 Jul 22 j 13:39 19°**∺**22'11 minimum elong retrograde morning rise -1518 Sep 27 j 03:03 10° Mp 40'26 min. Earth dist. -1512 Sep 19 j 00:46 14° **★** 27'48 4.01392 AU retrograde -1517 Jan 26 j 01:16 27° Mp 46'23 opposition -1512 Sep 20 j 07:32 14° **∺** 17'20 -1°-50'-55 opposition -1517 Mar 27 j 19:55 22° m 54'45 1°45'41 direct -1512 Nov 17 j 07:26 9°**∺**21'15 min. Earth dist. -1517 Mar 29 j 04:50 22° Mp 44'16 4.37019 AU evening set -1511 Mar 22 j 23:08 28° **★**41'14 -1517 May 29 j 09:59 17° m 54'23 -1511 Mar 28 j 13:59 $0^{\circ}\Upsilon$ direct

-1517 Sep 05 j 13:52

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1511 in astronomical counting style is the year 1512 BCE in historical counting style. 1°Υ52'46 -1°-6'-59 -1511 Apr 05 j 14:32 conjunction -1506 Sep 18 j 19:04 12° mp 18'28 1°15'34 conjunction -1511 Apr 05 j 14:35 1°Y52'47 1°07'00 minimum elong -1506 Sep 18 j 19:05 12° mp 18'28 1°15'35 minimum elong max. Earth dist. -1511 Apr 07 j 18:19 2°Y23'06 -1506 Oct 01 j 09:49 15° m 05'16 6.05319 AU morning rise -1511 Apr 19 j 08:08 5°**Y**05'15 -1506 Dec 22 j 18:54 0∘⊽ morning rise -1511 Aug 26 j 23:21 24°**Y**45'42 -1505 Jan 30 j 14:37 retrograde retrograde 2°**£**15'58 -1511 Oct 24 j 05:23 19°**Υ**51'16 4.10680 AU min. Earth dist. -1505 Mar 10 j 20:24 30°R M 1°42'49 -1511 Oct 25 j 12:09 19°**Ƴ**40'47 opposition -1°-19'-35 opposition -1505 Apr 01 j 09:37 27° m 24'24 14°**Y**41'33 direct -1511 Dec 23 j 01:47 min. Earth dist. -1505 Apr 02 j 19:25 27° m 13'38 4.35649 AU -1510 Apr 12 j 12:10 0°8 direct -1505 Jun 02 j 22:54 22° m 24'26 evening set -1510 Apr 28 j 14:05 3°**8**35'46 -1505 Aug 17 j 15:31 0∘**⊽** evening set -1505 Oct 07 j 00:35 10°**£**23'25 -1510 May 12 j 08:36 6°843'40 0°-35'-46 -1505 Oct 17 j 17:02 12°**2**47'34 conjunction max. Earth dist. 6.30742 AU -1510 May 12 j 08:38 minimum elong 6°**8**43'41 0°35'47 max. Earth dist. -1510 May 14 j 01:20 7°**8**06'51 6.16716 AU conjunction -1505 Oct 19 j 14:49 13°**£**13'23 0°59'54 morning rise -1510 May 26 j 03:38 9°851'31 minimum elong -1505 Oct 19 j 14:51 13°**♀**13'25 0°59'53 -1510 Jun 18 j 10:46 15°8 morning rise -1505 Nov 01 j 03:49 16°**≙**02'56 retrograde -1510 Sep 29 j 06:30 28°\(\begin{align*} 29'02 \] -1504 Jan 12 j 00:00 opposition -1510 Nov 27 j 19:24 23°**8**26'35 0°-22'-28 retrograde -1504 Mar 03 j 17:14 3°M54'29 min. Earth dist. -1510 Nov 27 j 00:00 23°**8**33'09 4.22940 AU -1504 Apr 26 j 02:04 30°R ₽ direct -1509 Jan 26 j 14:18 18°**8**24'41 opposition -1504 May 03 j 17:28 29° **2**01'56 1°05'53 asc. node -1509 Apr 19 j 05:59 27°832'18 min. Earth dist. -1504 May 04 j 22:55 28° **2**52'33 4.25060 AU -1509 May 01 j 18:47 $0^{\circ}\Pi$ direct -1504 Jul 04 i 10:13 24°**£**04'42 evening set -1509 Jun 02 j 17:06 6°**Ⅱ**48'21 -1504 Sep 07 i 06:20 0°M evening set -1504 Nov 06 j 17:50 12°M27'36 conjunction -1509 Jun 16 i 09:12 9°**Ⅱ**49'59 0°06'16 -1504 Nov 17 i 17:41 15°M -1509 Jun 16 j 09:12 9°**Ⅱ**49'59 0°06'17 max. Earth dist. -1504 Nov 18 j 00:13 15°ML03'47 6.18898 AU minimum elong -1509 Jun 16 j 01:22 9°**Ⅱ**45'40 behind sun begin -1509 Jun 16 j 17:01 9°**Ⅱ**54'18 -1504 Nov 19 j 09:07 15°M22'51 behind sun end conjunction 0°25'42 -1509 Jun 17 j 04:16 10°**Д**00'33 6.28937 AU -1504 Nov 19 j 09:08 15°M22'52 max. Earth dist. minimum elong 0°25'41 -1509 Jun 29 j 23:27 12°**耳**50'33 -1504 Dec 02 j 00:33 18°M 18'28 morning rise morning rise -1509 Oct 13 j 00:54 -1503 Jan 26 j 09:28 0°**∡**¹ 0ಂಲ 7°**∡**¹07'45 -1509 Oct 30 j 19:45 -1503 Apr 07 j 22:54 0°930'45 retrograde retrograde -1503 Jun 07 j 20:12 -1509 Nov 17 j 13:10 30°RⅡ 2°**х** 12'45 0°05'49 opposition 2°**҂**07'18 4.12713 AU -1509 Dec 29 j 13:58 25°**Ⅲ**32'11 0°38'35 min. Earth dist. -1503 Jun 08 j 13:08 opposition -1509 Dec 29 j 10:04 25° **I** 33'29 4.34077 AU -1503 Jun 25 j 15:35 30°RML min. Earth dist. -1508 Feb 28 j 15:50 20°**Ⅲ**28'57 -1503 Jul 12 j 17:21 28°M 19'42 direct desc. node -1503 Aug 07 j 06:56 27°M 18'07 -1508 May 24 j 23:19 0°5 direct evening set -1508 Jul 05 j 02:27 8°927'49 -1503 Sep 18 j 00:27 0°**尽** evening set -1503 Dec 09 j 23:59 16° ₹ 10'32 conjunction -1508 Jul 18 j 11:03 11°522'35 0°44'52 minimum elong -1508 Jul 18 j 11:00 11°522'33 0°44'54 conjunction -1503 Dec 22 j 19:18 19° ₹ 12'31 0°-18'-18 max. Earth dist. -1508 Jul 18 j 02:00 11°517'38 -1503 Dec 22 j 19:17 19° ₹12'31 0°18'21 minimum elong -1508 Jul 31 j 16:56 14°515'51 max. Earth dist. -1503 Dec 22 j 08:31 19°**х** 06'08 morning rise 6.07188 AU -1508 Oct 31 j 07:22 -1502 Jan 04 j 16:39 22° ₹ 15'45 0 $^{\circ}\Omega$ morning rise -1508 Nov 29 j 11:55 -1502 Feb 07 j 19:15 0°궁 retrograde 1°**Ω**19'50 -1508 Dec 28 i 14:15 30°RS retrograde -1502 May 14 j 21:16 12°る04'20 opposition -1507 Jan 28 i 13:23 26°524'55 1°26'11 opposition -1502 Jul 14 i 11:44 7°**る**05'36 0°-59'-34 min. Earth dist. -1507 Jan 29 i 03:13 26°\$20'25 4.40825 AU min. Earth dist. -1502 Jul 14 i 07:37 7°**る**06'57 4.02695 AU direct -1507 Mar 31 i 17:37 21°521'37 direct -1502 Sep 11 j 12:13 2°る12'23 evening set -1507 Jun 22 j 02:15 -1501 Jan 14 j 03:49 21°る30'19 $0^{\circ}\Omega$ -1507 Aug 06 j 00:30 evening set 9°Ω07'17 max. Earth dist. -1507 Aug 17 j 18:19 11°**Ω**40'29 -1501 Jan 27 j 05:35 24°♂38'22 0°-57'-7 6.41842 AU conjunction -1501 Jan 27 j 05:32 24°る38'20 0°57'10 minimum elong 5.99759 AU conjunction -1507 Aug 19 j 00:39 11°**Ω**57'01 1°09'57 max. Earth dist. -1501 Jan 28 j 00:59 24°**정**50'01 minimum elong -1507 Aug 19 j 00:37 11°**Ω**57'00 1°09'57 morning rise -1501 Feb 09 j 10:19 27°정48'05 -1507 Aug 31 j 21:31 14°**Ω**45'12 -1501 Feb 18 j 17:20 morning rise 0°≈ -1507 Sep 02 j 00:51 15°**Ω** -1501 May 06 j 14:36 15°≈ -1507 Nov 27 j 06:25 -1501 Jun 21 j 14:52 18°≈13'19 0° m retrograde -1501 Aug 06 j 20:03 15°R≈ retrograde -1507 Dec 30 j 01:31 1°m/39'12 -1501 Aug 20 j 17:45 13°≈10'41 -1°-44'-28 -1506 Feb 01 j 00:43 30°R€ opposition opposition -1506 Feb 28 j 13:15 $26^{\circ}\Omega 46'46$ 1°49'27 min. Earth dist. -1501 Aug 19 j 20:00 13°≈17'59 3.98764 AU min. Earth dist. -1506 Mar 01 j 15:39 26°**Ω**38'18 4.41403 AU direct -1501 Oct 17 j 21:10 8°≈16'45 direct -1506 May 02 j 05:01 21°**Ω**44'39 -1501 Dec 23 j 03:47 15°≈ -1506 Jul 21 j 10:57 0° m evening set -1500 Feb 19 j 21:18 27°≈44'45 evening set -1506 Sep 06 j 01:50 9° m 30'33 -1500 Feb 29 j 08:28 0°**)**€ max. Earth dist. -1506 Sep 16 j 23:08 11° m 54'13 6.39147 AU

conjunction

-1500 Mar 04 j 06:41 0° **★** 56'13 -1°-14'-47

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1500 in astronomical counting style is the year 1501 BCE in historical counting style. minimum elong -1500 Mar 04 i 06:41 0°\\$56'13 1°14'49 -1495 Aug 23 j 09:30 16° Ω 20'43 1°12'00 minimum elong 1°**¥**22'14 5.99566 AU -1500 Mar 06 i 02:18 -1495 Sep 05 j 05:30 19°**Ω**08'36 max. Earth dist. morning rise -1500 Mar 17 j 19:13 4°**₩**09'16 -1495 Oct 29 j 22:46 0° m morning rise -1500 Jul 27 j 14:09 24°**H**28'04 -1494 Jan 03 j 12:05 6° Mp 03'58 retrograde retrograde -1500 Sep 23 j 23:21 19°**)** 33'52 4.02470 AU -1494 Mar 04 j 23:57 min. Earth dist. opposition 1° Mp 11'48 1°50'23 -1500 Sep 25 j 07:07 19°**米**23'04 -1°-48'-49 opposition min. Earth dist. -1494 Mar 06 j 04:20 1° Mp 02'43 4.40857 AU direct -1500 Nov 22 j 07:05 14°**¥**26'34 -1494 Mar 14 j 10:00 30°R€ $0^{\circ}\Upsilon$ -1499 Mar 11 j 20:48 direct -1494 May 06 j 17:09 26°**Ω**09'59 3°Y43'23 0°m evening set -1499 Mar 28 j 02:21 -1494 Jun 28 j 06:46 evening set -1494 Sep 10 j 10:41 13° M 57'16 conjunction -1499 Apr 10 j 18:19 6°**Y**54'33 -1°-3'-50 max. Earth dist. -1494 Sep 21 j 07:15 16° Mp 20'52 6.38275 AU -1499 Apr 10 j 18:22 minimum elong 6°**Y**54'35 1°03'51 -1499 Apr 12 j 20:01 max. Earth dist. 7°**Y**23'34 6.06731 AU conjunction -1494 Sep 23 j 03:23 16° mp 45'17 1°14'37 -1494 Sep 23 j 03:24 16° m 45'18 morning rise -1499 Apr 24 j 12:31 10°**Y**06′37 minimum elong 1°14'37 retrograde -1499 Aug 31 j 16:27 29°**Y**38'54 morning rise -1494 Oct 05 j 17:34 19° My 32'14 min. Earth dist. -1499 Oct 29 j 00:12 24°**Υ**'44'06 4.12264 AU -1494 Nov 26 j 07:21 0∘**⊽** opposition -1499 Oct 30 j 05:23 24°**Υ**'34'08 -1°-12'-40 retrograde -1493 Feb 04 j 03:16 6°**£**47'13 direct -1499 Dec 27 j 22:51 19°**Y**34'27 opposition -1493 Apr 06 j 00:21 1°**≏**55'37 1°39'20 -1498 Mar 25 j 14:09 0°8 min. Earth dist. -1493 Apr 07 j 08:47 1°**£**45'18 4.34529 AU evening set -1498 May 03 j 13:01 8°**8**24'36 -1493 Apr 21 j 13:38 30°R M direct -1493 Jun 07 j 10:50 26° m 56'06 conjunction -1498 May 17 i 07:45 11°**8**31'51 0°-30'-14 -1493 Jul 23 i 17:59 0∘**⊽** minimum elong -1498 May 17 i 07:47 11°**8**31'52 0°30'13 evening set -1493 Oct 11 j 10:43 14° **2**57'20 max. Earth dist. -1498 May 18 j 23:01 11°**8**54'07 6.18362 AU max. Earth dist. -1493 Oct 22 j 05:22 17°**Ω**23'10 6.29481 AU morning rise -1498 May 31 j 02:20 14°838'49 -1498 Jun 01 j 16:03 15°8 -1493 Oct 24 j 00:48 17°**2**47'45 conjunction 0°56'04 -1498 Aug 19 j 14:05 -1493 Oct 24 j 00:50 17°**£**47'47 0°Π 0°56'04 minimum elong -1498 Oct 03 j 17:59 -1493 Nov 05 j 13:48 20°**2**37'51 3°**Ⅱ**08'03 morning rise retrograde -1498 Nov 17 j 20:55 30°R8 -1493 Dec 19 j 20:30 0°M 8° M35'38-1492 Mar 08 j 13:35 opposition retrograde -1498 Dec 01 j 13:34 28°812'04 4.24488 AU -1492 May 08 j 13:17 min. Earth dist. 3°M42'53 0°58'33 opposition -1497 Jan 31 j 05:59 23°**8**03'59 -1492 May 09 j 18:04 direct min. Earth dist. 3°M33'43 4.23724 AU -1497 Feb 27 j 08:08 24°**8**12'48 -1492 Jun 10 j 14:22 30°R <u>Ω</u> asc. node -1497 Apr 12 j 01:31 0°**Ⅱ** -1492 Jul 09 j 03:43 28°**♀**46'05 direct -1497 Jun 07 j 10:59 11°**Ⅲ**24'16 -1492 Aug 06 j 12:09 evening set 0°M -1492 Nov 01 j 16:51 15°M -1497 Jun 21 j 02:08 14°**Ⅲ**25'00 0°12'07 -1492 Nov 11 j 06:56 17° ML11'31 conjunction evening set minimum elong -1497 Jun 21 j 02:07 14°**I**I24'59 0°12'08 behind sun begin -1497 Jun 20 j 20:39 14°**Ц**21'58 conjunction -1492 Nov 23 j 22:30 20°ML07'27 0°19'53 behind sun end -1497 Jun 21 j 07:35 14°**II**28'00 minimum elong -1492 Nov 23 j 22:32 20°M07'28 0°19'51 max. Earth dist. -1497 Jun 21 j 15:55 14°**Ⅲ**32'36 6.30259 AU max. Earth dist. -1492 Nov 22 j 15:33 19°M49'28 6.17605 AU -1497 Jul 04 j 15:35 17°**Ⅲ**24'38 -1492 Dec 06 j 14:38 23°ML03'54 morning rise morning rise -1497 Sep 06 j 20:19 -1491 Jan 06 j 16:17 0° ⊀ -1497 Nov 04 j 03:51 -1491 Apr 12 j 22:10 12° ₹ 00'04 retrograde 4°959'09 retrograde -1496 Jan 02 j 22:32 0°501'07 0°46'22 -1491 May 23 j 06:00 9° ₹36'07 opposition desc. node -1496 Jan 02 j 21:38 0°501'25 4.35093 AU min. Earth dist. opposition -1491 Jun 12 i 20:16 7°**∡**104'35 0°-3'-25 -1496 Jan 03 i 01:54 30°R II min. Earth dist. -1491 Jun 13 i 09:36 7°**₹**00'17 4.11564 AU direct -1496 Mar 04 i 04:59 24° **1**57'45 direct -1491 Aug 12 i 01:31 2°**х** 10′15 -1496 May 03 i 13:19 0°5 evening set -1491 Dec 14 j 17:32 21° ₹04'57 -1496 Jul 09 j 15:34 12°554'56 evening set -1491 Dec 27 j 13:35 24° \$\times^107'38 0°-24'-19 conjunction -1496 Jul 22 j 23:12 15°\$49'00 0°49'23 -1491 Dec 27 j 13:33 24° ₹07'36 0°24'21 conjunction minimum elong -1496 Jul 22 j 23:09 15°5548'58 0°49'25 -1491 Dec 27 j 07:27 24° ₹03'59 6.06284 AU minimum elong max. Earth dist. morning rise max. Earth dist. -1496 Jul 22 j 12:06 15°5542'56 6.38777 AU -1490 Jan 09 j 11:39 27° ₹ 11'35 -1490 Jan 21 j 11:40 0° ප් morning rise -1496 Aug 05 j 03:39 18°5541'29 -1496 Oct 01 j 13:09 0 $^{\circ}$ Ω retrograde -1490 May 20 j 01:00 17°る05'27 retrograde -1496 Dec 03 j 18:01 5°**Ω**43'17 opposition -1490 Jul 19 j 13:53 12°중06'10 -1°-7'-27 -1495 Feb 01 j 21:27 0°**Ω**48'50 1°31'07 min. Earth dist. -1490 Jul 19 j 08:11 12°중08'03 4.02123 AU opposition -1495 Feb 02 j 12:26 -1490 Sep 16 j 12:09 7°**る**12'58 min. Earth dist. 0°**Ω**43'58 4.41070 AU direct -1489 Jan 19 j 02:05 26° ₹32'05 -1495 Feb 08 j 04:21 30° № 5 evening set direct -1495 Apr 05 j 03:10 25°5045'42 -1495 May 30 j 15:29 0 $^{\circ}$ Ω conjunction -1489 Feb 01 j 04:46 29°₹40'36 -1°-1'-3 evening set -1495 Aug 10 j 10:37 13°**Ω**31'24 minimum elong -1489 Feb 01 j 04:43 29°る40'35 1°01'04 -1495 Aug 17 j 05:38 15°**Ω** max. Earth dist. -1489 Feb 02 j 03:21 29°중54'10 5.99557 AU max. Earth dist. -1495 Aug 21 j 23:58 16°**Ω**02'24 6.41670 AU -1489 Feb 02 j 13:05 0°≈ -1489 Feb 14 j 10:34 2°≈50'51 morning rise

-1489 Apr 10 j 17:55 15°≈

-1495 Aug 23 j 09:32 16° **Ω**20'44 1°11'59

conjunction

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1489 in astronomical counting style is the year 1490 BCE in historical counting style. opposition -1489 Jun 26 j 16:45 23°≈16'57 -1483 Feb 06 i 05:40 5°Ω12'33 1°35'28 retrograde opposition -1489 Aug 25 j 18:11 18°≈13'57 -1°-47'-38 min. Earth dist. -1483 Feb 06 j 22:53 5°**Ω**06'58 4.41348 AU min. Earth dist. -1489 Aug 24 j 18:27 18°≈21'56 3.98990 AU -1483 Apr 09 j 14:10 0°**Ω**09'27 direct -1489 Sep 21 j 02:32 15°R≈ -1483 Aug 01 j 05:40 15°**Ω** -1483 Aug 14 j 19:41 17° Ω 54'33 direct -1489 Oct 22 j 19:24 13°≈19'46 evening set -1489 Nov 23 j 09:47 15°≈ max. Earth dist. -1483 Aug 26 j 07:43 20°**Ω**24'53 6.41591 AU -1488 Feb 13 j 01:30 0°**)** conjunction evening set -1488 Feb 24 j 22:16 2°**)**47'10 -1483 Aug 27 j 17:42 20°**Ω**43'28 1°13'36 minimum elong -1483 Aug 27 j 17:40 20°**Ω**43'27 1°13'37 conjunction -1488 Mar 09 j 08:34 5°**)** 58'47 -1°-14'-58 morning rise -1483 Sep 09 j 12:29 $23^{\circ}\Omega 30'55$ minimum elong -1488 Mar 09 j 08:34 5°**H**58'47 1°15'00 -1483 Oct 10 j 10:34 0° M -1488 Mar 11 j 04:13 -1482 Jan 07 j 19:26 10° M 27'08 max. Earth dist. 6°**¥**24'46 6.00173 AU retrograde -1482 Mar 09 j 09:44 morning rise -1488 Mar 22 j 22:07 9°**升**11'57 opposition 5° Mg 35'05 1°50'39 retrograde -1488 Aug 01 j 10:40 29°**∺**26'45 min. Earth dist. -1482 Mar 10 j 14:17 5° m 25'56 4.40418 AU min. Earth dist. -1488 Sep 28 j 19:51 24° ¥ 32'23 4.03389 AU direct -1482 May 11 j 02:22 0°m/33'29 opposition -1488 Sep 30 j 03:23 24°**米**21'37 -1°-46'-2 evening set -1482 Sep 14 j 18:24 18° Mp 21'29 direct -1488 Nov 27 j 04:47 19°**米**24'41 max. Earth dist. -1482 Sep 25 j 13:02 20° m/44'23 6.37479 AU -1487 Feb 22 j 01:38 $0^{\circ}\Upsilon$ evening set -1487 Apr 02 j 02:36 8°Y39'16 conjunction -1482 Sep 27 j 10:20 21° mp 09'30 1°13'15 minimum elong -1482 Sep 27 j 10:21 21° mp 09'31 conjunction -1487 Apr 15 j 19:28 11°**Υ**'50'16 -1°00'-20 morning rise -1482 Oct 10 j 00:11 23° m 56'36 minimum elong $-1487 \text{ Apr } 15 \text{ i } 19:31 \quad 11^{\circ} \Upsilon 50'18$ 1°00'21 -1482 Nov 07 i 08:05 0∘**⊽** max. Earth dist. -1487 Apr 17 j 21:33 12°**Y**19'25 6.07906 AU retrograde -1481 Feb 08 i 17:09 11°**2**15'37 morning rise -1487 Apr 29 j 13:59 15°**Υ**01'58 opposition -1481 Apr 10 i 14:10 6°**£**23'55 1°35'17 -1487 Jul 12 j 23:23 0°8 min. Earth dist. -1481 Apr 11 j 23:36 6°**£**13'17 4.33385 AU -1487 Sep 05 j 08:54 4°**8**27'14 -1481 Jun 11 j 23:51 retrograde direct 1°**Ω**24'39 -1487 Oct 30 j 07:03 30°R℃ -1481 Oct 15 j 19:16 19°**£**28'07 evening set -1487 Nov 03 j 20:29 29°**Υ**22'48 -1°-5'-30 -1481 Oct 26 j 14:45 21°**2**54'54 opposition max. Earth dist. 6.28073 AU -1487 Nov 02 j 16:47 29°**Υ**32'15 4.13565 AU min. Earth dist. -1486 Jan 01 j 17:09 24°**Y** 22'46 -1481 Oct 28 j 09:25 22°**2**19'07 direct conjunction 0°51'55 -1486 Mar 04 j 10:41 0°**8** -1481 Oct 28 j 09:28 22°**△**19'08 minimum elong 0°51'54 -1486 May 08 j 10:28 13°**8**10'03 -1481 Nov 09 j 22:36 25°**♀**09'52 evening set morning rise -1486 May 16 j 13:24 15°**8** -1481 Dec 01 j 19:32 0°M -1480 Mar 13 j 07:18 13°M 14'34 retrograde -1486 May 22 j 05:00 16°**8**16'41 0°-24'-37 -1480 May 13 j 08:13 8°M21'29 0°50'51 conjunction opposition -1486 May 22 j 05:02 16°**8**16'42 0°24'37 -1480 May 14 j 10:45 8°M 13'00 4.22127 AU minimum elong min. Earth dist. -1486 May 23 j 16:21 16°**8**36'40 6.19694 AU max. Earth dist. direct -1480 Jul 13 j 17:37 3°M25'01 morning rise -1486 Jun 04 j 23:27 19°**8**22'58 -1480 Oct 15 j 20:09 15°M -1486 Jul 25 j 22:12 0°**Ⅱ** evening set -1480 Nov 15 j 19:44 21°M 54'06 retrograde -1486 Oct 08 j 04:05 7°**Ⅱ**45'13 max. Earth dist. -1480 Nov 27 j 07:38 24°M 34'30 6.15959 AU -1486 Dec 06 j 17:49 2°**I**43'45 0°-5'-6 opposition min. Earth dist. -1486 Dec 06 j 02:07 2°**Д**49'03 4.25743 AU -1480 Nov 28 j 11:43 24°M50'53 0°13'55 conjunction -1486 Dec 28 j 05:53 30°R8 -1480 Nov 28 j 11:44 24°M50'54 minimum elong -1485 Jan 08 j 02:03 28°855'09 -1480 Nov 28 j 07:25 24°M48'23 asc. node behind sun begin -1485 Feb 04 j 20:44 27°**8**41'20 -1480 Nov 28 j 16:03 24°M53'24 direct behind sun end -1480 Dec 11 i 04:28 27° ML48'19 -1485 Mar 15 i 22:52 0°**Ⅱ** morning rise evening set -1485 Jun 12 j 03:56 15°**Ⅲ**59'11 -1480 Dec 20 i 17:19 desc. node -1479 Apr 02 j 12:44 16° ₹30'22 -1485 Jun 25 j 18:27 18°**Д**59'09 0°17'49 conjunction retrograde -1479 Apr 18 i 00:38 16° ₹ 52'52 -1485 Jun 25 i 18:26 18° II 59'08 0°17'51 opposition -1479 Jun 17 j 20:41 11° ₹ 56'54 0°-12'-46 minimum elong -1485 Jun 26 j 06:01 19°Д05'32 6.31371 AU min. Earth dist. -1479 Jun 18 j 08:40 11°**₹** 53'01 4.09980 AU max. Earth dist. -1485 Jul 09 j 06:44 21°**Д**57'52 direct -1479 Aug 16 j 22:25 7° **₹** 02'47 morning rise -1485 Aug 16 j 17:51 -1479 Dec 19 j 12:35 26° ₹01'36 000 evening set retrograde -1485 Nov 08 j 11:43 9°9527'23 opposition -1484 Jan 07 j 06:53 4°929'53 0°53'47 conjunction -1478 Jan 01 j 09:28 29° ₹05'15 0°-30'-15 min. Earth dist. -1484 Jan 07 j 07:50 4°529'35 4.35988 AU minimum elong -1478 Jan 01 j 09:26 29° ₹ 05'14 0°30'18 -1478 Jan 01 j 06:40 29° ₹03'35 6.04911 AU -1484 Feb 18 j 17:28 30°RⅡ max. Earth dist. -1484 Mar 08 j 16:49 29°**Ⅲ**26'30 -1478 Jan 05 j 05:21 0°궁 direct -1478 Jan 14 j 08:35 2°る10'15 -1484 Mar 27 j 20:22 0ಂತಾ morning rise -1484 Jul 14 j 04:06 17°521'58 -1478 May 25 j 06:07 22°る10'58 evening set retrograde -1478 Jul 24 j 17:42 17°♂11'11 -1°-15'-3 opposition conjunction -1484 Jul 27 j 10:25 20°\$15'16 0°53'34 min. Earth dist. -1478 Jul 24 j 08:55 17°**⋜**14'05 4.01121 AU minimum elong -1484 Jul 27 j 10:22 20°515'15 0°53'34 direct -1478 Sep 21 j 11:09 12°쥥17'59 max. Earth dist. -1484 Jul 26 j 19:10 20°506'57 6.39372 AU -1477 Jan 17 j 02:57 0°≈ morning rise -1484 Aug 09 j 13:49 23°507'02 evening set -1477 Jan 24 j 03:33 1°≈40'06 -1484 Sep 11 j 13:52 $0^{\circ}\Omega$ -1484 Dec 08 j 01:35 10° **Ω**06'41 -1477 Feb 06 j 07:12 4°≈49'20 -1°-4'-37 retrograde conjunction

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1477 in astronomical counting style is the year 1478 BCE in historical counting style. opposition -1477 Feb 06 i 07:10 4°≈49'18 1°04'38 -1471 Feb 10 i 11:17 9°Ω29'46 1°39'06 minimum elong min. Earth dist. -1477 Feb 07 j 08:29 5.98993 AU -1471 Feb 11 j 06:31 9°**Ω**23'32 4.42126 AU max. Earth dist. 5°≈04'31 -1471 Apr 13 j 22:21 -1477 Feb 19 j 14:11 4°**Ω**26'49 morning rise 8°200'20 direct -1471 Jul 15 j 13:17 15°**Ω** -1477 Mar 21 j 21:36 15°≈ -1477 Jul 01 j 22:00 -1471 Aug 19 j 01:22 22° Ω 09'52 retrograde 28°**≈**28'34 evening set -1°-50'-5 opposition -1477 Aug 30 j 21:56 23°≈25'08 max. Earth dist. -1471 Aug 30 j 08:12 24°**Ω**37'27 6.41840 AU min. Earth dist. -1477 Aug 29 j 20:31 23°**≈**33'43 3.98940 AU -1477 Oct 27 j 21:58 18°**≈**30'38 direct conjunction -1471 Aug 31 j 22:11 24° **Ω**58'13 1°14'44 -1476 Jan 26 j 03:12 0°**)** minimum elong -1471 Aug 31 j 22:10 24° Ω 58'12 1°14'45 evening set -1476 Mar 01 j 03:26 7°**)** € 58'27 morning rise -1471 Sep 13 j 16:10 $27^{\circ}\Omega 45'13$ -1471 Sep 24 j 02:09 0° M -1470 Jan 12 j 01:23 conjunction retrograde 14° Mp 41'44 -1470 Mar 13 j 16:21 minimum elong opposition 9°**m**49'50 1°50'16 max. Earth dist. -1476 Mar 16 j 14:03 11°**)** 38'21 6.00649 AU min. Earth dist. -1470 Mar 14 j 23:07 9°m/39'59 4.40121 AU morning rise -1476 Mar 28 j 05:20 14° **★** 23'43 direct -1470 May 15 j 09:38 4° m 48'24 -1476 Jun 12 j 08:30 $0^{\circ}\Upsilon$ evening set -1470 Sep 18 j 21:57 22° m 36'55 retrograde -1476 Aug 06 j 12:41 4°\bar{`34'24 max. Earth dist. -1470 Sep 29 j 15:58 24° m 59'45 6.36643 AU -1476 Oct 01 j 09:07 30°R € min. Earth dist. -1476 Oct 03 j 19:45 29°\ 40'03 4.04353 AU conjunction -1470 Oct 01 j 13:32 25° m 25'05 1°11'30 opposition -1476 Oct 05 j 03:18 29° **€**29'18 -1°-42'-20 minimum elong -1470 Oct 01 j 13:33 25° m 25'06 direct -1476 Dec 02 j 05:53 24° ¥ 32'01 morning rise -1470 Oct 14 j 02:51 28° m 12'21 -1475 Jan 31 i 00:17 $0^{\circ}\Upsilon$ -1470 Oct 22 i 06:49 0∘**⊽** evening set -1475 Apr 07 j 07:30 13°**Y**44'08 retrograde -1469 Feb 13 i 01:56 15° **2**35'57 opposition -1469 Apr 15 i 00:22 10°**£**44'11 1°30'50 conjunction $-1475 \text{ Apr } 21 \text{ j } 00:50 \quad 16^{\circ} \Upsilon 54'48 \quad 0^{\circ} -56' -15$ min. Earth dist. -1469 Apr 16 j 09:39 10°**♀**33'35 4.32048 AU -1475 Apr 21 j 00:54 16°**Y**54'50 -1469 Jun 16 j 06:51 5°**-**45'15 minimum elong 0°56'16 direct -1475 Apr 23 j 01:32 17°**Υ**23'01 -1469 Oct 20 j 00:58 23°**♀**52'01 max. Earth dist. 6.09287 AU evening set -1475 May 04 j 19:53 20° Υ 06'04 max. Earth dist. -1469 Oct 30 j 20:05 26°**£**19'13 morning rise 6.26334 AU -1475 Jun 19 j 13:39 0° 8 -1475 Sep 10 j 02:10 9°**8**23'00 -1469 Nov 01 j 15:03 26°**♀**43'43 retrograde conjunction 0°47'35 -1475 Nov 07 j 10:56 -1469 Nov 01 j 15:06 26°**Ω**43'44 min. Earth dist. 4°**8**28'16 4.15244 AU minimum elong 0°47'34 -1475 Nov 08 j 14:27 -1469 Nov 14 j 04:37 29°**△**35'20 4°**8**18'54 0°-57'-39 opposition morning rise -1475 Dec 17 j 06:10 30°₹**Υ** -1469 Nov 16 j 00:12 0°M -1474 Jan 06 j 14:33 29°**Y**18'31 -1468 Feb 03 j 14:39 15°M direct -1474 Jan 27 j 04:25 0°**8** -1468 Mar 18 j 01:35 17° ML 48'29 retrograde -1474 Apr 29 j 19:13 15°**8** -1468 May 01 j 04:14 15°RM -1474 May 13 j 10:39 18°**8**01'26 -1468 May 18 j 00:47 12° ML 55'05 0° 43'03 evening set opposition min. Earth dist. -1468 May 19 j 03:15 12°M 46'37 4.20075 AU conjunction -1474 May 27 j 05:01 21°807'11 0°-18'-43 direct -1468 Jul 18 j 06:34 7°M58'54 minimum elong -1474 May 27 j 05:02 21°**8**07'11 0°18'43 -1468 Sep 26 j 19:36 15°M max. Earth dist. -1474 May 28 j 14:32 21°**8**26'04 6.21578 AU evening set -1468 Nov 20 j 06:54 26°M33'36 -1474 Jun 09 j 22:47 24°**8**12'23 morning rise -1474 Jul 06 j 14:36 0°**П** -1468 Dec 02 j 23:36 29°M31'36 0°08'00 conjunction -1474 Oct 12 j 16:34 12°**Ц**25'31 -1468 Dec 02 j 23:37 29°M31'36 retrograde minimum elong -1474 Nov 18 j 00:35 10°**Ⅱ**19'41 -1468 Dec 02 j 16:26 29°M27'25 asc. node behind sun begin -1468 Dec 03 i 06:48 29° ML35'47 opposition -1474 Dec 11 i 06:09 7°**II**24'38 0°03'39 behind sun end min. Earth dist. -1474 Dec 10 i 16:35 7°**П**29'12 4.27661 AU max. Earth dist. -1468 Dec 01 j 21:48 29° ML 16'29 6.13783 AU direct -1473 Feb 09 i 14:25 2°**Ⅱ**22'04 -1468 Dec 05 i 00:05 0°**√** evening set -1473 Jun 16 j 21:20 20° **II** 34'57 morning rise -1468 Dec 15 i 17:10 2°×30'19 desc. node -1467 Feb 12 i 02:54 14° ₹ 53'09 -1473 Jun 30 j 10:44 23°**Ⅲ**33'43 0°23'26 retrograde -1467 Apr 23 j 01:08 21° ₹ 45'21 conjunction -1473 Jun 30 j 10:43 23°**Ⅲ**33'42 0°23'28 -1467 Jun 22 j 20:23 16° **4**8'56 0°-21'-53 minimum elong opposition -1473 Jun 30 j 18:40 23°**Д**38'05 6.33172 AU min. Earth dist. -1467 Jun 23 j 05:35 16° **₹** 45'58 4.07873 AU max. Earth dist. -1467 Aug 21 j 16:03 11° ₹ 55'04 morning rise -1473 Jul 13 j 21:52 26° **Ⅲ**31'12 direct -1473 Jul 30 j 01:28 0ಂತಾ -1467 Dec 20 j 02:27 0°궁 retrograde -1473 Nov 12 j 17:28 13°953'34 evening set -1467 Dec 24 j 08:09 1°る00'12 opposition -1472 Jan 11 j 14:39 8°**9**56'34 1°00'46 -1472 Jan 11 j 17:27 8°**©**55'39 -1466 Jan 06 j 05:54 4°る05'03 0°-35'-54 min. Earth dist. 4.37557 AU conjunction -1466 Jan 06 j 05:52 4°**ට**5'01 direct -1472 Mar 13 j 04:21 3°€53'07 minimum elong 0°35'57 -1472 Jul 18 j 14:45 21°544'40 -1466 Jan 06 j 06:18 4°**る**05'17 evening set max. Earth dist. 6.03056 AU -1466 Jan 19 j 06:14 7°**る**11'24 morning rise conjunction -1472 Jul 31 j 19:50 24°536'57 0°57'20 retrograde -1466 May 30 j 13:31 27°る20'55 minimum elong -1472 Jul 31 j 19:47 24°536'55 0°57'21 opposition -1466 Jul 29 j 22:42 22°중20'31 -1°-22'-2 max. Earth dist. -1472 Jul 31 j 02:25 24°527'27 6.40585 AU min. Earth dist. -1466 Jul 29 j 11:05 22°**♂**24'23 3.99719 AU morning rise -1472 Aug 13 j 21:43 27°527'38 direct -1466 Sep 26 j 12:34 17°중27'14 -1472 Aug 25 j 18:02 0°**Ω** -1466 Dec 30 j 12:59

-1465 Jan 29 j 07:12

evening set

6°≈53'49

-1472 Dec 12 j 05:24 14° Ω 23'29

retrograde

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1465 in astronomical counting style is the year 1466 BCE in historical counting style. -1465 Feb 11 j 12:13 10°≈03'59 -1°-7'-38 -1460 Aug 09 j 16:59 $0^{\circ}\Omega$ conjunction -1465 Feb 11 j 12:10 10°≈03'57 -1460 Aug 18 j 07:04 minimum elong 1°07'40 morning rise 1°**Ω**51'53 -1465 Feb 12 j 19:11 10°≈22'35 5.98182 AU -1460 Oct 27 j 01:02 max. Earth dist. 15°**Ω** -1460 Dec 16 j 12:17 -1465 Feb 24 j 20:18 13°≈15'51 18°**Ω**45'54 morning rise retrograde -1459 Feb $06 \text{ j } 00.55 \text{ } 15^{\circ}\text{R}\Omega$ -1465 Mar 04 j 03:59 15°≈ -1459 Feb 14 j 19:52 -1465 May 18 j 08:24 0°**∀** opposition 13°**Ω**52'30 1°42'26 -1465 Jul 07 j 06:14 retrograde 3°**)** 46′27 min. Earth dist. -1459 Feb 15 j 17:00 13°**Ω**45'40 4.42322 AU -1465 Aug 26 j 11:52 30°R≈ direct -1459 Apr 18 j 08:07 8°**Ω**49'40 min. Earth dist. -1465 Sep 04 j 00:28 28°≈51'43 3.98833 AU -1459 Jun 25 j 15:21 15°**Ω** opposition -1465 Sep 05 j 03:32 28°**≈**42'34 -1°-51'-36 evening set -1459 Aug 23 j 09:55 26°**Ω**32'29 direct -1465 Nov 02 j 02:06 23°**≈**47'45 max. Earth dist. -1459 Sep 03 j 14:58 $28^{\circ}\Omega$ 59'17 6.41515 AU -1464 Jan 04 j 13:00 0°**)**€ evening set -1464 Mar 06 j 11:22 13°**米** 15'52 conjunction -1459 Sep 05 j 05:51 29° Ω 20'35 1°15'33 minimum elong -1459 Sep 05 j 05:51 29°**Ω**20′35 1°15'33 conjunction -1464 Mar 19 j 23:51 16° **★** 28'00 -1°-13'-31 -1459 Sep 08 j 05:47 minimum elong -1464 Mar 19 j 23:52 16°**米**28'00 1°13'31 morning rise -1459 Sep 17 j 22:48 2° m 07'20 max. Earth dist. -1464 Mar 22 j 00:24 16°**¥**56'46 6.01222 AU retrograde -1458 Jan 16 j 11:14 19° Mp 06'07 morning rise -1464 Apr 02 j 15:22 19°**)** 41′30 opposition -1458 Mar 18 j 03:27 14° m/ 14'23 -1464 May 19 j 06:01 $0^{\circ}\Upsilon$ min. Earth dist. -1458 Mar 19 j 11:19 14° mp 04'13 4.39298 AU retrograde -1464 Aug 11 j 13:41 9°Y46'50 direct -1458 May 19 j 20:10 9°**m** 13'19 min. Earth dist. -1464 Oct 08 j 19:39 4°**Υ**52'47 4.05525 AU evening set -1458 Sep 23 j 06:23 27° mp 03'53 opposition -1464 Oct 10 i 04:34 4°**Y**41'33 -1°-37'-43 max. Earth dist. -1458 Oct 03 j 21:51 29° m 25'50 6.35377 AU -1464 Nov 24 i 20:30 30°R ★ direct -1464 Dec 07 i 08:51 29° \(\frac{1}{4}\)43'45 conjunction -1458 Oct 05 j 21:24 29° m 52'21 1°09'18 -1464 Dec 19 j 23:33 $0^{\circ}\Upsilon$ minimum elong -1458 Oct 05 j 21:26 29° m 52'22 1°09'18 -1463 Apr 12 j 13:35 18°**Y**52'11 -1458 Oct 06 j 11:07 0∘**⊽** evening set -1458 Oct 18 j 10:40 2°**£**40'05 morning rise -1463 Apr 26 j 07:29 22°**Υ**'02'19 0°-51'-41 -1457 Feb 17 j 18:52 20° **2**09'49 conjunction retrograde -1463 Apr 26 j 07:32 22°**Y**°02'21 0°51'41 opposition -1457 Apr 19 j 16:53 15°**£**17'55 1°25'37 minimum elong -1463 Apr 28 j 07:51 22°**Υ**30'15 6.10938 AU -1457 Apr 21 j 02:14 15° **2**07'18 4.30407 AU max. Earth dist. min. Earth dist. -1463 May 10 j 02:37 25°**Y**12'51 -1457 Jun 20 j 20:42 10°**△**19'21 direct morning rise -1457 Oct 24 j 12:07 28°**♀**30'09 -1463 May 31 j 10:41 0°**8** evening set -1463 Sep 14 j 21:40 14°**8**20'16 -1457 Oct 31 j 01:57 retrograde 0°M -1463 Nov 12 j 07:43 9°**8**25'05 4.17134 AU -1457 Nov 04 j 09:57 min. Earth dist. max. Earth dist. 0°**ጤ**59'28 6.24471 AU -1463 Nov 13 j 09:13 opposition 9°**8**16'24 0°-49'-18 -1457 Nov 06 j 02:34 direct -1462 Jan 11 j 14:33 4°**8**15'35 conjunction 1°M22'43 0°42'43 -1457 Nov 06 j 02:36 -1462 Apr 11 j 14:50 15°**8** minimum elong 1°M22'45 0°42'41 evening set -1462 May 18 j 11:05 22°**8**53'12 morning rise -1457 Nov 18 j 16:23 4°ML15'17 -1456 Jan 08 j 15:55 15° M conjunction -1462 Jun 01 j 05:03 25°**8**57'54 0°-12'-38 retrograde -1456 Mar 23 j 00:46 22°M37'22 -1462 Jun 01 j 05:03 25°**8**57'55 0°12'38 -1456 May 23 j 00:02 17° ML43'42 0°34'28 minimum elong opposition -1462 May 31 j 23:55 25°855'02 min. Earth dist. -1456 May 24 j 00:16 17° M 35'57 4.18125 AU behind sun begin behind sun end -1462 Jun 01 j 10:12 26°800'47 -1456 Jun 14 j 14:10 15°RM max. Earth dist. -1462 Jun 02 j 11:59 26°**8**15'15 6.23532 AU -1456 Jul 23 j 00:34 12°ML48'01 direct -1462 Jun 14 j 22:07 29°**8**01'57 -1456 Aug 29 j 22:45 15°M morning rise -1462 Jun 19 i 06:48 0°**Ⅱ** -1456 Nov 18 i 17:04 0°**∡**¹ asc. node -1462 Sep 26 j 21:32 16°**Д**26'05 evening set -1456 Nov 25 i 00:13 1°×727'44 -1462 Oct 17 j 02:53 17°**Д**05'56 retrograde opposition -1462 Dec 15 j 18:33 12°**Ⅲ**05'31 0°12'28 conjunction -1456 Dec 07 i 17:21 4°**х** 26'45 0°01'40 minimum elong min. Earth dist. -1462 Dec 15 j 06:25 12°Д09'35 4.29492 AU -1456 Dec 07 i 17:21 4°**х** 26'45 0°01'39 behind sun begin direct -1461 Feb 14 j 06:26 7°**Ⅲ**02'41 -1456 Dec 07 j 09:20 4°×22'03 -1461 Jun 21 j 15:00 25°**Ⅱ**11'08 behind sun end -1456 Dec 08 j 01:23 4°×31'27 evening set 4° **₹**13'04 6.11931 AU max. Earth dist. -1456 Dec 06 j 18:05 conjunction -1461 Jul 05 j 03:17 28°**Ⅲ**08'47 0°28'59 morning rise -1456 Dec 20 j 11:51 7°**х** 26′40 7°**∡**¹50′08 minimum elong -1461 Jul 05 j 03:15 28° **I** 08'46 0°29'00 desc. node -1456 Dec 22 j 04:03 max. Earth dist. -1461 Jul 05 j 07:04 28° **I**I 10′52 6.34737 AU retrograde -1455 Apr 28 j 07:42 26° ₹ 51'01 -1461 Jul 13 j 13:59 opposition -1455 Jun 28 j 01:40 21°**尽** 54'07 0°-31'-22 0.ಎ -1461 Jul 18 j 13:09 min. Earth dist. -1455 Jun 28 j 07:40 21°**尽** 52'09 morning rise 1°905'05 4.06297 AU -1461 Nov 17 j 02:13 18°521'29 -1455 Aug 26 j 16:58 17°**尽** 00'29 retrograde direct -1460 Jan 15 j 23:43 13°525'01 0°궁 opposition 1°07'35 -1455 Dec 02 j 17:18 6°る09'49 min. Earth dist. -1460 Jan 16 j 05:43 13°523'02 4.38744 AU evening set -1455 Dec 29 j 08:28 -1460 Mar 17 j 18:00 8°**9**21'34 direct evening set -1460 Jul 23 j 02:33 26°510'28 conjunction -1454 Jan 11 j 07:17 9°**ප**15'36 0°-41'-33 max. Earth dist. -1460 Aug 04 j 08:58 28°550'19 6.41283 AU minimum elong -1454 Jan 11 j 07:14 9°**る**15'35 0°41'36 max. Earth dist. -1454 Jan 11 j 13:38 9°**る**19'25 6.01934 AU -1460 Aug 05 j 06:23 29°501'58 -1454 Jan 24 j 08:32 12°₹22'54 conjunction morning rise

-1454 Apr 24 j 11:51

-1460 Aug 05 j 06:20 29°501'56

minimum elong

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1454 in astronomical counting style is the year 1455 BCE in historical counting style. opposition retrograde -1454 Jun 04 j 23:54 2°≈37'48 -1448 Jan 20 j 06:31 17°5548'33 1°13'51 -1454 Jul 16 j 13:00 30°R 궁 min. Earth dist. -1448 Jan 20 j 14:17 17°5546'00 4.39449 AU opposition -1454 Aug 04 j 06:23 27°₹36'55 -1°-28'-35 -1448 Mar 22 j 02:47 12°5045'07 direct -1454 Aug 03 j 16:14 27°**정**41'38 3.99214 AU -1448 Jul 24 j 23:14 min. Earth dist. $0^{\circ}\Omega$ -1454 Oct 01 j 16:51 22°る43'38 -1448 Jul 27 j 12:36 direct evening set 0°**£**33′05 -1454 Dec 10 j 01:27 0°≈ 1°04'06 evening set -1453 Feb 03 j 12:52 12°≈11'15 conjunction -1448 Aug 09 j 15:12 3°**£**23′59 -1448 Aug 09 j 15:10 $3^{\circ}\Omega 23'58$ -1453 Feb 15 j 06:28 15°**≈** minimum elong 1°04'07 max. Earth dist. -1448 Aug 08 j 14:24 3°**Ω**10′29 6.41479 AU conjunction -1453 Feb 16 j 18:44 15°≈21'46 -1°-10'-13 morning rise -1448 Aug 22 j 14:44 6°**Ω**13'22 minimum elong -1453 Feb 16 j 18:42 15°≈21'45 1°10'15 -1448 Oct 04 j 15:33 15°**Ω** -1453 Feb 18 j 04:24 15°≈41'59 -1448 Dec 20 j 20:02 23° Ω 07'13 max. Earth dist. 5.98310 AU retrograde -1447 Feb 19 j 03:51 18° Ω 14'11 1°45'10 morning rise -1453 Mar 02 j 04:03 18°**≈**34'03 opposition -1453 Apr 22 j 17:46 0°**)**€ min. Earth dist. -1447 Feb 20 j 03:38 18°**Ω**06'31 4.42023 AU retrograde -1453 Jul 12 j 10:36 9°\ 02'56 -1447 Mar 18 j 12:22 15°RΩ min. Earth dist. -1453 Sep 09 j 02:36 4°**)**€08'43 3.99606 AU direct -1447 Apr 22 j 18:19 13°**Ω**11'33 3°**)** €58'41 opposition -1453 Sep 10 j 08:13 -1°-52'-13 -1447 May 28 j 04:49 15°**Ω** -1453 Oct 14 j 19:12 30°R≈ -1447 Aug 23 j 11:38 direct -1453 Nov 07 j 05:56 29°≈03'31 evening set -1447 Aug 27 j 18:08 0° m 55'36 0°**)**€ -1453 Nov 30 j 19:21 max. Earth dist. -1447 Sep 07 j 19:37 3° m 20'49 6.40726 AU evening set -1452 Mar 11 j 17:35 18° **\(28**'52 conjunction -1447 Sep 09 i 13:14 3° mp 43'40 1°15'56 conjunction -1452 Mar 25 i 07:01 21° ¥ 40'47 -1°-11'-56 minimum elong -1447 Sep 09 i 13:14 3° m 43'40 1°15'56 minimum elong -1452 Mar 25 i 07:03 21°\(\dagger40'48\) 1°11'57 morning rise -1447 Sep 22 j 05:34 6° m 30'27 max. Earth dist. -1452 Mar 27 j 09:14 22° **升** 10'26 6.02552 AU retrograde -1446 Jan 20 j 22:32 23° m 33'01 -1452 Apr 07 j 23:06 24° ¥ 53'55 -1446 Mar 22 j 15:35 18° mp 41'19 1°47'50 morning rise opposition -1452 Apr 30 j 05:07 $0^{\circ}\Upsilon$ -1446 Mar 23 j 23:43 18° m 31'03 4.38093 AU min. Earth dist. -1452 Aug 16 j 13:06 14°**Υ**'51'20 -1446 May 24 j 06:44 retrograde direct 13° m 40'32 -1452 Oct 13 j 18:54 9°**Υ**56'54 4.07241 AU -1446 Sep 20 j 12:48 0∘**⊽** min. Earth dist. -1452 Oct 15 j 02:32 9°**Y**46′05 -1°-32'-30 -1446 Sep 27 j 15:29 1°**£**34'07 opposition evening set -1452 Dec 12 j 10:53 4°**Υ**47'49 -1446 Oct 08 j 08:30 direct max. Earth dist. 3°**£**57'25 6.33862 AU -1451 Apr 17 j 16:01 23°**Y**51'08 evening set -1446 Oct 10 j 06:19 4°**£**23'04 1°06'39 conjunction -1451 May 01 j 10:13 27° \begin{pmatrix} \gamma 00' -36' -54 \end{pmatrix} -1446 Oct 10 j 06:22 4°**£**23'06 conjunction minimum elong 1°06'39 -1451 May 01 j 10:17 27° Υ 00'35 0° 46'53 -1446 Oct 22 j 19:18 minimum elong morning rise 7°**£**11'20 -1451 May 03 j 09:25 27°**Υ**27'40 6.12884 AU -1445 Feb 22 j 12:25 24°**£**47'53 max. Earth dist. retrograde -1451 May 14 j 11:28 0°**8** -1445 Apr 24 j 11:05 19°**⊆**55'51 1°19'48 opposition morning rise -1451 May 15 j 05:22 0°810'12 min. Earth dist. -1445 Apr 25 j 19:38 19°**£**45'30 4.28678 AU -1451 Jul 29 j 05:01 15°**8** direct -1445 Jun 25 j 11:52 14°**♀**57'45 retrograde -1451 Sep 19 j 10:49 19°**8**07'34 -1445 Oct 14 j 18:29 0°M -1451 Nov 11 j 02:03 15°**₹**8 evening set -1445 Oct 29 j 01:02 3°M12'31 -1451 Nov 17 j 23:33 14°804'07 0°-40'-56 max. Earth dist. -1445 Nov 09 j 00:00 5°M43'10 6.22679 AU opposition min. Earth dist. -1451 Nov 16 j 23:02 14°**8**12'26 4.19112 AU -1450 Jan 16 j 07:57 9°**8**02'56 -1445 Nov 10 j 15:32 6°**™**05'53 0°37'30 direct conjunction -1450 Mar 21 j 17:17 15°8 -1445 Nov 10 j 15:34 6°M05'54 minimum elong 0°37'29 evening set -1450 May 23 j 07:19 27°**8**35'33 morning rise -1445 Nov 23 i 05:58 8°M59'25 -1450 Jun 03 i 02:29 $0^{\circ}\Pi$ -1445 Dec 20 i 07:08 15°M retrograde -1444 Mar 28 j 01:18 27° ML 29'57 -1450 Jun 06 i 00:40 0°**І**39'14 0°-6'-41 conjunction opposition -1444 May 28 i 00:34 22° M35'50 0°25'31 minimum elong -1450 Jun 06 i 00:40 0°II39'14 0°06'41 min. Earth dist. -1444 May 28 j 22:03 22°M28'57 4.16395 AU behind sun begin -1450 Jun 05 j 16:55 0°**Ⅲ**34'55 direct -1444 Jul 27 j 20:54 17° ML40'26 behind sun end -1450 Jun 06 j 08:26 0°**Ⅱ**43'33 desc. node -1444 Oct 31 j 02:29 29° ML41'43 max. Earth dist. -1450 Jun 07 j 02:32 0°**П**53'41 6.25381 AU -1444 Nov 01 j 12:26 0°×7 3°**Ⅱ**42'10 morning rise -1450 Jun 19 j 17:03 evening set -1444 Nov 29 j 18:23 6°**х** 24′06 asc. node -1450 Aug 07 j 03:10 13°**II**43'22 retrograde -1450 Oct 21 j 12:18 21°**II**38'07 conjunction -1444 Dec 12 j 12:19 9°**х** 24'05 0°-4'-49 -1450 Dec 20 j 03:46 16°ДЗ8'15 0°20'54 9°**х¹**24′04 opposition minimum elong -1444 Dec 12 j 12:19 0°04'51 -1450 Dec 19 j 19:17 16°**Д**41'06 4.31057 AU behind sun begin -1444 Dec 12 j 04:29 9°**√**19'28 min. Earth dist.

-1444 Dec 12 j 20:09

-1444 Dec 11 j 18:23

-1443 Mar 28 j 21:43

-1443 May 03 j 14:43

-1443 Jun 08 j 09:44

-1444 Dec 25 j 07:30 12°**尽** 24'59

-1443 Jul 03 j 06:54 26°**尽** 59'23

-1443 Jul 03 j 10:20 26° ₹ 58'16

-1443 Aug 31 j 18:06 22° ₹05'56

behind sun end

max. Earth dist.

morning rise

retrograde

opposition

direct

min. Earth dist.

9°×28'40

9°**х** 13′30

1°る56'50

0°ಕ

30°R*X*

6.10430 AU

0°-40'-38

4.05162 AU

-1449 Feb 18 j 21:07 11°**Ⅲ**35'15

-1449 Jun 26 j 05:02 29° **1**40′19

-1449 Nov 21 j 06:40 22°544'33

0ಂತಾ

2°**©**37'05

2°937'03

2°**©**37'17

5°532'24

0°34'13

0°34'14

6.35893 AU

-1449 Jun 27 j 17:12

-1449 Jul 09 j 16:22

-1449 Jul 09 j 16:20

-1449 Jul 09 j 16:45

-1449 Jul 23 j 00:56

direct

evening set

conjunction

minimum elong

max. Earth dist.

morning rise

retrograde

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, page 41 Attention, astronomical year style is used: The year -1443 in astronomical counting style is the year 1444 BCE in historical counting style.

Attention, astronom	ical year style is used: The		in astronomical co	unting style is the year	1444 BCE in historical	counting style	
	-1443 Nov 13 j 03:50			conjunction	-1437 Jul 14 j 05:47	7° © 05'57	0°39'16
evening set	-1442 Jan 03 j 08:33	11° る 17'44		minimum elong	-1437 Jul 14 j 05:44	7° © 05'56	0°39'17
				max. Earth dist.	-1437 Jul 14 j 01:05	7° © 03'23	6.36797 AU
conjunction	-1442 Jan 16 j 08:04		0°-46'-52	morning rise	-1437 Jul 27 j 13:18	10°9500'27	
minimum elong	-1442 Jan 16 j 08:01	14° ろ 24'08	0°46'53	retrograde	-1437 Nov 25 j 14:54	27° © 09'18	
max. Earth dist.	-1442 Jan 16 j 17:22		6.01236 AU	opposition	-1436 Jan 24 j 14:38		1°19'46
morning rise	-1442 Jan 29 j 10:32			min. Earth dist.	-1436 Jan 25 j 01:41		4.39953 AU
	-1442 Mar 27 j 11:51	0° ≈		direct	-1436 Mar 26 j 14:54		
retrograde	-1442 Jun 10 j 05:10	7°≈50'36	10.24.22		-1436 Jul 08 j 10:33	0° Ω	
opposition	-1442 Aug 09 j 12:05	2°≈49'08	-1°-34'-22	evening set	-1436 Jul 31 j 23:14	4° Ω 57'55	C 41524 ATT
min. Earth dist.	-1442 Aug 08 j 18:27	2°≈55'01	3.99048 AU	max. Earth dist.	-1436 Aug 12 j 21:59	/°8 1 33'44	6.41534 AU
direct	-1442 Sep 01 j 02:16 -1442 Oct 06 j 19:17			agnismation	1426 Aug 14 : 00:52	70 0 40122	1906150
direct	-			conjunction	-1436 Aug 14 j 00:52		1°06'58
	-1442 Nov 11 j 05:11 -1441 Jan 29 j 14:36	0°≈ 15°22		minimum elong morning rise	-1436 Aug 14 j 00:50 -1436 Aug 26 j 23:11	7° Ω 48'22 10° Ω 37'17	1°06'58
evening set	-1441 Jan 29 j 14:50 -1441 Feb 08 j 16:54			morning rise	-1436 Sep 16 j 13:53		
evening set	-1441 FC0 08 j 10.54	17 23 20		retrograde	-1436 Dec 25 j 03:33		
conjunction	-1441 Feb 21 j 23:55	20°\$\alpha 34'00	_1°_12'_13	opposition	-1435 Feb 23 j 13:27		1°47'23
minimum elong	-1441 Feb 21 j 23:53		1°12'14	min. Earth dist.	-1435 Feb 24 j 13:44		4.41667 AU
max. Earth dist.	-1441 Feb 23 j 13:21		5.98676 AU	direct	-1435 Apr 27 j 03:45		4.41007 710
morning rise	-1441 Mar 07 j 10:06		2.90070710	ancet	-1435 Aug 06 j 20:31	0°m)	
morning not	-1441 Apr 03 j 07:39	0° \		evening set	-1435 Sep 01 j 03:21	5° Mp 21'47	
retrograde	-1441 Jul 17 j 14:40			max. Earth dist.	-1435 Sep 12 j 03:23	7° Mp 46'35	6.39995 AU
min. Earth dist.	-1441 Sep 14 j 04:41	9°) 18′21	4.00469 AU		j	, , , , , , , , , , , , , , , , , , , ,	
opposition	-1441 Sep 15 j 10:15	9°) 08'19	-1°-51'-57	conjunction	-1435 Sep 13 j 21:35	8° m 09'48	1°15'54
direct	-1441 Nov 12 j 09:39	4°) 12'45		minimum elong	-1435 Sep 13 j 21:35	8° mp 09'48	1°15'54
evening set	-1440 Mar 16 j 21:55	23°) €35'24		morning rise	-1435 Sep 26 j 13:11	10° m 56'37	
•	·			retrograde	-1434 Jan 25 j 11:31	28° m 02'50	
conjunction	-1440 Mar 30 j 12:15	26°) €47'08	-1°-9'-52	opposition	-1434 Mar 27 j 05:09	23° Mp 11'16	1°45'41
minimum elong	-1440 Mar 30 j 12:18	26°) 47′10	1°09'53	min. Earth dist.	-1434 Mar 28 j 14:11	23° Mp 00'44	4.37047 AU
max. Earth dist.	-1440 Apr 01 j 15:27	27°) 17′15	6.03826 AU	direct	-1434 May 28 j 20:03	18° m 10'56	
morning rise	-1440 Apr 13 j 05:05	29° ∺ 59'59			-1434 Sep 03 j 15:35	0∘ ⊽	
	-1440 Apr 13 j 05:05	0° Υ		evening set	-1434 Oct 02 j 01:21	6° £ 06'47	
retrograde	-1440 Aug 21 j 08:51	19° Ƴ 49'46		max. Earth dist.	-1434 Oct 12 j 17:47	8° ≏ 30'17	6.32596 AU
opposition	-1440 Oct 19 j 22:13	14° Y 44'40	-1°-26'-46				
min. Earth dist.	-1440 Oct 18 j 14:35		4.08794 AU	conjunction	-1434 Oct 14 j 15:51	8° ≏ 56'08	1°03'38
direct	-1440 Dec 17 j 08:11	9° Ƴ 45'59		minimum elong	-1434 Oct 14 j 15:53		1°03'37
evening set	-1439 Apr 22 j 16:55			morning rise	-1434 Oct 27 j 04:52		
	-1439 Apr 28 j 04:10	9° 8		retrograde	-1433 Feb 27 j 05:53		
		4 . 4		opposition	-1433 Apr 29 j 05:47		
conjunction	-1439 May 06 j 11:16	1° 8 53'55	0°-41'-51	min. Earth dist.	-1433 Apr 30 j 12:18		4.27277 AU
minimum elong	-1439 May 06 j 11:19	1° 8 53'56	0°41'52	direct	-1433 Jun 30 j 03:06		
max. Earth dist.	-1439 May 08 j 06:48	2°818'50	6.14585 AU		-1433 Sep 27 j 04:57	0°M	
morning rise	-1439 May 20 j 06:29	5° 8 02'49		evening set	-1433 Nov 02 j 13:28	7°M55'07	C 21202 ATT
. 1	-1439 Jul 05 j 23:47			max. Earth dist.	-1433 Nov 13 j 16:52	10°M28'46	6.21282 AU
retrograde opposition	-1439 Sep 24 j 00:40 -1439 Nov 22 j 13:11	23° 8 51'29 18° 8 48'27	0°-32'-26	agnismation	-1433 Nov 15 j 04:19	100 m 40412	0922107
min. Earth dist.	-1439 Nov 22 j 15.11 -1439 Nov 21 j 15:27	18° 8 55'50	4.20780 AU	conjunction minimum elong	-1433 Nov 15 j 04:19		0°32'07 0°32'06
ann. Barui uist.	-1439 Nov 21 j 13.27 -1439 Dec 24 j 16:48	15°R 8	4.20/00 AU	morning rise	-1433 Nov 13 j 04.21 -1433 Nov 27 j 19:02		0 54 00
direct	-1438 Jan 21 j 02:31	13° 8 46'57		morning rise	-1433 Dec 03 j 09:05		
direct	-1438 Feb 17 j 20:16				-1432 Feb 22 j 11:59	0° √ 7	
	-1438 May 17 j 19:52	0° I I		retrograde	-1432 Apr 02 j 01:55	2° ₹ 121'09	
evening set	-1438 May 28 j 02:54	2° Ⅱ 15'42		ronogrado	-1432 May 12 j 00:57		
				opposition	-1432 Jun 02 j 00:25		0°16'31
conjunction	-1438 Jun 10 j 19:51	5° Ⅱ 18'33	0°00'-41	min. Earth dist.	-1432 Jun 02 j 20:08		4.15088 AU
minimum elong	-1438 Jun 10 j 19:52	5° Ⅱ 18'34	0°00'40	direct	-1432 Aug 01 j 17:19		
behind sun begin	-1438 Jun 10 j 11:33	5° Ⅱ 13'57		desc. node	-1432 Sep 10 j 06:32		
behind sun end	-1438 Jun 11 j 04:11	5° Ⅲ 23'10			-1432 Oct 13 j 02:42	0° ∡ 7	
max. Earth dist.	-1438 Jun 11 j 19:24	5° Ⅱ 31'40	6.26904 AU	evening set	-1432 Dec 04 j 11:22		
asc. node	-1438 Jun 17 j 04:22	6° Ⅱ 43'29		Ç	,		
morning rise	-1438 Jun 24 j 11:18	8° Ⅱ 20'29		conjunction	-1432 Dec 17 j 05:44	14° ∡ 18′29	0°-11'00
retrograde	-1438 Oct 25 j 19:59	26° Ⅱ 09'38		minimum elong	-1432 Dec 17 j 05:43	14° ∡ 18′28	0°11'03
opposition	-1438 Dec 24 j 12:58		0°29'12	behind sun begin	-1432 Dec 16 j 23:37	14° ∡ 14'53	
min. Earth dist.	-1438 Dec 24 j 06:09	21° Ⅱ 12'39	4.32321 AU	behind sun end	-1432 Dec 17 j 11:49	14° ∡ °22′03	
direct	-1437 Feb 23 j 09:23	16° Ⅱ 07'17		max. Earth dist.	-1432 Dec 16 j 14:09	14° ₹ 09'17	6.09325 AU
	-1437 Jun 11 j 07:07	0ං ව		morning rise	-1432 Dec 30 j 01:51		
evening set	-1437 Jun 30 j 19:41	4°9510'02			-1431 Feb 27 j 08:41	0°₹	

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1431 in astronomical counting style is the year 1432 BCE in historical counting style. -1431 May 08 j 17:00 6°る58'09 direct -1425 Feb 27 j 22:58 20° **II** 37'50 retrograde -1431 Jul 08 j 09:28 2°**る**00'06 0°-49'-22 -1425 May 24 j 08:50 opposition 000 min. Earth dist. -1431 Jul 08 j 09:10 2°る00'12 4.04369 AU -1425 Jul 05 j 09:31 8°938'43 evening set -1431 Jul 24 j 04:09 30°R **✗** 7 -1431 Sep 05 j 15:47 27°**∡**¹06'44 direct conjunction -1425 Jul 18 j 18:40 11°533'53 0°44'01 -1425 Jul 18 j 18:37 11°533'52 -1431 Oct 18 j 06:14 0°₹ minimum elong 0°44'03 -1425 Jul 18 j 12:22 -1430 Jan 08 j 06:22 16°**♂**20'06 11°**©**30'27 evening set max. Earth dist. 6.37549 AU -1425 Aug 01 j 00:46 14°**©**27'32 morning rise conjunction -1430 Jan 21 j 06:50 19°₹27'06 0°-51'-40 -1425 Oct 29 j 06:30 0 $^{\circ}\Omega$ minimum elong -1430 Jan 21 j 06:47 19°₹27'04 0°51'42 retrograde -1425 Nov 29 j 20:46 1°**Ω**33'25 max. Earth dist. -1430 Jan 21 j 20:50 19°₹35'30 6.00820 AU -1425 Dec 31 j 11:14 30°**Ŗ** -1430 Feb 03 j 10:05 22°♂35'43 morning rise opposition -1424 Jan 28 j 22:37 26°538'22 1°25'11 -1424 Jan 29 j 10:38 26°534'27 -1430 Mar 07 j 15:17 0°≈ min. Earth dist. 4.40408 AU retrograde -1430 Jun 15 j 09:23 12°≈56'22 direct -1424 Mar 31 j 00:57 21°935'05 opposition -1430 Aug 14 j 14:19 7°**≈**54'23 -1°-39'-13 -1424 Jun 20 j 04:04 $0^{\circ}\Omega$ min. Earth dist. -1430 Aug 13 j 19:43 8°≈00'37 3.99064 AU evening set -1424 Aug 05 j 09:42 9°**Ω**21'46 direct -1430 Oct 11 j 20:38 3°≈00'43 max. Earth dist. -1424 Aug 17 j 03:48 11°**Ω**55'13 6.41637 AU -1429 Jan 12 j 06:34 15°≈ evening set -1429 Feb 13 j 17:58 22°≈28'01 conjunction -1424 Aug 18 j 10:00 12° Ω 11'41 1°09'25 minimum elong -1424 Aug 18 j 09:58 12°**Ω**11'40 conjunction -1429 Feb 27 i 01:57 25°≈39'05 -1°-13'-36 morning rise -1424 Aug 31 j 07:19 $15^{\circ}\Omega$ 00'05 minimum elong -1429 Feb 27 i 01:56 25°≈39'04 1°13'38 -1424 Aug 31 i 07:09 15°Ω max. Earth dist. -1429 Feb 28 i 17:34 26°≈02'46 5.99100 AU -1424 Nov 24 i 04:15 0°m morning rise -1429 Mar 12 j 13:11 28°≈51'48 retrograde -1424 Dec 29 i 12:30 1° m 54'26 -1429 Mar 17 j 08:35 0°**)**€ -1423 Feb 03 j 00:34 30°RΩ -1429 Jul 22 j 14:08 19°\ 14'59 -1423 Feb 27 j 22:52 $27^{\circ}\Omega 01'56$ $1^{\circ}48'56$ retrograde opposition -1429 Sep 19 j 01:52 14° \(\)20'41 4.01279 AU -1423 Mar 01 j 01:24 $26^{\circ}\Omega$ 53'24 4.41415 AU min. Earth dist. min Earth dist opposition -1429 Sep 20 j 08:34 14° \(\)10'15 -1°-50'-53 direct -1423 May 01 j 15:25 $21^{\circ}\Omega$ 59'44 -1429 Nov 17 j 07:23 -1423 Jul 19 j 10:53 9°**)** 14'17 0° m direct -1428 Mar 21 j 23:16 28° ¥ 34'44 -1423 Sep 05 j 11:30 9° m 45'27 evening set evening set -1428 Mar 28 j 01:05 -1423 Sep 16 j 10:09 12° m 09'44 $0^{\circ}\Upsilon$ max. Earth dist. 6.39375 AU -1428 Apr 04 j 14:19 1°**Y**46'18 -1°-7'-21 -1423 Sep 18 j 05:06 12° mp 33'24 1°15'26 conjunction conjunction -1428 Apr 04 j 14:21 1°**Y**46'20 1°07'21 -1423 Sep 18 j 05:06 12° Mp 33'24 minimum elong minimum elong 1°15'27 -1428 Apr 06 j 15:46 2°Υ15'19 -1423 Sep 30 j 20:00 15° m 20'11 max. Earth dist. 6.04936 AU morning rise -1428 Apr 18 j 07:50 4°**Υ**58'55 -1423 Dec 20 j 03:51 morning rise 0∘**⊽** -1428 Aug 26 j 01:58 24°**Υ**41'58 -1422 Jan 29 j 21:53 retrograde retrograde 2°**₽**29'36 min. Earth dist. -1428 Oct 23 j 08:56 19°**Υ**47'17 4.10078 AU -1422 Mar 12 j 06:39 30°R M opposition -1428 Oct 24 j 15:04 19°**Υ**36'59 -1°-20'-36 opposition -1422 Mar 31 j 17:49 27° m 37'58 1°42'55 direct -1428 Dec 22 j 04:20 14°**Υ**37'51 min. Earth dist. -1422 Apr 02 j 02:11 27° Mp 27'39 4.36081 AU -1427 Apr 11 j 17:37 0°8 direct -1422 Jun 02 j 06:33 22° M 37'55 -1427 Apr 27 j 15:35 3°**8**34'01 -1422 Aug 15 j 19:24 evening set evening set -1422 Oct 06 j 09:49 10°**೨**35'40 -1427 May 11 j 10:18 6°**8**42'17 0°-36'-40 max. Earth dist. -1422 Oct 17 j 03:20 13°**♀**00'13 conjunction 6.31343 AU -1427 May 11 j 10:21 minimum elong 6°**8**42'19 0°36'40 -1427 May 13 j 04:48 -1422 Oct 19 i 00:04 13° \alpha 25'25 1°00'15 max. Earth dist. 7°**8**06'31 6.15970 AU conjunction morning rise -1427 May 25 i 05:16 9°**8**50'30 minimum elong -1422 Oct 19 i 00:07 13° \alpha 25'26 1°00'14 -1427 Jun 17 i 13:19 15°8 morning rise -1422 Oct 31 i 13:00 16° **2** 14'42 retrograde -1427 Sep 28 j 12:35 28°831'37 -1421 Jan 10 j 04:12 0°M min. Earth dist. -1427 Nov 26 j 04:48 23°**8**35'55 4.22136 AU -1421 Mar 04 i 00:00 4°ML03'29 retrograde -1427 Nov 27 j 01:00 23°\(\mathbf{2}29'05\) 0°-23'-56 -1421 Apr 27 j 12:58 30°R Ω opposition direct -1426 Jan 25 j 17:52 18°**8**27'18 -1421 May 03 j 23:33 29° **2**11'03 1°06'44 opposition -1426 Apr 27 j 21:49 29°**8**27'18 min. Earth dist. -1421 May 05 j 06:10 29° **2**01'17 4.25777 AU asc node -1421 Jul 04 j 18:44 24°**2**13'43 -1426 Apr 30 j 14:47 $0^{\circ}\Pi$ direct -1421 Sep 06 j 17:47 -1426 Jun 01 j 21:27 6°**Ⅲ**53′18 evening set -1421 Nov 07 j 01:10 12°M34'33 evening set conjunction -1426 Jun 15 j 13:39 9°II55'21 0°05'15 -1421 Nov 17 j 13:24 15°M -1426 Jun 15 j 13:39 9°**Ⅱ**55'21 0°05'16 max. Earth dist. -1421 Nov 18 j 05:44 15° ML09'27 6.19658 AU minimum elong -1426 Jun 15 j 05:37 9°**I**50′55 behind sun begin -1426 Jun 15 j 21:40 9°**Ⅲ**59'47 -1421 Nov 19 j 16:16 15°M29'25 0°26'32 behind sun end conjunction -1426 Jun 16 j 08:20 10°**I**05'44 6.28132 AU -1421 Nov 19 j 16:17 15°M29'26 max. Earth dist. minimum elong 0°26'31 morning rise -1426 Jun 29 j 04:26 12°**Ⅲ**56'27 morning rise -1421 Dec 02 j 07:38 18°M24'40 -1426 Oct 09 j 21:50 0ಂಣ -1420 Jan 26 j 05:40 0°**∡** retrograde -1426 Oct 30 j 04:38 0°939'51 retrograde -1420 Apr 07 j 00:35 7°**∡**10′27 -1426 Nov 19 j 08:42 30°RⅡ opposition -1420 Jun 06 j 23:25 2°**҂**15'32 0°07'22 -1426 Dec 28 j 21:57 25° **II**41'06 0°37'12 min. Earth dist. -1420 Jun 07 j 16:08 2°**х** 10′09 4.13456 AU opposition min. Earth dist. -1426 Dec 28 j 17:50 25°**Д**42'28 4.33345 AU -1420 Jun 25 j 05:07 30°RM

Planetary Phenomena of Jupiter from -1900 through -1400 (UT), Astrodienst AG 7-Dez-2017 14:43, Attention, astronomical year style is used: The year -1420 in astronomical counting style is the year 1421 BCE in historical counting style. desc. node -1420 Jul 21 j 08:44 27°M-45'42 conjunction -1414 Jun 20 j 09:01 14°**II**36'31 0°11'09 -1420 Aug 06 j 10:40 27°M20'47 direct minimum elong -1414 Jun 20 j 08:59 14°**Д**36'30 0°11'10 -1420 Sep 16 j 21:44 -1414 Jun 20 j 02:57 14°**Д**33'10 0°**√** behind sun begin -1420 Dec 09 j 04:40 16° ₹ 11'08 -1414 Jun 20 j 15:02 14°**Д**39'50 behind sun end evening set -1414 Jun 21 j 01:57 6.29972 AU max. Earth dist. 14°**Ⅱ**45'53 -1414 Jul 03 j 22:32 -1420 Dec 21 j 23:49 19° ₹ 12'45 0°-17'-11 17°**Ⅲ**36′20 conjunction morning rise -1420 Dec 21 j 23:48 19°**尽** 12'44 minimum elong 0°17'13 -1414 Sep 04 j 20:40 0.ಎ -1414 Nov 03 j 12:53 max. Earth dist. -1420 Dec 21 j 12:37 19°**∡**¹06'07 6.07835 AU retrograde 5°9511'54 22°**₹**15'32 morning rise -1419 Jan 03 j 20:44 opposition -1413 Jan 02 j 07:28 0°9513'43 0°44'58 -1419 Feb 07 j 00:58 0°ਰ min. Earth dist. -1413 Jan 02 j 05:05 0°9514'30 4.35052 AU retrograde -1419 May 13 j 22:59 12°**る**01'12 -1413 Jan 04 j 00:52 30°R∏ -1419 Jul 13 j 13:00 -1413 Mar 04 j 13:09 25°**Ⅲ**10′25 opposition 7°**る**02'39 0°-57'-53 direct min. Earth dist. -1419 Jul 13 j 11:07 7°る03'16 4.03154 AU -1413 May 02 j 11:43 0ಂಣ direct -1419 Sep 10 j 16:04 2°**る**09'22 evening set -1413 Jul 09 j 22:52 13°906'56 evening set -1418 Jan 13 j 06:07 21°₹26'10 conjunction -1413 Jul 23 j 06:35 16°9500'58 0°48'29 conjunction -1418 Jan 26 j 07:33 24° **정**33'58 0°-56'-10 minimum elong -1413 Jul 23 j 06:32 16°900'57 0°48'31 minimum elong -1418 Jan 26 j 07:30 24°る33'57 max. Earth dist. -1413 Jul 22 j 19:46 15°**©**55'04 6.38980 AU 18°953'30 max. Earth dist. -1418 Jan 27 j 00:58 24°₹44'26 5.99982 AU morning rise -1413 Aug 05 j 11:29 morning rise -1418 Feb 08 j 12:01 27°る43'28 -1413 Sep 30 j 17:10 $0^{\circ}\Omega$ -1418 Feb 18 j 02:51 0°**≈** retrograde -1413 Dec 04 j 02:14 5°**Ω**54'25 -1418 May 06 i 07:24 15°≈ opposition -1412 Feb 02 i 05:26 0°**Ω**59'46 1°29'57 retrograde -1418 Jun 20 j 15:20 18°≈07'54 min. Earth dist. -1412 Feb 02 i 20:04 0°**Ω**54'59 4.41481 AU -1418 Aug 05 i 04:08 15°R≈ -1412 Feb 09 i 22:10 30°RS -1418 Aug 19 j 18:41 13°≈05'30 -1°-43'-28 direct -1412 Apr 04 j 11:40 25°556'29 opposition -1418 Aug 18 j 21:19 13°≈12'39 -1412 May 28 j 17:04 min. Earth dist. 3.98726 AU $0^{\circ}\Omega$ -1418 Oct 16 j 21:41 8°**≈**11'39 -1412 Aug 09 j 17:00 13° Ω 40'16 direct evening set -1418 Dec 22 j 16:19 15°≈ -1412 Aug 15 j 20:02 $15^{\circ}\Omega$ max. Earth dist. -1412 Aug 21 j 08:50 $16^{\circ}\Omega$ 12'19 6.42254 AU -1417 Feb 18 j 22:38 27°≈40'12 evening set -1417 Feb 28 j 17:11 0°**)** conjunction -1412 Aug 22 j 16:17 $16^{\circ}\Omega$ 29'28 $1^{\circ}11'23$ 0°**升**51'40 -1°-14'-28 -1417 Mar 04 j 07:40 -1412 Aug 22 j 16:15 16°**Ω**29'27 conjunction minimum elong 1°11'24 -1417 Mar 04 j 07:39 -1412 Sep 04 j 12:18 19°**Ω**17'09 0°**¥**51'40 1°14'29 morning rise minimum elong -1412 Oct 28 j 11:48 1°**光**16'13 5.99270 AU -1417 Mar 06 j 00:46 max. Earth dist. 0° m 4°**)**€04'47 -1417 Mar 17 j 20:01 -1411 Jan 02 j 16:06 morning rise retrograde 6° Mp 10'17 -1417 Jul 27 j 16:23 24°**米**25'42 -1411 Mar 04 j 05:21 retrograde opposition 1° mp 17'58 1°49'47 -1417 Sep 24 j 02:47 19° **∺** 31'24 4.01940 AU 1° Mp 09'10 4.41537 AU min. Earth dist. min. Earth dist. -1411 Mar 05 j 08:46 opposition -1417 Sep 25 j 09:58 19° **★**20'47 -1°-48'-57 -1411 Mar 14 j 11:25 30°R**Ω** -1417 Nov 22 j 09:45 14°**米**24'25 direct -1411 May 05 j 22:14 26°**Ω**15'59 direct -1416 Mar 11 j 00:05 $0^{\circ}\Upsilon$ -1411 Jun 26 j 20:10 0°my evening set -1416 Mar 27 j 04:41 3°Y43'19 evening set -1411 Sep 09 j 15:51 14° Mp 00'59 max. Earth dist. -1411 Sep 20 j 11:13 16° m 23'43 -1416 Apr 09 j 20:45 6°**Y**54'49 -1°-4'-14 conjunction -1416 Apr 09 j 20:48 6°Υ54'51 1°04'14 -1411 Sep 22 j 08:32 16° Mp 48'45 1°14'32 minimum elong conjunction -1416 Apr 11 j 23:56 7°**Υ**24'44 6.06058 AU -1411 Sep 22 j 08:33 16° Mp 48'45 max. Earth dist. minimum elong -1416 Apr 23 i 14:44 10° γ′07'10 -1411 Oct 04 i 22:58 19° m 35'29 morning rise morning rise -1416 Aug 30 j 23:21 29°**Υ**42'58 retrograde -1411 Nov 25 i 07:55 0∘ಹ min. Earth dist. -1416 Oct 28 i 05:42 24° γ48'22 4.11548 AU retrograde -1410 Feb 03 i 06:59 6°**£**47'46 opposition -1416 Oct 29 j 11:16 24°**Υ**38'17 -1°-13'-40 opposition -1410 Apr 05 i 03:00 1°**2**56'08 1°39'38 1°**2**45'12 4.35147 AU direct -1416 Dec 27 j 03:15 19°**Υ**'38'52 min. Earth dist. -1410 Apr 06 i 13:19 -1415 Mar 24 j 07:29 0°8 -1410 Apr 20 j 17:36 30°R M -1415 May 02 j 17:47 8°**8**31'12 direct -1410 Jun 06 j 15:38 26° m 56'18 evening set -1410 Jul 22 j 21:37 0∘⊽ -1415 May 16 j 12:23 11°**8**38'45 0°-31'-4 conjunction evening set -1410 Oct 10 j 14:23 14° **△**56'02 minimum elong -1415 May 16 j 12:26 11° \(\mathref{3}\)38'46 0°31'03 max. Earth dist. -1410 Oct 21 j 07:20 17°**Ω**20'42 6.29948 AU max. Earth dist. -1415 May 18 j 03:59 12°**8**01'14 6.17692 AU morning rise -1415 May 30 j 07:17 14°**8**46'08 conjunction -1410 Oct 23 j 04:38 17°**△**46'18 0°56'37 -1415 May 31 j 07:57 15°**8** -1410 Oct 23 j 04:41 17°**£**46'20 minimum elong 0°56'37 -1415 Aug 17 j 15:49 -1410 Nov 04 j 17:38 20°**♀**36'12 Π °0 morning rise -1415 Oct 03 j 01:50 retrograde 3°**Ⅱ**18'21 -1410 Dec 19 j 05:13 0° M -1415 Nov 18 j 13:45 30°R retrograde -1409 Mar 08 j 13:22 8°M31'56 opposition -1415 Dec 01 j 15:25 28°**8**16'17 0°-15'-6 opposition -1409 May 08 j 13:49 3°**M**⋅39'12 0°59'49 min. Earth dist. -1415 Nov 30 j 20:33 28°**8**22'39 4.23969 AU min. Earth dist. -1409 May 09 j 19:04 3°M29'52 4.23997 AU direct -1414 Jan 30 j 13:04 23°**8**14'15 -1409 Jun 09 j 21:07 30°**₹**Ω asc. node -1414 Mar 07 j 11:55 25°**8**13'15 direct -1409 Jul 09 j 04:03 28°**£**42'09 -1414 Apr 10 j 07:10 0°**Ⅱ** -1409 Aug 07 j 08:27 -1414 Jun 06 j 17:31 11°**Д**35'33 -1409 Nov 02 j 02:44 15°M evening set

	omena of Jupiter frontical year style is used: The						age 44
evening set	-1409 Nov 11 j 10:00	•	in astronomical col	max. Earth dist.	-1403 May 23 j 05:01		
max. Earth dist.	-1409 Nov 22 j 16:57		6.17644 AU	morning rise	-1403 Jun 04 j 09:32		0.17002 110
			,		-1403 Jul 23 j 15:07	0°II	
conjunction	-1409 Nov 24 j 01:31	20°M03'28	0°20'57	retrograde	-1403 Oct 07 j 16:39	8° Ⅱ 04'30	
minimum elong	-1409 Nov 24 j 01:32	20°M03'29	0°20'56	opposition	-1403 Dec 06 j 05:59	3° Ⅱ 02'55	0°-6'-5
morning rise	-1409 Dec 06 j 17:30	22°M59'50		min. Earth dist.	-1403 Dec 05 j 13:33	3° Ⅱ 08'27	4.25885 AU
	-1408 Jan 07 j 02:51	0° ∡ ¹			-1403 Dec 30 j 16:20	30° ₹ 8	
retrograde	-1408 Apr 12 j 00:35	11° ₹ ′55'34		asc. node	-1402 Jan 14 j 02:18	28° 8 44'16	
desc. node	-1408 Jun 02 j 01:49	8° ≯ 15'10		direct	-1402 Feb 04 j 09:04	28° 8 00'36	
opposition	-1408 Jun 11 j 20:50	7° ∡ ¹00′13	0°-1'-37		-1402 Mar 12 j 11:50	Π °0	
min. Earth dist.	-1408 Jun 12 j 12:44	6° ≯ 55'04	4.11341 AU	evening set	-1402 Jun 11 j 13:37	16° Ⅱ 17'03	
direct	-1408 Aug 11 j 03:53	2° ∡ ¹05'41				—	
evening set	-1408 Dec 13 j 20:59	21° ₰ 02'07		conjunction	-1402 Jun 25 j 04:08	19° Ⅱ 16'53	0°17'03
	1400 D 26:15.00	240 704150	00.001.5	minimum elong	-1402 Jun 25 j 04:06	19° Ⅱ 16'52	0°17'05
conjunction	-1408 Dec 26 j 17:00	24° 🖈 04'59	0°-23'-7	max. Earth dist.	-1402 Jun 25 j 16:51	19° Ⅱ 23'54	6.31710 AU
minimum elong	-1408 Dec 26 j 16:58		0°23'09	morning rise	-1402 Jul 08 j 16:38		
max. Earth dist.	-1408 Dec 26 j 08:36		6.05817 AU		-1402 Aug 14 j 16:12	0°5	
morning rise	-1407 Jan 08 j 15:01	27°♂09'07 0°る		retrograde opposition	-1402 Nov 07 j 21:17	9°944'01	0°52'36
retrograde	-1407 Jan 20 j 18:52 -1407 May 19 j 03:43			min. Earth dist.	-1401 Jan 06 j 17:35 -1401 Jan 06 j 17:25	4°5946'21 4°5946'24	4.36488 AU
opposition	-1407 Jul 18 j 16:15		1° 5' 52	iiiii. Eartii tiist.	-1401 Feb 23 j 15:35	4 €340 24 30°RⅡ	4.30466 AU
min. Earth dist.	-1407 Jul 18 j 10:59			direct	-1401 Mar 09 j 02:55	29° ∏ 42'57	
direct	-1407 Sep 15 j 13:30	7°る12'13	4.01437 AC	direct	-1401 Mar 22 j 17:30	0°95	
evening set	-1406 Jan 18 j 07:13			evening set	-1401 Jul 14 j 12:33	17°936'14	
evening sec	1.00 van 10 j 07.12	20 03.20		evening see	1101041 11,12.55	1, 2301.	
conjunction	-1406 Jan 31 j 09:44			conjunction	-1401 Jul 27 j 19:05	20°529'22	0°52'47
minimum elong	-1406 Jan 31 j 09:41		1°00'13	minimum elong	-1401 Jul 27 j 19:03	20°529'20	0°52'48
max. Earth dist.	-1406 Feb 01 j 06:46		5.98752 AU	max. Earth dist.	-1401 Jul 27 j 05:37		6.39998 AU
	-1406 Feb 01 j 13:31	0° ≈		morning rise	-1401 Aug 09 j 22:30	23°9520'55	
morning rise	-1406 Feb 13 j 15:26	2°≈53'52			-1401 Sep 10 j 19:41	0°N	
	-1406 Apr 09 j 13:06	15° ≈		retrograde	-1401 Dec 08 j 09:28	10° Ω 18'38	100.40
retrograde	-1406 Jun 25 j 23:20	23°≈23'19	2 00114 ATT	opposition	-1400 Feb 06 j 14:01	5° Ω 24'28	1°34'26
min. Earth dist.	-1406 Aug 24 j 00:43	18°≈28'19	3.98114 AU	min. Earth dist.	-1400 Feb 07 j 06:53	5° Ω 19'00	4.42030 AU
opposition	-1406 Aug 25 j 00:20 -1406 Sep 21 j 10:39		-1*-46*-50	direct	-1400 Apr 08 j 22:45	0° Ω 21'22	
direct	-1406 Oct 22 j 01:28			evening set	-1400 Jul 30 j 17:47 -1400 Aug 14 j 02:42		
direct	-1406 Nov 21 j 13:09			max. Earth dist.	-1400 Aug 14 j 02:42 -1400 Aug 25 j 13:10		6.42268 ATT
	-1405 Feb 11 j 16:50	0°) €		max. Lartii dist.	1400 Mug 23 j 13.10	20 003320	0.42200710
evening set	-1405 Feb 24 j 05:28	2°) 56′50		conjunction	-1400 Aug 27 j 00:45	20°Ω52'51	1°13'05
evening see	1.00100 2., 00.20	2 /(5050		minimum elong	-1400 Aug 27 j 00:43		
conjunction	-1405 Mar 09 j 15:51	6°) €08'51	-1°-14'-40	morning rise	-1400 Sep 08 j 19:53		
minimum elong	-1405 Mar 09 j 15:52	6°) €08'51		C	-1400 Oct 09 j 00:40	0° m)	
max. Earth dist.	-1405 Mar 11 j 13:44		5.99333 AU		J	•	
morning rise	-1405 Mar 23 j 05:12	9°) 22′22					
retrograde	-1405 Aug 01 j 21:41	29°) 40′38					
min. Earth dist.	-1405 Sep 29 j 05:09	24°) 46′25	4.02668 AU				
opposition	-1405 Sep 30 j 13:12	24°) ₹35'30	-1°-46'-3				
direct	-1405 Nov 27 j 13:29	19°) 38′43					
	-1404 Feb 21 j 05:26	0 ° Υ					
evening set	-1404 Apr 01 j 12:08	8° Y 55′20					
conjunction	-1404 Apr 15 j 04:45	12° Y 06'32	-1°00'-32				
minimum elong	-1404 Apr 15 j 04:48						
max. Earth dist.	-1404 Apr 17 j 07:23						
morning rise	-1404 Apr 28 j 23:24						
Ç	-1404 Jul 10 j 10:23	0°8					
retrograde	-1404 Sep 04 j 19:23	4° 8 45'52					
-	-1404 Nov 01 j 01:24						
min. Earth dist.	-1404 Nov 02 j 02:42		4.13228 AU				
opposition	-1404 Nov 03 j 08:16						
direct	-1403 Jan 01 j 03:53						
	-1403 Mar 01 j 23:17	0° 8					
evening set	-1403 May 07 j 20:39	13° 8 28'55					
	-1403 May 14 j 14:14	15° 8					

conjunction minimum elong -1403 May 21 j 15:13 16°\(\delta 35'35 \) 0°-25'-11 -1403 May 21 j 15:15 16°\(\delta 35'36 \) 0°25'10

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1400 in astronomical counting style is the year 1401 BCE in historical counting style. -1400 Feb 06 i 14:01 5°Ω24'28 1°34'26 conjunction -1394 Feb 05 i 15:34 5°≈01'34 -1°-3'-54 opposition -1400 Feb 07 j 06:53 5°**Ω**19'00 minimum elong -1394 Feb 05 j 15:31 5°≈01'32 1°03'55 min. Earth dist. 4 42030 AU 0°**Ω**21'22 -1400 Apr 08 j 22:45 -1394 Feb 06 j 18:28 direct max. Earth dist. 5°≈17'44 5 98430 AU -1400 Jul 30 j 17:47 15°**Ω** 8°≈12'44 -1394 Feb 18 j 22:17 morning rise evening set -1400 Aug 14 j 02:42 18°**Ω**04'08 -1394 Mar 20 j 06:06 15°≈ max. Earth dist. -1400 Aug 25 j 13:10 20°**Ω**33'26 6.42268 AU retrograde -1394 Jul 01 j 07:57 28°≈42'56 min. Earth dist. -1394 Aug 29 j 05:38 23°≈48'08 3.98479 AU conjunction -1400 Aug 27 j 00:45 20°**Ω**52'51 1°13'05 opposition -1394 Aug 30 j 07:06 23°**≈**39'32 -1°-49'-24 18°**≈**45'09 minimum elong -1400 Aug 27 j 00:43 20°**£**52′50 1°13'06 direct -1394 Oct 27 j 06:46 morning rise -1400 Sep 08 j 19:53 23°**Ω**40′09 -1393 Jan 24 j 08:05 0°\ -1400 Oct 09 j 00:40 0°**™** evening set -1393 Mar 01 j 12:48 8°**)** 14′08 -1399 Jan 07 j 01:58 10° M 34'15 retrograde opposition -1399 Mar 08 j 15:35 5° Mp 42'09 1°50'11 conjunction -1393 Mar 14 j 23:59 11° **∺** 26'05 -1°-14'-20 min. Earth dist. -1399 Mar 09 j 21:11 5° Mp 32'41 4.41034 AU minimum elong -1393 Mar 15 j 00:00 11°**米**26'06 1°14'20 direct -1399 May 10 j 09:03 0° m 40'23 max. Earth dist. -1393 Mar 16 j 22:58 11°**米** 54'01 6.00314 AU evening set -1399 Sep 14 j 00:04 18° Mp 26'48 morning rise -1393 Mar 28 j 14:24 14° **∺**39'33 max. Earth dist. -1399 Sep 24 j 19:02 20° m/49'38 6.37983 AU -1393 Jun 10 j 22:51 $0^{\circ}\Upsilon$ retrograde -1393 Aug 06 j 21:35 4°Υ51'18 conjunction -1399 Sep 26 j 16:22 21° mp 14'44 1°13'14 -1393 Oct 03 j 20:52 30°R € minimum elong -1399 Sep 26 j 16:23 21° mp 14'45 min. Earth dist. -1393 Oct 04 j 04:44 29° ¥ 57'19 4.04158 AU morning rise -1399 Oct 09 j 06:12 24° m 01'40 opposition -1393 Oct 05 j 13:50 29° **€** 46'01 -1°-42'-22 -1399 Nov 06 i 05:01 0∘**⊽** direct -1393 Dec 02 i 15:57 24° \(\frac{1}{48}\)48'45 retrograde -1398 Feb 07 i 20:14 11° **2**18'55 -1392 Jan 29 i 17:38 $0^{\circ}\Upsilon$ opposition -1398 Apr 09 i 17:40 6°**£**27'16 1°35'41 -1392 Apr 06 j 16:44 14° Υ 00'40 evening set min. Earth dist. -1398 Apr 11 i 03:30 6°**£**16'31 4.33738 AU -1398 Jun 11 j 03:01 1°**£**27'52 -1392 Apr 20 j 09:59 17°**Υ**11'17 0°-56'-30 direct conjunction -1398 Oct 15 j 00:39 19° **△**31'04 -1392 Apr 20 j 10:02 17°**Υ**11'19 0°56'31 evening set minimum elong -1398 Oct 25 j 17:47 21°**♀**56'28 -1392 Apr 22 j 12:01 17°**Υ**'40'17 max. Earth dist. 6.28230 AU max. Earth dist. 6.09215 AU morning rise -1392 May 04 j 04:47 20°**Y**22'28 -1398 Oct 27 j 14:45 22° **2**22'00 0°52'29 -1392 Jun 17 j 13:08 0°8 conjunction -1398 Oct 27 j 14:47 22°**2**22'01 -1392 Sep 09 j 13:38 9°**8**39'47 0°52'29 retrograde minimum elong -1392 Nov 06 j 22:16 -1398 Nov 09 j 04:03 25°**2**12'43 min. Earth dist. 4°**8**44'46 4.15241 AU morning rise -1398 Nov 30 j 19:45 0°M -1392 Nov 08 j 01:32 4°\(\mathbf{2}\)35'29 0°-58'-19 opposition -1397 Mar 13 j 12:10 13°M 16'43 -1392 Dec 21 j 07:47 30°R**Y** retrograde -1397 May 13 j 11:09 8°M23'46 0°52'05 -1391 Jan 06 j 02:14 29°**Y**35'07 opposition direct min. Earth dist. -1397 May 14 j 15:52 8°ML14'35 4.22064 AU -1391 Jan 21 j 22:16 0°**8** direct -1397 Jul 13 j 21:50 3°M27'07 -1391 Apr 27 j 23:03 15°**8** -1397 Oct 15 j 19:46 15°M evening set -1391 May 12 j 19:15 18°**8**17'08 evening set -1397 Nov 16 j 01:19 21°ML57'29 max. Earth dist. -1397 Nov 27 j 11:43 24° ML 37'05 6.15690 AU conjunction -1391 May 26 j 13:34 21°**8**22'49 0°-19'-20 minimum elong -1391 May 26 j 13:35 21°**8**22'49 0°19'20 -1397 Nov 28 j 17:26 24°ML54'25 0°14'54 max. Earth dist. -1391 May 28 j 00:15 21°**8**42'20 conjunction 6.21597 AU -1397 Nov 28 j 17:27 24°ML54'26 0°14'52 -1391 Jun 09 j 07:24 24°**8**28'01 minimum elong morning rise -1397 Nov 28 j 14:04 24°M52'28 -1391 Jul 04 j 17:31 0°**Ⅱ** behind sun begin -1397 Nov 28 j 20:49 24°M56'24 -1391 Oct 12 j 01:38 12°**Д**41'27 behind sun end retrograde morning rise -1397 Dec 11 i 10:07 27° ML 51'57 asc. node -1391 Nov 24 i 03:00 9°**Ⅱ**49'35 -1397 Dec 20 i 16:24 0° ₹ opposition -1391 Dec 10 i 16:47 7°**Ⅱ**40'21 0°02'36 desc. node -1396 Apr 11 j 01:03 16° \$\frac{7}{53}\$'39 min. Earth dist. -1391 Dec 10 i 02:01 7°**Ц**45'19 4.27684 AU retrograde -1396 Apr 17 i 04:26 16° ₹757'14 direct -1390 Feb 08 i 23:18 2°**Д**37'46 -1396 Jun 17 i 00:31 12° ₹ 01'28 0°-11'-11 -1390 Jun 16 j 05:51 20° Д50'03 opposition evening set min. Earth dist. -1396 Jun 17 j 13:01 11° ₹757'26 4 09550 AU -1396 Aug 16 j 01:36 7°**尽** 07'20 -1390 Jun 29 j 19:23 23°**Ⅲ**48'51 0°22'40 direct conjunction -1396 Dec 18 j 19:33 26° ₹08'37 -1390 Jun 29 j 19:21 23°**II**48'50 0°22'41 evening set minimum elong 6.33183 AU max. Earth dist. -1390 Jun 30 j 03:28 23°**Ⅲ**53'18 conjunction -1396 Dec 31 j 16:19 29° ₹ 12'28 0°-29'-14 morning rise -1390 Jul 13 j 06:43 26° **1**46'24 minimum elong -1396 Dec 31 j 16:16 29° ₹ 12'27 0°29'17 -1390 Jul 28 j 05:41 0ಂತಾ -1396 Dec 31 j 11:54 29° ₹ 09'50 6.04366 AU max. Earth dist. retrograde -1390 Nov 12 j 04:52 14°509'09 -1395 Jan 03 j 23:56 0°る -1389 Jan 11 j 01:02 9°**©**12'02 opposition 0°59'41 -1395 Jan 13 j 15:25 2°**る**17'43 -1389 Jan 11 j 04:21 morning rise min. Earth dist. 9°**©**10′56 4.37538 AU -1395 May 24 j 13:18 22°**♂**20'21 -1389 Mar 13 j 14:53 retrograde direct 4°908'34 -1395 Jul 24 j 00:04 17°₹20'42 -1°-13'-44 opposition evening set -1389 Jul 18 j 23:47 21°559'58 min. Earth dist. -1395 Jul 23 j 15:43 17°る23'28 4.00520 AU max. Earth dist. -1389 Jul 31 j 11:20 24°542'41 6.40529 AU direct -1395 Sep 20 j 18:16 12°る27'30 -1394 Jan 15 j 15:21 0°≈ conjunction -1389 Aug 01 j 05:09 24°952'23 0°56'40 evening set -1394 Jan 23 j 11:52 1°≈52'05 minimum elong -1389 Aug 01 j 05:06 24°952'21 0°56'41

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1389 in astronomical counting style is the year 1390 BCE in historical counting style. -1389 Aug 14 j 07:25 27°543'14 direct -1383 Sep 25 j 21:37 17°**⋜**40'18 morning rise -1389 Aug 24 j 22:17 $0^{\circ}\Omega$ -1383 Dec 28 j 23:39 0°≈ retrograde -1389 Dec 12 j 15:36 $14^{\circ}\Omega$ 39'29 -1382 Jan 28 j 15:52 7°≈05'45 evening set -1388 Feb 10 j 21:26 opposition 9°**Ω**45'39 1°38'19 -1388 Feb 11 j 16:20 4.42051 AU -1382 Feb 10 j 20:22 10°≈15'36 -1°-7'-4 min. Earth dist. 9°**£**39'32 conjunction -1382 Feb 10 j 20:20 10°≈15'35 direct -1388 Apr 13 j 07:15 4°**Ω**42'37 minimum elong 1°07'07 -1382 Feb 12 j 01:32 10°≈33'08 -1388 Jul 13 j 13:45 15°**Ω** max. Earth dist. 5.98473 AU 13°**≈**27'14 evening set -1388 Aug 18 j 11:11 22°Ω25'59 morning rise -1382 Feb 24 j 04:18 max. Earth dist. -1388 Aug 29 j 19:43 24°**\O**54'27 6.41772 AU -1382 Mar 02 j 16:41 15°**≈** -1382 May 16 j 10:25 0°\ conjunction -1388 Aug 31 j 08:23 25°Ω14'30 1°14'21 retrograde -1382 Jul 06 j 11:46 3°**¥**56'35 -1388 Aug 31 j 08:22 25°**Ω**14'30 -1382 Aug 27 j 02:44 minimum elong 1°14'22 30°R≈ -1388 Sep 13 j 02:30 28°**Ω**01'37 min. Earth dist. -1382 Sep 03 j 07:21 29°≈02'11 3.99076 AU morning rise -1388 Sep 22 j 05:56 0° m opposition -1382 Sep 04 j 11:10 28°≈52'47 -1°-51'-4 retrograde -1387 Jan 11 j 11:43 14° Mp 58'21 direct -1382 Nov 01 j 09:36 23°≈58'04 opposition -1387 Mar 13 j 02:18 10° Mp 06'27 1°49'59 -1381 Jan 02 j 21:58 0°**)**€ min. Earth dist. -1387 Mar 14 j 08:57 9° m 56'39 4.40069 AU evening set -1381 Mar 06 j 18:01 13°**∺**25'04 direct -1387 May 14 j 19:11 5° m 05'01 evening set -1387 Sep 18 j 08:51 22° mp 54'01 conjunction -1381 Mar 20 j 06:18 16° ★ 36'59 -1°-13'-26 max. Earth dist. -1387 Sep 29 j 01:20 25° m 16'03 6.36616 AU minimum elong -1381 Mar 20 j 06:19 16° \(\frac{1}{3} \) 37'00 1°13'27 max. Earth dist. -1381 Mar 22 j 07:12 17°**米**05'58 6.01399 AU conjunction -1387 Oct 01 i 00:30 25° mp 42'16 1°11'30 morning rise -1381 Apr 02 j 21:22 19°\(\mathbf{t}\) 50'15 minimum elong -1387 Oct 01 i 00:32 25° m 42'17 1°11'29 -1381 May 18 j 18:50 $0^{\circ}\Upsilon$ morning rise -1387 Oct 13 j 14:12 28° m 29'39 retrograde -1381 Aug 11 j 21:55 9°**Υ**55'29 -1387 Oct 20 j 10:27 0∘**⊽** min. Earth dist. -1381 Oct 09 j 04:20 5°**Υ**01'06 4.05602 AU -1386 Feb 12 j 13:07 15° **2**53'05 -1381 Oct 10 j 12:14 4°Υ50'13 -1°-38'-1 retrograde opposition -1386 Apr 14 j 10:06 11° **2**01'20 1°31'06 -1381 Nov 29 j 05:03 30°R € opposition -1386 Apr 15 j 19:51 10°**2**50'36 4.32059 AU -1381 Dec 07 j 17:43 29° + 52'31 min. Earth dist. direct -1386 Jun 15 j 17:02 6°**♀**02'18 -1381 Dec 16 j 05:56 $0^{\circ}\Upsilon$ direct -1380 Apr 11 j 19:19 19°**Υ**00′20 evening set -1386 Oct 19 j 12:18 24° **2**09'33 evening set -1386 Oct 30 j 08:21 26°**△**37'11 6.26399 AU max. Earth dist. -1380 Apr 25 j 13:01 22° Υ 10'25 0°-52'-9 conjunction -1386 Nov 01 j 02:39 27°**2**01'18 0°47'57 -1380 Apr 25 j 13:05 22°**Y**10′27 conjunction minimum elong 0°52'09 -1386 Nov 01 j 02:42 27°**೨**01'19 max. Earth dist. -1380 Apr 27 j 14:03 22°**Υ**38'43 minimum elong 0°47'56 6.10895 AU -1386 Nov 13 j 16:06 29°**♀**52'53 -1380 May 09 j 08:03 25°**Y**20'56 morning rise morning rise -1386 Nov 14 j 04:40 0°M -1380 May 30 j 01:16 0°8 -1385 Jan 31 j 19:15 15°M -1380 Sep 14 j 04:21 14°**8**29'16 retrograde retrograde -1385 Mar 18 j 10:45 18° ML05'17 opposition -1380 Nov 12 j 17:00 9°**8**25'22 0°-50'-18 -1385 May 03 j 23:48 15°RM min. Earth dist. -1380 Nov 11 j 14:32 9°**8**34'22 4.16990 AU opposition -1385 May 18 j 10:11 13°ML12'01 0°43'51 direct -1379 Jan 10 j 20:25 4°**8**24'39 min. Earth dist. -1385 May 19 j 12:25 13°ML03'38 4.20215 AU -1379 Apr 10 j 02:37 15°**8** -1385 Jul 18 j 15:50 8°ML15'51 -1379 May 17 j 16:57 23°**8**02'28 direct evening set -1385 Sep 25 j 16:29 15°M -1385 Nov 20 j 18:15 26°M50'33 -1379 May 31 j 10:50 26°807'17 0°-13'-26 evening set conjunction max. Earth dist. -1385 Dec 02 j 07:50 29°M32'39 -1379 May 31 j 10:51 26°**8**07'17 minimum elong -1379 May 31 i 06:22 26°**8**04'47 behind sun begin -1385 Dec 03 j 10:45 29° ML 48'25 0°08'40 conjunction behind sun end -1379 May 31 j 15:20 26° **8**09'47 -1385 Dec 03 j 10:45 29°ML48'25 minimum elong 0°08'39 max. Earth dist. -1379 Jun 01 i 16:52 26°**8**24'08 6.23285 AU -1385 Dec 03 i 03:46 29° ML44'21 -1379 Jun 14 i 04:06 29°**8**11'30 behind sun begin morning rise behind sun end -1385 Dec 03 i 17:44 29° ML52'29 -1379 Jun 17 i 19:30 0°**Ⅱ** -1385 Dec 04 j 06:33 asc. node -1379 Oct 04 j 02:39 17° **II** 02'02 0°×7 -1385 Dec 16 j 04:18 -1379 Oct 16 j 12:45 17° **II** 17'10 morning rise 2° ×747'01 retrograde -1384 Feb 18 j 19:39 16° **₹** 13'51 -1379 Dec 15 j 03:15 12° **II** 16'39 0°11'13 desc. node opposition retrograde -1384 Apr 22 j 10:01 22° ₹ 00'47 min. Earth dist. -1379 Dec 14 j 15:57 12° **II** 20'26 4.29161 AU -1378 Feb 13 j 15:02 7°**Ⅱ**13'52 opposition -1384 Jun 22 j 05:20 17° ₹ 04'28 0°-20'-46 direct -1384 Jun 22 j 14:43 17°**尽** 01'26 min. Earth dist. 4.08122 AU evening set -1378 Jun 20 j 21:55 25°**Ⅲ**23'09 direct -1384 Aug 21 j 02:26 12°**尽** 10'33 -1384 Dec 18 j 11:24 0°る -1378 Jul 04 j 10:36 28°**Ⅲ**21'07 0°28'08 conjunction -1384 Dec 23 j 18:25 1°る15'06 -1378 Jul 04 j 10:34 28°**Ⅲ**21'06 evening set minimum elong 0°28'09 -1378 Jul 04 j 15:32 28°**I**23'49 6.34338 AU max. Earth dist. -1383 Jan 05 j 16:07 4°る19'47 0°-35'-8 -1378 Jul 11 j 22:41 conjunction 0ಂತಾ minimum elong -1383 Jan 05 j 16:05 4°**る**19'45 0°35'12 morning rise -1378 Jul 17 j 20:43 1°9517'43 max. Earth dist. -1383 Jan 05 j 17:22 4°る20'32 6.03346 AU retrograde -1378 Nov 16 j 10:50 18°935'55 morning rise -1383 Jan 18 j 16:04 7°**る**25'52 opposition -1377 Jan 15 j 09:05 13°939'19 1°06'29 retrograde -1383 May 29 j 22:20 27°♂33'41 min. Earth dist. -1377 Jan 15 j 14:02 13°537'41 4.38317 AU -1383 Jul 29 j 06:55 22°₹33'30 -1°-20'-57 -1377 Mar 18 j 00:59 8°935'52 opposition direct

evening set

-1377 Jul 23 j 11:33 26°526'10

min. Earth dist.

-1383 Jul 28 j 20:02 22° 중37'06 4.00031 AU

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1377 in astronomical counting style is the year 1378 BCE in historical counting style. -1377 Aug 05 j 15:40 29°517'57 1°00'17 max. Earth dist. -1371 Jan 10 j 17:48 9°**ප**24'26 conjunction 6.02677 AU -1377 Aug 05 j 15:37 29°517'55 -1371 Jan 23 j 15:05 12°る28'59 minimum elong 1°00'18 morning rise -1377 Aug 04 j 18:31 29°506'25 -1371 Apr 23 j 05:37 max. Earth dist. 6.40867 AU 0°≈≈ -1377 Aug 08 j 20:49 -1371 Jun 04 j 01:19 0° Ω 2°≈40'25 retrograde -1377 Aug 18 j 16:44 -1371 Jul 16 j 01:52 30°R궁 morning rise 2°**Ω**08'11 -1377 Oct 25 j 10:26 15° Ω -1371 Aug 03 j 10:21 27°₹39'37 opposition -1°-27'-19 -1377 Dec 17 j 00:14 19°**Ω**03'40 retrograde min. Earth dist. -1371 Aug 02 j 20:11 27°**る**44'20 3.99802 AU 22°**る**46'17 -1376 Feb 08 j 19:29 15°R**Ω** direct -1371 Sep 30 j 21:41 opposition -1376 Feb 15 j 06:18 $14^{\circ}\Omega$ 10'15 $1^{\circ}41'44$ -1371 Dec 09 j 02:28 0°≈ min. Earth dist. -1376 Feb 16 j 03:47 $14^{\circ}\Omega$ 03'19 4.41949 AU evening set -1370 Feb 02 j 16:49 12°≈11'52 direct -1376 Apr 17 j 18:36 9°**Ω**07'27 -1370 Feb 14 j 09:40 15°≈ -1376 Jun 23 j 04:18 15°**Ω** evening set -1376 Aug 22 j 20:43 26° Ω51'32 conjunction -1370 Feb 15 j 22:27 15°≈22'04 -1°-9'-37 max. Earth dist. -1376 Sep 03 j 01:40 29°**Ω**18'22 6.41226 AU minimum elong -1370 Feb 15 j 22:25 15°≈22'03 1°09'39 max. Earth dist. -1370 Feb 17 j 07:28 15°**≈**41'53 5.98691 AU conjunction -1376 Sep 04 j 16:58 29°**Ω**39'54 1°15'14 morning rise -1370 Mar 01 j 07:12 18°≈33'58 minimum elong -1376 Sep 04 j 16:57 29°**Ω**39'53 1°15'13 -1370 Apr 21 j 21:57 0°**)**€ -1376 Sep 06 j 05:40 0° M retrograde -1370 Jul 11 j 14:23 9°**₩**01'44 morning rise -1376 Sep 17 j 10:19 2° m 26'54 min. Earth dist. -1370 Sep 08 j 07:55 4°**升**07'00 3.99721 AU retrograde -1375 Jan 15 j 22:51 19° m 26'26 opposition -1370 Sep 09 j 11:41 3°**升**57'36 -1°-51'-48 opposition -1375 Mar 17 j 14:22 14° m 34'39 1°49'10 -1370 Oct 13 j 17:28 30°R≈ min. Earth dist. -1375 Mar 18 j 21:21 14° m 24'45 4.39148 AU direct -1370 Nov 06 j 11:08 29°≈02'30 direct -1375 May 19 i 06:14 9°m 33'32 -1370 Nov 30 j 04:20 0°**∀** evening set -1375 Sep 22 j 18:27 27° m 24'47 evening set -1369 Mar 11 j 20:07 18° **¥** 27'28 max. Earth dist. -1375 Oct 03 j 12:14 29° m 47'58 6.35413 AU -1375 Oct 04 j 09:50 0∘**ত** -1369 Mar 25 j 09:17 21° ★ 39'20 -1°-12'-1 conjunction -1369 Mar 25 j 09:19 21° **)** 39'22 1°12'02 minimum elong -1375 Oct 05 j 09:47 0°**£**13'22 1°09'20 -1369 Mar 27 j 10:55 22° **)** €08'39 conjunction max. Earth dist. 6.02401 AU -1375 Oct 05 j 09:49 1°09'21 -1369 Apr 08 j 01:13 24° ¥ 52'29 0°**£**13'23 morning rise minimum elong -1375 Oct 17 j 23:03 3°**♀**01'07 -1369 Apr 30 j 09:30 0°**Υ** morning rise -1374 Feb 17 j 05:28 20°**△**30'06 -1369 Aug 16 j 16:58 14° Υ 51'24 retrograde retrograde 9°**Υ**57'09 4.06864 AU -1374 Apr 19 j 03:27 15°**♀**38'17 1°25'57 -1369 Oct 13 j 22:56 min. Earth dist. opposition 9°**Y**46'13 min. Earth dist. -1374 Apr 20 j 12:30 15°**£**27'46 4.30654 AU -1369 Oct 15 j 06:59 -1°-33'-8 opposition -1374 Jun 20 j 07:55 10°**♀**39'43 -1369 Dec 12 j 13:32 4°**Υ**48'06 direct direct -1374 Oct 24 j 00:15 28° **△**49'50 -1368 Apr 16 j 19:23 23°**Y**52'47 evening set evening set -1374 Oct 29 j 03:41 0°M -1368 Apr 30 j 13:25 27°**Υ**'02'24 0°-47'-34 max. Earth dist. -1374 Nov 03 j 21:08 1°M18'31 6.24918 AU conjunction minimum elong -1368 Apr 30 j 13:29 27°**Y**02'26 0°47'33 conjunction -1374 Nov 05 j 14:32 1°M42'12 0°43'09 max. Earth dist. -1368 May 02 j 11:07 27°**Y**28'41 6.12316 AU minimum elong -1374 Nov 05 j 14:34 1°M42'13 0°43'07 -1368 May 13 j 11:02 0°8 morning rise -1374 Nov 18 j 04:27 4°M34'34 morning rise -1368 May 14 j 08:41 0°812'21 -1373 Jan 06 j 11:47 15°M -1368 Jul 27 j 22:02 15°8 -1373 Mar 23 j 09:15 22°M 54'12 -1368 Sep 18 j 18:25 19°812'53 retrograde retrograde -1373 May 23 j 09:06 18°ML00'32 0°35'23 -1368 Nov 11 j 00:41 15°R8 opposition min. Earth dist. -1373 May 24 j 08:53 17°ML52'55 4.18749 AU min. Earth dist. -1368 Nov 16 j 06:33 14°**8**17'28 4.18420 AU -1373 Jun 17 j 16:33 15°RML -1368 Nov 17 j 06:24 14°**8**09'22 opposition 0°-42'-11 -1373 Jul 23 j 11:15 13°ML04'42 direct direct -1367 Jan 15 i 14:17 9°**8**08'17 -1373 Aug 27 j 20:22 15°M -1367 Mar 20 i 07:59 15°8 -1373 Nov 18 j 01:41 0°×7 evening set -1367 May 22 j 12:40 27° \(\begin{align*} 243'01 \end{align*} \) -1373 Nov 25 j 10:22 1°**х** 42′18 -1367 Jun 01 j 18:07 $\Pi^{\circ}0$ evening set max. Earth dist. -1373 Dec 07 j 05:30 4°**∡**¹28'03 6 12684 AU -1367 Jun 05 j 06:22 0°II47'09 0°-7'-35 conjunction -1373 Dec 08 j 03:31 4°**х** 40′58 0°02′28 minimum elong -1367 Jun 05 j 06:22 0°**Ⅱ**47'09 0°07'34 conjunction -1367 Jun 04 j 22:50 0°**Ⅱ**42'58 minimum elong -1373 Dec 08 j 03:30 4°**х** 40′57 0°02'27 behind sun begin behind sun begin -1373 Dec 07 j 19:29 4°**∡**36'17 behind sun end -1367 Jun 05 j 13:54 0°**I**51'21 behind sun end -1373 Dec 08 j 11:31 4°**х** 45'38 max. Earth dist. -1367 Jun 06 j 10:27 1°**Ⅱ**02'52 6.24640 AU -1373 Dec 20 j 21:35 7°×740'24 morning rise -1367 Jun 18 j 22:52 3°**Ⅲ**50′30 morning rise -1373 Dec 29 j 18:19 9°×43'41 -1367 Aug 14 j 21:09 15°**Ⅲ**23'32 desc. node asc. node -1372 Apr 27 j 14:02 27° ₹ 00'54 -1367 Oct 20 j 21:03 21°**II**49'40 retrograde retrograde -1372 Jun 27 j 08:09 22°**1**04'06 0°-29'-59 -1367 Dec 19 j 12:49 16°**Ⅱ**49'43 opposition opposition 0°19'37 -1372 Jun 27 j 15:08 22°**尽** 01'50 min. Earth dist. 4.07101 AU min. Earth dist. -1367 Dec 19 j 02:52 16°**I**53'02 4.30342 AU direct -1372 Aug 26 j 01:25 17° ₹ 10'23 direct -1366 Feb 18 j 03:31 11°**Ⅱ**46'49 -1372 Dec 01 j 10:36 0°ಕ evening set -1366 Jun 25 j 13:16 29°**Ⅲ**53'57 evening set -1372 Dec 28 j 15:43 6°る16'55 -1366 Jun 26 j 00:23 0 \circ \odot -1371 Jan 10 j 14:02 9°**ට**22'10 0°-40'-38 -1366 Jul 09 j 00:46 2°951'05 conjunction conjunction 0°33'23

-1371 Jan 10 j 13:59

minimum elong

9°**る**22'09

0°40'40

-1366 Jul 09 j 00:44

minimum elong

2°551'04 0°33'23

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1366 in astronomical counting style is the year 1367 BCE in historical counting style. opposition -1366 Jul 09 i 01:02 2°951'13 6.35262 AU -1360 Jul 02 i 10:54 27° ₹ 03'56 0°-39'-5 max. Earth dist. min. Earth dist. -1366 Jul 22 j 09:52 -1360 Jul 02 j 14:24 27° ₹ 02'47 4.05719 AU morning rise 5°9346'51 -1366 Nov 20 j 19:04 23°501'18 -1360 Aug 30 j 22:32 22° ₹ 10′22 retrograde direct -1365 Jan 19 j 17:17 18°505'12 1°12'49 0°₹ -1360 Nov 12 j 01:33 opposition 4.38944 AU -1365 Jan 20 j 01:13 18°502'36 -1359 Jan 02 j 13:40 11°₹20'38 min. Earth dist. evening set -1365 Mar 22 j 13:27 direct 13°901'47 -1365 Jul 24 j 00:03 conjunction -1359 Jan 15 j 13:00 14°**♂**26'47 0°-45'-53 0 $^{\circ}\Omega$ minimum elong -1359 Jan 15 j 12:57 14°**♂**26'45 0°**Ω**51'06 evening set -1365 Jul 27 j 22:53 0°45'55 max. Earth dist. -1365 Aug 09 j 03:02 -1359 Jan 15 j 21:49 14°♂32'04 3°**£**29′50 6.41143 AU max. Earth dist. 6.01614 AU morning rise -1359 Jan 28 j 14:56 17°る34'29 conjunction -1365 Aug 10 j 01:58 3°**Ω**42'20 1°03'30 -1359 Mar 26 j 12:30 0°≈ -1365 Aug 10 j 01:55 -1359 Jun 09 j 08:48 minimum elong 3°**Ω**42′18 1°03'31 retrograde 7°≈51'17 -1365 Aug 23 j 01:44 morning rise 6°**£**31′58 opposition -1359 Aug 08 j 15:15 2°≈49'59 -1°-33'-10 -1365 Oct 03 j 09:52 15°**Ω** min. Earth dist. -1359 Aug 07 j 23:43 2°≈55'09 3.99180 AU retrograde -1365 Dec 21 j 06:48 23°**Ω**26'47 -1359 Aug 31 j 08:57 30°R₹ opposition -1364 Feb 19 j 15:10 18° **Ω**33'38 1°44'31 direct -1359 Oct 06 j 00:24 27°る56'32 min. Earth dist. -1364 Feb 20 j 13:07 $18^{\circ}\Omega$ 26'33 4.41883 AU -1359 Nov 10 j 06:38 0°≈ -1364 Mar 21 j 10:13 15°RΩ -1358 Jan 28 j 17:09 direct -1364 Apr 22 j 03:56 13° **Ω**31'01 evening set -1358 Feb 07 j 20:28 17°≈24'01 -1364 May 24 j 04:20 $15^{\circ}\Omega$ -1364 Aug 21 j 10:19 0° m conjunction -1358 Feb 21 j 03:08 20°≈34'45 -1°-11'-42 evening set -1364 Aug 27 j 05:34 1° m 15'22 minimum elong -1358 Feb 21 i 03:06 20°≈34'45 1°11'43 max. Earth dist. -1364 Sep 07 j 08:36 3°M 41'25 6.40802 AU max. Earth dist. -1358 Feb 22 i 14:59 20°≈56'15 5.98548 AU morning rise -1358 Mar 06 j 13:06 23°≈47'13 conjunction -1364 Sep 09 i 00:51 4° 1003'30 1°15'39 -1358 Apr 02 j 09:14 0°**)**€ -1364 Sep 09 j 00:50 4° m 03'29 1°15'39 -1358 Jul 16 j 18:44 14° **)** 14'26 minimum elong retrograde -1364 Sep 21 j 17:23 6° m 50'21 -1358 Sep 13 j 08:44 9°**升**20′08 4.00103 AU morning rise min. Earth dist. -1363 Jan 20 j 09:57 23° M 52'18 opposition -1358 Sep 14 j 14:28 9°**)** 10'03 -1°-51'-43 retrograde -1363 Mar 22 j 02:21 19° m 00'36 1°47'41 -1358 Nov 11 j 12:32 opposition direct 4°**)** 14'37 -1357 Mar 17 j 01:54 23° **★** 38'45 -1363 Mar 23 j 10:38 18° m 50'18 4.38370 AU min. Earth dist. evening set -1363 May 23 j 18:35 13° m 59'49 direct -1363 Sep 18 j 14:14 -1357 Mar 30 j 15:58 26° ¥ 50'39 -1°-10'00 0∘ಹ conjunction -1357 Mar 30 j 16:01 26° ¥ 50'40 1°10'01 evening set -1363 Sep 27 j 02:47 1°**♀**52'32 minimum elong -1357 Apr 01 j 17:22 27°**米** 19'46 6.03260 AU -1363 Oct 07 j 19:08 4°**£**15′21 max. Earth dist. 6.34311 AU max. Earth dist. -1357 Apr 13 j 08:45 0°**Y**03′45 morning rise -1363 Oct 09 j 17:41 4°**£**41'22 1°06'47 -1357 Apr 13 j 02:20 $0^{\circ}\Upsilon$ conjunction -1363 Oct 09 j 17:43 -1357 Aug 21 j 15:39 19°**Υ**56'44 minimum elong 4°**£**41'23 1°06'47 retrograde morning rise -1363 Oct 22 j 06:50 7°**≏**29'31 min. Earth dist. -1357 Oct 18 j 21:51 15°**Υ**02'18 4.08098 AU retrograde -1362 Feb 21 j 20:36 25°**♀**03'58 opposition -1357 Oct 20 j 05:08 14°**Υ**51'36 -1°-27'-26 opposition -1362 Apr 23 j 19:52 20°**£**11'55 1°20'18 direct -1357 Dec 17 j 14:34 9°**Ƴ**53'03 min. Earth dist. -1362 Apr 25 j 03:41 20°**£**01'48 4.29272 AU -1356 Apr 21 j 22:53 28°**Y**54'32 evening set -1362 Jun 24 j 21:15 15°**2**13'42 -1356 Apr 26 j 17:32 0° 8 direct -1362 Oct 13 j 02:00 -1362 Oct 28 j 10:55 -1356 May 05 j 17:25 2°803'40 0°-42'-29 evening set 3°M26'47 conjunction max. Earth dist. -1362 Nov 08 j 11:06 5°M57'51 6.23370 AU -1356 May 05 j 17:28 2°**8**03'42 0°42'29 minimum elong -1356 May 07 j 15:25 max. Earth dist. 2°**8**30'02 6.13864 AU -1362 Nov 10 i 01:28 conjunction 6°M19'53 0°38'06 morning rise -1356 May 19 j 12:33 5°**8**12'55 minimum elong -1362 Nov 10 j 01:31 6°M19'54 0°38'05 -1356 Jul 04 i 06:45 15°8 morning rise -1362 Nov 22 i 15:36 9°**™**13'02 retrograde -1356 Sep 23 j 10:29 24°804'51 opposition -1362 Dec 18 i 16:16 15°ML -1356 Nov 21 i 22:47 19°\(\text{201'47}\) 0°-33'-33 retrograde -1361 Mar 28 j 07:59 27° 1 1 40'25 min. Earth dist. -1356 Nov 20 j 23:41 19°809'36 4.20145 AU -1361 May 28 j 07:02 22° 11.46'26 0°26'42 -1356 Dec 26 j 19:01 15°R8 opposition min. Earth dist. -1361 May 29 j 05:44 22° M 39'10 4.17120 AU -1355 Jan 20 j 10:20 14°800'29 direct -1361 Jul 28 j 05:32 17°ML50'58 -1355 Feb 14 j 09:25 15°8 direct -1361 Nov 01 j 03:26 0°×7 -1355 May 16 j 00:42 $\Pi^{\circ}0$ desc. node -1361 Nov 08 j 18:09 1°**х** 39′52 evening set -1355 May 27 j 11:16 2°**Ⅲ**30′48 evening set -1361 Nov 30 j 02:00 6°**х** 32′28 -1355 Jun 10 j 04:13 5°**Д**33'53 0°-1'-32 conjunction -1355 Jun 10 j 04:12 -1361 Dec 12 j 19:35 9° ₹32'01 0°-3'-51 5°**Ⅱ**33'53 0°01'31 conjunction minimum elong -1361 Dec 12 j 19:35 9°**∡**32'01 0°03'54 -1355 Jun 09 j 19:51 5°**Ⅱ**29'15 minimum elong behind sun begin -1361 Dec 12 j 11:39 9°**∡**¹27'22 -1355 Jun 10 j 12:32 5°**Ⅲ**38'30 behind sun begin behind sun end behind sun end -1361 Dec 13 j 03:32 9°**х** 36'41 max. Earth dist. -1355 Jun 11 j 04:17 5°**Ⅱ**47'18 6.26434 AU max. Earth dist. -1361 Dec 11 j 23:14 9°**尽**20'03 6.11108 AU morning rise -1355 Jun 23 j 20:01 8°**Ⅱ**36′08 morning rise -1361 Dec 25 j 14:41 12°**₹**32'33 asc. node -1355 Jun 24 j 05:58 8°**Ⅱ**41'37 -1360 Mar 27 j 08:01 0°ಕ retrograde -1355 Oct 25 j 07:16 26°**Ⅲ**27'05 retrograde -1360 May 02 j 17:15 2°**ප**01'17 -1355 Dec 24 j 00:08 21°**Ⅲ**27'37 opposition -1360 Jun 08 j 06:43 30°R ⊀ min. Earth dist. -1355 Dec 23 j 16:32 21°**Д**30'10 4.32079 AU

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1354 in astronomical counting style is the year 1355 BCE in historical counting style. direct -1354 Feb 22 j 20:26 16°**Д**24'33 behind sun end -1349 Dec 17 i 16:27 14° ₹ 20'56 -1354 Jun 09 j 07:21 max. Earth dist. -1349 Dec 16 j 17:12 14° ₹07'12 6.09094 AU 0ಂತಾ -1354 Jun 30 j 05:02 -1349 Dec 30 j 05:46 17° ₹ 18'51 4°9527'15 morning rise evening set -1348 Feb 27 j 14:20 0°궁 -1348 May 07 j 21:41 conjunction -1354 Jul 13 j 15:32 7°523'17 0°38'26 retrograde 6°る57'35 minimum elong -1354 Jul 13 j 15:29 -1348 Jul 07 j 12:03 7°923'15 0°38'27 opposition 1°**る**59'45 0°-47'-43 -1354 Jul 13 j 14:18 -1348 Jul 07 j 14:14 max. Earth dist. 7°**9**522'37 6.36828 AU min. Earth dist. 1°**る**59'03 4.03855 AU -1348 Jul 23 j 05:13 morning rise -1354 Jul 26 j 23:06 10°517'49 30°₽**⋌** 27°**х** 06′19 retrograde -1354 Nov 25 j 00:06 27°526'21 direct -1348 Sep 04 j 19:39 -1348 Oct 17 j 10:02 opposition -1353 Jan 24 j 01:11 22°530'42 1°18'38 0°궁 min. Earth dist. -1353 Jan 24 j 10:12 22°527'44 4.40241 AU evening set -1347 Jan 07 j 11:39 16°**る**22'28 -1353 Mar 27 j 00:36 17°527'20 direct -1353 Jul 07 j 13:02 -1347 Jan 20 j 12:02 19°**♂**29'46 0° Ω conjunction 0°-50'-42 -1347 Jan 20 j 11:59 19°**3**29'45 evening set -1353 Aug 01 j 08:30 5°Ω13'09 minimum elong 0°50'44 max. Earth dist. -1353 Aug 13 j 07:19 7°**Ω**48'51 6.42053 AU max. Earth dist. -1347 Jan 21 j 00:03 19°♂37'00 6.00076 AU morning rise -1347 Feb 02 j 15:18 22°♂38'44 conjunction -1353 Aug 14 j 10:08 8°**Ω**03'27 1°06'18 -1347 Mar 06 j 13:16 minimum elong -1353 Aug 14 j 10:05 8°**Ω**03'25 1°06'18 retrograde -1347 Jun 14 j 15:37 13°≈02'25 morning rise -1353 Aug 27 j 08:46 $10^{\circ}\Omega$ 52'13 opposition -1347 Aug 13 j 20:04 8°**≈**00'38 -1°-38'-12 8°**≈**06'57 -1353 Sep 15 j 19:14 15°Ω min. Earth dist. -1347 Aug 13 j 01:12 3.98167 AU retrograde -1353 Dec 25 j 12:34 $27^{\circ}\Omega 44'31$ direct -1347 Oct 11 j 00:39 3°**≈**07'04 opposition -1352 Feb 23 j 22:08 $22^{\circ}\Omega$ 51'38 1°46'36 -1346 Jan 10 i 21:45 15°≈ min. Earth dist. -1352 Feb 24 i 22:52 $22^{\circ}\Omega 43'40$ 4.42349 AU evening set -1346 Feb 13 i 01:37 22°≈38'05 direct -1352 Apr 26 j 14:15 $17^{\circ}\Omega 49'07$ -1352 Aug 05 j 07:00 0° m conjunction -1346 Feb 26 i 09:28 25°≈49'34 -1°-13'-8 -1352 Aug 31 j 10:56 5° m 31'50 -1346 Feb 26 j 09:27 25°≈49'33 1°13'09 evening set minimum elong -1352 Sep 11 j 11:31 7° m 56'36 6.40769 AU max. Earth dist. -1346 Feb 28 j 00:10 26°≈12'46 max. Earth dist. 5 98141 AU -1346 Mar 11 j 20:41 29°≈02'44 morning rise -1352 Sep 13 j 05:26 8° mb 19'37 1°15'37 -1346 Mar 15 j 21:20 0°**)**€ conjunction -1352 Sep 13 j 05:26 8° m 19'37 -1346 Jul 22 j 00:19 19°**∺** 30'07 minimum elong 1°15'38 retrograde -1352 Sep 25 j 21:06 11° Mp 06'09 -1346 Sep 18 j 11:36 14° \(\)35'54 4.00344 AU morning rise min. Earth dist. -1351 Jan 24 j 15:29 28° M 09'26 -1346 Sep 19 j 18:33 14° **∺** 25'22 -1°-50'-40 retrograde opposition -1351 Mar 26 j 10:34 23° m 17'44 1°45'37 -1346 Nov 16 j 16:55 9°**米**29'31 direct opposition -1351 Mar 27 j 19:04 23° m 07'23 4.37834 AU -1345 Mar 22 j 09:33 28° ¥ 53'06 min. Earth dist. evening set -1351 May 28 j 01:33 18° m 17'10 -1345 Mar 27 j 03:47 $0^{\circ}\Upsilon$ direct -1351 Sep 02 j 12:19 0∘**⊽** 2°**Y**'05'06 -1°-7'-21 -1351 Oct 01 j 07:15 -1345 Apr 05 j 00:45 evening set 6°**£**10'46 conjunction max. Earth dist. -1351 Oct 11 j 23:16 8°**≗**33'46 6.33306 AU minimum elong -1345 Apr 05 j 00:48 2° Y 05'07 1° 07'21 max. Earth dist. -1345 Apr 07 j 05:07 2°**Y**35'52 6.04132 AU conjunction -1351 Oct 13 j 21:48 8°**2**59'51 1°03'56 morning rise -1345 Apr 18 j 18:09 5°**Y**18′05 -1351 Oct 13 j 21:50 8°**♀**59'52 1°03'55 retrograde -1345 Aug 26 j 15:51 25°**Y**04'20 minimum elong -1351 Oct 26 j 10:46 11°**△**48'20 min. Earth dist. -1345 Oct 23 j 20:55 20°Υ09'58 4.09476 AU morning rise retrograde -1350 Feb 26 j 09:28 29°**2**28'09 -1345 Oct 25 j 04:13 19°**Υ**59'18 -1°-20'-56 opposition -1350 Apr 28 j 08:31 24°**♀**35'58 1°14'21 -1345 Dec 22 j 16:00 15° Υ 00'20 opposition direct -1350 Apr 29 j 17:23 24°**2**25'31 4.27821 AU -1344 Apr 09 j 10:51 0° 8 min. Earth dist. -1350 Jun 29 i 08:12 19°**£**38'02 direct evening set -1344 Apr 27 i 03:52 3°**8**57'52 -1350 Sep 26 i 09:45 -1344 May 10 j 22:25 evening set -1350 Nov 01 i 17:58 7°M54'33 conjunction 7°806'17 0°-37'-1 max. Earth dist. -1350 Nov 12 j 18:01 10°M26'10 6.21593 AU minimum elong -1344 May 10 j 22:27 7°**8**06'19 0°37'01 max. Earth dist. -1344 May 12 i 17:44 7°**8**31'01 6.15598 AU conjunction -1350 Nov 14 i 08:44 10°ML48'28 0°32'59 morning rise -1344 May 24 j 17:36 10°**8**14'43 -1350 Nov 14 i 08:46 10°ML48'29 0°32'59 -1344 Jun 15 j 04:11 15°**8** minimum elong -1350 Nov 26 j 23:29 13°M42'36 retrograde -1344 Sep 28 j 01:52 28°857'09 morning rise -1344 Nov 26 j 15:22 23°\(\overline{8}54'26 \) 0°-24'-38 -1350 Dec 02 j 15:06 15°M opposition -1349 Feb 21 j 22:17 0°×7 min. Earth dist. -1344 Nov 25 j 17:43 24°**8**01'46 4.22021 AU 2°**҂**18'50 retrograde -1349 Apr 02 j 02:42 direct -1343 Jan 25 j 07:50 18°**8**52'44 -1349 May 11 j 18:02 30°RML -1343 Apr 28 j 01:29 $\Pi^{\circ}0$ -1349 Jun 02 j 01:47 27°M24'27 0°18'07 -1343 May 02 j 16:46 0°**I**56′25 opposition asc. node min. Earth dist. -1349 Jun 02 j 22:14 27° M 17'52 4.15130 AU -1343 Jun 01 j 09:44 7°**Ⅱ**18'11 evening set -1349 Aug 01 j 18:35 22°M29'13 direct -1349 Sep 20 j 12:29 26°M 13'04 -1343 Jun 15 j 02:07 10°**Ⅲ**20'13 0°04'40 desc. node conjunction -1349 Oct 13 j 10:42 0°**∡** minimum elong -1343 Jun 15 j 02:06 10°**Ⅲ**20'12 0°04'42 evening set -1349 Dec 04 j 15:29 11° ₹ 16'19 behind sun begin -1343 Jun 14 j 17:59 10°**Ⅲ**15'43 behind sun end -1343 Jun 15 j 10:12 10°**Ⅲ**24'41 conjunction -1349 Dec 17 j 09:53 14° ₹ 17'04 0°-9'-51 max. Earth dist. -1343 Jun 15 j 23:55 10°**Ⅲ**32'19 6.28286 AU -1349 Dec 17 j 09:52 14° ₹ 17'03 0°09'54 morning rise -1343 Jun 28 j 16:48 13°**Ⅲ**21'13 minimum elong

-1343 Oct 03 j 20:34

-1349 Dec 17 j 03:18 14° ₹ 13'11

behind sun begin

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1343 in astronomical counting style is the year 1344 BCE in historical counting style. -1343 Oct 29 i 17:50 1°504'06 retrograde retrograde -1337 Apr 07 j 07:03 7°**∡**15'41 -1343 Nov 24 j 10:49 30°RⅡ -1337 Jun 07 j 03:51 2°**₹**20'56 0°08'48 opposition opposition -1343 Dec 28 j 11:38 26° **II** 05'14 0°36'15 min. Earth dist. -1337 Jun 07 j 22:58 2°**✓**14'46 4.13197 AU min. Earth dist. -1343 Dec 28 j 06:11 26°**Д**07'02 4.33727 AU -1337 Jun 26 j 04:16 30°RM -1342 Feb 27 j 12:34 21°**Д**02'03 -1337 Jul 30 j 09:06 27° ML31'13 direct desc. node -1337 Aug 06 j 16:27 27°M26'03 -1342 May 21 j 19:12 0ಂತಾ direct -1342 Jul 04 j 20:59 evening set 9°900'54 -1337 Sep 16 j 09:15 0°**∡** -1337 Dec 09 j 11:46 16°**∡**18'14 evening set conjunction -1342 Jul 18 j 06:06 11°\$55'52 0°43'20 -1342 Jul 18 j 06:03 11°555'51 minimum elong 0°43'22 conjunction -1337 Dec 22 j 06:56 19° ₹20'04 0°-16'-11 max. Earth dist. -1342 Jul 17 j 23:40 11°952'22 6.38113 AU minimum elong -1337 Dec 22 j 06:54 19°**✗** 20'04 0°16'13 -1342 Jul 31 j 12:30 14°549'22 -1337 Dec 22 j 06:23 19° ₹ 19'45 morning rise behind sun begin -1342 Oct 25 j 08:39 -1337 Dec 22 j 07:26 19° ₹20'22 $0^{\circ}\Omega$ behind sun end retrograde -1342 Nov 29 j 08:09 1°£63′25 max. Earth dist. -1337 Dec 21 j 17:39 19°**尽** 12'12 6.07372 AU -1341 Jan 03 j 07:55 30°Rூ morning rise -1336 Jan 04 j 03:52 22°**尽**23'03 opposition -1341 Jan 28 j 10:11 26°958'14 1°24'11 -1336 Feb 06 j 16:51 0°ਰ min. Earth dist. -1341 Jan 28 j 22:12 26°554'19 4.41098 AU retrograde -1336 May 13 j 05:17 12°**⋜**10'17 direct -1341 Mar 31 j 13:24 21°554'52 opposition -1336 Jul 12 j 19:17 7°**る**11'55 0°-56'-30 -1341 Jun 18 j 21:11 $0^{\circ}\Omega$ min. Earth dist. -1336 Jul 12 j 17:25 7°る12'32 4.02557 AU evening set -1341 Aug 05 j 19:22 9°**£**38′59 direct -1336 Sep 09 j 21:15 2°る18'39 evening set -1335 Jan 12 j 15:00 21°る38'14 conjunction -1341 Aug 18 j 19:59 $12^{\circ}\Omega$ 28'41 1°08'50 -1335 Jan 25 j 16:19 24°₹46'18 0°-55'-22 minimum elong -1341 Aug 18 j 19:57 $12^{\circ}\Omega$ 28'40 1°08'51 conjunction max. Earth dist. -1341 Aug 17 j 15:26 12°**Ω**13'08 6.42405 AU minimum elong -1335 Jan 25 j 16:16 24°**3**46'16 0°55'25 -1341 Aug 30 j 10:13 15°**Ω** max. Earth dist. -1335 Jan 26 j 08:53 24°**궁**56'16 5.99324 AU -1341 Aug 31 j 17:17 15° Ω 16'49 -1335 Feb 07 j 20:41 27°る56'04 morning rise morning rise -1341 Nov 22 j 06:25 -1335 Feb 16 j 13:45 0°≈ 0°m -1341 Dec 29 j 19:44 2° m 08'42 -1335 May 03 j 20:37 15°≈ retrograde -1340 Feb 05 j 16:20 30°R**Ω** -1335 Jun 20 j 01:16 18°≈23'00 retrograde -1340 Feb 28 j 07:35 27° **Ω**16'07 1°48'16 -1335 Aug 06 j 13:56 15°R≈ opposition -1340 Feb 29 j 09:25 27° Ω 07'49 4.42194 AU min. Earth dist. -1335 Aug 18 j 06:48 13°≈27'46 3.98078 AU min. Earth dist. -1340 Apr 30 j 23:54 22°**Ω**13'51 -1335 Aug 19 j 04:04 13°≈20'38 direct opposition -1°-42'-37 -1340 Jul 17 j 14:12 0° Mp -1335 Oct 16 j 07:31 8°**≈**26'49 direct -1340 Sep 04 j 19:34 9° m 57'09 -1335 Dec 20 j 15:07 15°≈ evening set -1340 Sep 15 j 16:46 12° Mp 20'25 6.40100 AU -1334 Feb 18 j 09:00 27°≈57'34 max. Earth dist. evening set -1334 Feb 26 j 22:14 0°**₩** -1340 Sep 17 j 13:08 12° m 44'50 1°15'14 conjunction -1334 Mar 03 j 18:03 minimum elong -1340 Sep 17 j 13:09 12° m/44'50 1°15'14 conjunction 1°**)** 69'16 -1°-14'-4 morning rise -1340 Sep 30 j 04:18 15° Mp 31'25 minimum elong -1334 Mar 03 j 18:03 1°**米**09'16 1°14'06 -1340 Dec 18 j 03:46 0∘**⊽** max. Earth dist. -1334 Mar 05 j 13:32 1°**¥**35'17 5.98719 AU retrograde -1339 Jan 29 j 05:02 2°**£**38'23 morning rise -1334 Mar 17 j 06:09 4°**)**€22'33 -1339 Mar 12 j 20:11 30°R Mp retrograde -1334 Jul 27 j 04:59 24°****45'26 -1339 Mar 30 j 23:56 27° m 46'46 1°42'57 -1334 Sep 24 j 21:57 19° **★** 40'27 -1°-48'-45 opposition opposition min. Earth dist. -1339 Apr 01 j 10:12 27° m 35'51 min. Earth dist. -1334 Sep 23 j 14:12 19° **€** 51'15 4.01539 AU 4.36684 AU direct -1339 Jun 01 j 14:38 22° Mp 46'30 -1334 Nov 21 j 21:03 14°**)** 44'10 direct -1339 Aug 14 i 07:56 $0^{\circ}\Upsilon$ -1333 Mar 09 j 23:24 -1339 Oct 05 j 16:32 10° **2**42'52 evening set evening set -1333 Mar 27 j 15:59 4°Υ03'43 -1339 Oct 16 j 08:25 13° **2**06'17 6.31765 AU max. Earth dist. -1333 Apr 10 j 07:44 7°**Y**15'13 -1°-4'-16 conjunction conjunction -1339 Oct 18 i 07:00 13° \(\Omega\) 32'30 1°00'35 minimum elong -1333 Apr 10 i 07:46 7°**Υ**15'15 1°04'17 -1339 Oct 18 j 07:02 13° **2**32'31 1°00'34 max. Earth dist. -1333 Apr 12 j 10:58 7°**Υ**45'12 6.05802 AU minimum elong -1333 Apr 24 j 01:49 10°**Υ**27'40 -1339 Oct 30 j 19:58 16° **2**21'38 morning rise morning rise -1338 Jan 08 j 18:24 -1333 Aug 24 j 21:03 0°8 0°M retrograde -1338 Mar 03 j 03:35 4°ML08'45 retrograde -1333 Aug 31 j 10:32 0°804'20 -1338 Apr 27 j 10:05 30°R Ω -1333 Sep 07 j 00:14 30°R℃ -1333 Oct 28 j 17:12 25°**Υ**09'58 4.11426 AU opposition -1338 May 03 j 03:37 29° **2**16'21 1°07'38 min. Earth dist. -1333 Oct $30 \text{ j } 00:07 \quad 24^{\circ} \Upsilon 59'25$ -1338 May 04 j 10:40 29°**♀**06'27 min. Earth dist. 4.25992 AU opposition -1°-14'-2 -1333 Dec 27 j 15:42 19°**Υ**59'57 -1338 Jul 03 j 22:20 24°**△**18'49 direct direct -1338 Sep 05 j 10:57 -1332 Mar 22 j 01:21 0°8 0°M -1338 Nov 06 j 07:38 12°M39'55 -1332 May 02 j 04:48 8°**8**51'50 evening set evening set -1338 Nov 16 j 10:38 15°M max. Earth dist. -1338 Nov 17 j 10:44 15°ML13'57 6.19641 AU conjunction -1332 May 15 j 23:26 11°**8**59'20 0°-31'-29 minimum elong -1332 May 15 j 23:28 11°**8**59'22 0°31'28 conjunction -1338 Nov 18 j 22:44 15°M34'47 0°27'21 max. Earth dist. -1332 May 17 j 16:35 12°**8**22'43 6.17674 AU minimum elong -1338 Nov 18 j 22:46 15°ML34'48 0°27'20 morning rise -1332 May 29 j 18:09 15°**8**06'40 morning rise -1338 Dec 01 j 14:01 18°M30'00 -1332 May 29 j 06:19 15°**8**

-1332 Aug 14 j 14:19

-1337 Jan 24 j 23:53

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1332 in astronomical counting style is the year 1333 BCE in historical counting style. retrograde -1332 Oct 02 j 15:10 3°**II**39'08 morning rise -1327 Nov 04 i 06:41 20° **2**57'54 -1332 Nov 20 j 18:53 30°R& -1327 Dec 16 j 20:47 oom. -1332 Nov 30 j 09:24 28°843'18 4.24004 AU -1326 Mar 08 j 02:16 min. Earth dist. retrograde 8°M.53'12 opposition -1326 May 08 j 00:55 4°M00'36 1°00'21 opposition -1326 May 09 j 07:13 -1331 Jan 30 j 02:06 23°**8**34'55 direct min. Earth dist. 3°M50'55 4.24060 AU -1331 Mar 12 j 13:24 26°**8**11'11 -1326 Jun 13 j 19:37 30°ŖΩ asc. node direct -1331 Apr 07 j 18:53 $0^{\circ}\Pi$ -1326 Jul 08 j 16:18 29°**₽**03'30 evening set -1331 Jun 06 j 04:10 11°**II**55'24 -1326 Aug 02 j 10:26 0°M -1326 Oct 31 j 01:19 15°M₊ conjunction -1331 Jun 19 j 19:39 14°**Ⅲ**56'21 0°10'31 evening set -1326 Nov 10 j 22:54 17°M29'16 minimum elong -1331 Jun 19 j 19:39 14°**Ⅲ**56'21 0°10'32 max. Earth dist. -1326 Nov 22 j 05:41 20°M06'04 6.17753 AU -1331 Jun 19 j 13:17 14°**I** 52'50 behind sun begin behind sun end -1331 Jun 20 j 02:01 14°**I**59'51 conjunction -1326 Nov 23 j 14:30 20°M25'08 0°21'27 6.30013 AU max. Earth dist. -1331 Jun 20 j 12:43 15°**Ⅲ**05'47 minimum elong -1326 Nov 23 j 14:32 20°M25'09 0°21'26 morning rise -1331 Jul 03 j 09:27 17°**II**56'14 morning rise -1326 Dec 06 j 06:24 23°M21'26 -1331 Sep 02 j 06:10 -1325 Jan 04 j 23:08 0°**∡**¹ retrograde -1331 Nov 03 j 00:31 5°932'02 retrograde -1325 Apr 12 j 10:30 12° ₹ 16'13 opposition -1330 Jan 01 j 19:47 0°ഇ33'41 0°44'01 desc. node -1325 Jun 07 j 23:15 7°**∡** 54'36 0°934'39 min. Earth dist. -1330 Jan 01 j 16:53 4.35087 AU opposition -1325 Jun 12 j 07:33 7°**∡**°21'01 0°00'-42 -1330 Jan 06 j 01:29 30°RⅡ min. Earth dist. -1325 Jun 12 j 22:57 7°**х** 16′03 4.11513 AU direct -1330 Mar 04 j 00:22 25°**Ⅲ**30'21 direct -1325 Aug 11 j 14:18 2° ₹26'33 -1325 Dec 14 j 09:31 21° ₹22'47 -1330 Apr 29 i 17:07 0ಂತಾ evening set evening set -1330 Jul 09 j 09:36 13°526'29 conjunction -1325 Dec 27 i 05:19 24° ₹25'29 0°-22'-28 conjunction -1330 Jul 22 j 17:38 16°\$20'38 0°47'51 -1325 Dec 27 j 05:17 24° ₹25'28 0°22'30 minimum elong -1330 Jul 22 j 17:35 16°\$20'36 0°47'52 max. Earth dist. -1325 Dec 26 j 20:13 24° **x** 20'05 6.06039 AU minimum elong -1330 Jul 22 j 07:58 16°515'21 -1324 Jan 09 j 03:11 27° ₹29'27 max. Earth dist. 6.39006 AU morning rise -1330 Aug 04 j 22:39 19°5513'13 -1324 Jan 19 j 20:03 0°る morning rise -1330 Sep 28 j 05:16 -1324 May 18 j 13:53 17°**⋜**23'30 0 $^{\circ}\Omega$ retrograde -1324 Jul 18 j 02:32 12°る24'32 -1330 Dec 03 j 14:26 -1°-4'-52 retrograde 6°**Ω**14'21 opposition 1°Ω19'41 1°29'08 -1329 Feb 01 j 17:17 -1324 Jul 17 j 21:44 12°る26'07 4.01700 AU min. Earth dist. opposition -1329 Feb 02 j 07:48 $1^{\circ}\Omega 14'57$ 4.41484 AU -1324 Sep 15 j 01:40 min. Earth dist. direct 7°**る**31'19 -1329 Feb 12 j 01:03 30°Rூ -1323 Jan 17 j 18:18 26° ₹ 52'47 evening set -1329 Apr 04 j 22:55 26°516'26 direct -1329 May 26 j 17:43 $0^{\circ}\Omega$ -1323 Jan 30 j 20:42 0°≈01'26 0°-59'-36 conjunction -1329 Aug 10 j 04:25 14° Ω00'17 -1323 Jan 30 j 20:39 evening set minimum elong 0°≈01'25 0°59'37 -1323 Jan 30 j 18:18 -1329 Aug 14 j 18:37 15°**Ω** 0°≈ max. Earth dist. -1329 Aug 21 j 18:54 $16^{\circ}\Omega$ 31'37 6.42232 AU max. Earth dist. -1323 Jan 31 j 18:40 0°≈14'38 5.99009 AU morning rise -1323 Feb 13 j 02:01 3°≈11'46 conjunction -1329 Aug 23 j 03:50 16° **Ω**49'34 1°10'57 -1323 Apr 07 j 11:15 15°≈ -1329 Aug 23 j 03:48 16°**Ω**49'33 1°10'57 retrograde -1323 Jun 25 j 09:22 23°≈39'52 minimum elong -1329 Sep 05 j 00:16 19°**Ω**37'24 -1323 Aug 23 j 11:06 18°≈44'49 3.98365 AU morning rise min. Earth dist. -1329 Oct 27 j 00:04 -1323 Aug 24 j 10:14 18°≈37'03 -1°-46'-9 opposition -1328 Jan 03 j 05:03 6° m 30'44 -1323 Sep 23 j 20:42 15°R≈ retrograde -1328 Mar 03 j 17:01 1° m/38'25 1°49'20 -1323 Oct 21 j 11:44 13°≈43'02 opposition direct min. Earth dist. -1328 Mar 04 j 21:03 1° m 29'25 4.41503 AU -1323 Nov 18 i 01:17 15°≈ -1328 Mar 16 j 17:31 30°RΩ -1322 Feb 09 i 23:08 0°**∀** direct -1328 May 05 j 09:51 $26^{\circ}\Omega$ 36'21 evening set -1322 Feb 23 j 14:57 3°¥12'30 -1328 Jun 23 i 17:27 0° m -1328 Sep 09 i 03:51 14° m 21'48 conjunction -1322 Mar 09 i 00:50 6°**¥**24'14 -1°-14'-25 evening set max. Earth dist. -1328 Sep 20 j 00:38 16° mp 45'14 -1322 Mar 09 i 00:50 6°¥24'15 1°14'27 6.38943 AU minimum elong -1322 Mar 10 j 21:12 6°**升**50'42 5.99539 AU max. Earth dist. -1328 Sep 21 j 20:59 17° mp 09'43 1°14'24 -1322 Mar 22 j 14:03 conjunction morning rise 9°**)** 37'34 minimum elong -1328 Sep 21 j 20:59 17° mp 09'44 1°14'23 retrograde -1322 Aug 01 j 05:13 29°\\$55'13 morning rise -1328 Oct 04 j 11:28 19° m 56'32 opposition -1322 Sep 29 j 22:44 24° ¥ 50'06 -1°-46'-2 -1328 Nov 22 j 20:38 0∘∙თ min. Earth dist. -1322 Sep 28 j 13:58 25° **★**01'16 4.02811 AU -1322 Nov 26 j 22:54 19°**米**53'24 retrograde -1327 Feb 02 j 17:58 7°**₽**08'46 direct $0^{\circ}\Upsilon$ -1327 Apr 04 j 14:12 2° 217'12 1°39'41 -1321 Feb 19 j 10:30 opposition -1321 Apr 01 j 20:11 9°**Y**09'07 min. Earth dist. -1327 Apr 05 j 23:53 2°**2**06'28 4.35147 AU evening set -1327 Apr 23 j 06:06 30°R M -1321 Apr 15 j 12:42 12°**Υ**20'13 -1°00'-47 direct -1327 Jun 06 j 01:45 27° Mp 17'22 conjunction -1327 Jul 19 j 12:17 0∘**⊽** minimum elong -1321 Apr 15 j 12:45 12° **Y**20'14 1°00'47 evening set -1327 Oct 10 j 03:16 15° \sim 17'39 max. Earth dist. -1321 Apr 17 j 15:45 12°**Υ**49'57 6.07421 AU max. Earth dist. -1327 Oct 20 j 19:24 17°**£**41'54 6.29978 AU morning rise -1321 Apr 29 j 07:02 15°**Υ**32'02 -1321 Jul 09 j 07:25 0°8 -1327 Oct 22 j 17:30 18°**♀**07'58 -1321 Sep 05 j 05:56 4°859'48 conjunction 0°56'50 retrograde -1327 Oct 22 j 17:33 18°**♀**07'59 -1321 Nov 03 j 17:59 29°**Υ**'55'11 -1°-6'-47 minimum elong 0°56'49 opposition

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 8

•	nical year style is used: Tl		•	· · · · · · · · · · · · · · · · · · ·		, ,	ge o
min. Earth dist.	-1321 Nov 02 j 13:16	-	4.13205 AU	max. Earth dist.	-1315 Oct 25 j 09:09		
iiiii. Eartii tist.	-1321 Nov 02 j 13:10 -1321 Nov 03 j 03:51		4.13203 AU	max. Earth dist.	-1313 Oct 23 J 09.09	22 == 20 30	0.26436 AU
J: 4	-1321 Nov 03 J 03:31 -1320 Jan 01 j 14:13	30° γ 1 24° Υ 55'19			1215 0-4 27:04-27	229 0 45120	0°52'44
direct	-			conjunction	-1315 Oct 27 j 04:37		
. ,	-1320 Feb 28 j 21:15	0° 8		minimum elong	-1315 Oct 27 j 04:40		0°52'44
evening set	-1320 May 07 j 04:23			morning rise	-1315 Nov 08 j 17:48		
	-1320 May 12 j 21:43	13°0		. 1	-1315 Nov 28 j 14:28	0°M	
. ,.	1220 M 20 : 22 52	1.60 🔾 4011.4	00.251.40	retrograde	-1314 Mar 12 j 22:43		0052142
conjunction	-1320 May 20 j 22:53	16° 8 49'14		opposition	-1314 May 12 j 22:30	8°M45'37	0°52'42
minimum elong	-1320 May 20 j 22:55	16° 8 49'16	0°25'48	min. Earth dist.	-1314 May 14 j 02:27	8°M36'42	4.22498 AU
max. Earth dist.	-1320 May 22 j 13:03	17° 8 10'50	6.19476 AU	direct	-1314 Jul 13 j 09:25	3°M48'59	
morning rise	-1320 Jun 03 j 17:17	19° 8 55'37		. ,	-1314 Oct 13 j 16:20		
	-1320 Jul 21 j 16:59	0°Ⅱ 8°Ⅱ19'22		evening set	-1314 Nov 15 j 14:07		(1(20(AII
retrograde	-1320 Oct 07 j 01:34	8° П 19'22 3° П 17'39	00.71.0	max. Earth dist.	-1314 Nov 26 j 23:40	24-11630:33	6.16286 AU
opposition	-1320 Dec 05 j 16:02	3° П 23'31		conjunction	1214 N 20 : 05.50	250 m 14125	0915120
min. Earth dist.	-1320 Dec 04 j 22:39		4.25674 AU	-	-1314 Nov 28 j 05:58		0°15'29
	-1319 Jan 01 j 11:27	30°R ႘ 28° ႘ 35'19		minimum elong	-1314 Nov 28 j 05:58		0°15'28
asc. node	-1319 Jan 20 j 10:27	_		behind sun begin	-1314 Nov 28 j 03:23		
direct	-1319 Feb 03 j 17:05	_		behind sun end	-1314 Nov 28 j 08:34		
	-1319 Mar 09 j 10:38	0°II		morning rise	-1314 Dec 10 j 22:34		
evening set	-1319 Jun 10 j 21:56	16°Щ32′12		. 1	-1314 Dec 18 j 18:27	0°×7	
	1210 1 24:12.26	100 Т20112	0017117	retrograde	-1313 Apr 17 j 13:20		
conjunction	-1319 Jun 24 j 12:36		0°16'17	desc. node	-1313 Apr 17 j 17:18		00 101 4
minimum elong	-1319 Jun 24 j 12:34			opposition	-1313 Jun 17 j 10:01		0°-10'-4
max. Earth dist.	-1319 Jun 25 j 01:16		6.31433 AU	min. Earth dist.	-1313 Jun 17 j 22:44		4.10251 AU
morning rise	-1319 Jul 08 j 01:19			direct	-1313 Aug 16 j 13:17	7°×724'01	
1	-1319 Aug 12 j 16:40	0°9		evening set	-1313 Dec 19 j 05:37	26° × '22'49	
retrograde	-1319 Nov 07 j 09:33	10°901'01	0051122		1212 1 01:02 16	200 72(11)	00 201 25
opposition	-1318 Jan 06 j 04:24	5°903'14	0°51'32	conjunction	-1312 Jan 01 j 02:16		0°-28'-25
min. Earth dist.	-1318 Jan 06 j 04:48	5°503'06	4.36156 AU	minimum elong	-1312 Jan 01 j 02:14		0°28'28
t' .	-1318 Mar 07 j 05:48	30°RⅡ		max. Earth dist.	-1313 Dec 31 j 22:21		6.05100 AU
direct	-1318 Mar 08 j 13:27	29° I 59'50			-1312 Jan 03 j 10:54	0°る	
	-1318 Mar 09 j 21:07	0°95		morning rise	-1312 Jan 14 j 00:56	2°る31'00	
evening set	-1318 Jul 13 j 22:23	1/°954'03		retrograde	-1312 May 23 j 20:04		10 121 20
	1210 1 1 27:05 14	200015125	0050105	opposition	-1312 Jul 23 j 07:04		-1°-12'-29
conjunction	-1318 Jul 27 j 05:14	20°547'27	0°52'07	min. Earth dist.	-1312 Jul 22 j 23:46		4.01200 AU
minimum elong	-1318 Jul 27 j 05:11		0°52'08	direct	-1312 Sep 20 j 02:38		
max. Earth dist.	-1318 Jul 26 j 15:32		6.39627 AU		-1311 Jan 14 j 09:32	0° ≈	
morning rise	-1318 Aug 09 j 09:04			evening set	-1311 Jan 22 j 18:59	1° ≈ 59'32	
1	-1318 Sep 08 j 16:33	0° Ω		. ,.	1211 F 1 04 : 22 07	5000124	10 21 12
retrograde	-1318 Dec 07 j 21:13	10° Ω 38'25	1022140	conjunction	-1311 Feb 04 j 22:07	5°≈08'34	-1°-3'-13
opposition	-1317 Feb 06 j 01:27	5° Ω 44'07	1°33'40	minimum elong	-1311 Feb 04 j 22:05	5°≈08'32	1°03'15
min. Earth dist.	-1317 Feb 06 j 17:53	5° Ω 38'47	4.41659 AU	max. Earth dist.	-1311 Feb 05 j 22:11	5°≈23'01 8°≈19'22	5.98956 AU
direct	-1317 Apr 09 j 08:32	0° Ω 40'56		morning rise	-1311 Feb 18 j 04:37		
avanina aat	-1317 Jul 29 j 13:55 -1317 Aug 14 j 14:19	15° Ω 18° Ω 24'59		rotro arado	-1311 Mar 19 j 01:10	15° ≈ 28° ≈ 47'31	
evening set max. Earth dist.	• .	18 δ (24 39 20° Ω 55'22	6 41045 ATT	retrograde min. Earth dist.	-1311 Jun 30 j 11:13	28 ≈4731 23°≈52'48	3.98787 AU
max. Earm dist.	-1317 Aug 26 j 02:45	20 66 33 22	6.41945 AU		-1311 Aug 28 j 11:06		
conjunction	-1317 Aug 27 j 12:46	21° Ω 13'58	1°12'41	opposition direct	-1311 Aug 29 j 12:30 -1311 Oct 26 j 12:30	23°≈44'15 18°≈49'55	-1°-48'-42
minimum elong	-1317 Aug 27 j 12:45	21°Ω13'57	1°12'42	direct	-1311 Oct 20 j 12:30 -1310 Jan 23 j 05:45	10 ≈ 49 33	
morning rise	-1317 Aug 27 j 12.45 -1317 Sep 09 j 08:05	24° Ω 01'29	1 14 74	evening set	-1310 Jan 23 j 03.43 -1310 Feb 28 j 17:32	8° ∺ 17'54	
morning 1150	-1317 Sep 09 j 08:03 -1317 Oct 07 j 17:46	0°M)		evening set	1510 FCU 20 J 17.32	o / (1/34	
retrograde	-1317 Oct 07 j 17:46 -1316 Jan 07 j 14:47	10° Mp 56'31		conjunction	-1310 Mar 14 j 04:32	11°¥20'42	-1°-14'-11
opposition	-1316 Mar 08 j 03:47	6° Mp 04'26	1°49'50	minimum elong	-1310 Mar 14 j 04:33		1°14'11
min. Earth dist.	-1316 Mar 09 j 08:55	5° M) 55'06	4.40795 AU	max. Earth dist.	-1310 Mar 16 j 03:08	11° X 57'25	6.00389 AU
direct	-1316 May 09 j 20:34	1°M)02'41	7.40/33 AU	max. Earth dist.	-1310 Mar 16 j 03:08 -1310 Mar 27 j 18:27	14° H 42'58	0.00307 AU
evening set	-1316 Sep 13 j 13:12	18° m 50'00		morning risc	-1310 Jun 09 j 17:45	0° Υ	
max. Earth dist.	-1316 Sep 13 j 13.12 -1316 Sep 24 j 07:21	21° m) 12'28	6.37864 AU	retrograde	-1310 Juli 09 j 17.43	4° Υ 55'21	
max. Darui uist.	1510 Sep 24 J 07.21	21 HV 1220	0.5700T AU	ionogrado	-1310 Aug 00 j 04.29	4 13321 30° ₹	
conjunction	-1316 Sep 26 j 05:35	21° m 38'05	1°13'09	opposition	-1310 Oct 03 j 13:04 -1310 Oct 04 j 19:50		-1°-42'-38
minimum elong	-1316 Sep 26 j 05:36	21° m 38'05	1°13'08	min. Earth dist.	-1310 Oct 04 j 19.30 -1310 Oct 03 j 12:15	0° Υ 00'58	4.03988 AU
morning rise	-1316 Sep 26 j 03.36 -1316 Oct 08 j 19:48	24° Mp 25'11	1 13 00	direct	-1310 Oct 03 j 12.13 -1310 Dec 01 j 22:50		T.03700 AU
morning 1130	-1316 Nov 03 j 20:41	0° ت 11 کے اال		ancet	-1310 Dec 01 j 22:30 -1309 Jan 28 j 12:00	24 γ (33 03	
retrograde	-1315 Feb 07 j 10:01	0 == 11° £ 42'27		evening set	-1309 Jan 28 j 12:00 -1309 Apr 06 j 21:21	0 ¶ 14° Υ 05'37	
opposition	-1315 Apr 09 j 06:05	6° £ 50'47	1°35'48	ovening set	1507 Apr 00 J 21.21	17 1000/	
min. Earth dist.	-1315 Apr 10 j 15:46	6° £ 40'04	4.33779 AU	conjunction	-1309 Apr 20 j 14:28	17° ℃ 16'21	0°-56'-57
direct	-1315 Jun 10 j 15:49	1° ⊆ 51'19		minimum elong	-1309 Apr 20 j 14:31	17° Υ 16'23	0°56'58
evening set	-1315 Oct 14 j 14:16	19° £ 54'34		max. Earth dist.	-1309 Apr 20 j 14:31		6.08824 AU
J. J 5000	1515 000 143 14.10	., - 5757		Zurur uist.	1507 11pt 22 j 10.51	1, 1 13 4-T	5.00021710

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1309 in astronomical counting style is the year 1310 BCE in historical counting style. -1309 May 04 j 09:15 20°**Y**27'44 direct -1303 Jun 15 i 04:47 6° **2**23'34 morning rise -1309 Jun 17 j 05:36 -1303 Oct 19 j 00:17 24° \$\oldsymbol{\Omega}\$29'21 0°X evening set -1309 Sep 09 j 20:38 -1303 Oct 29 j 18:52 26°**♀**56'01 9°**8**47'35 max. Earth dist. 6.27006 AU retrograde -1309 Nov 07 j 04:57 min. Earth dist. 4°**8**52'53 4.14695 AU -1309 Nov 08 j 09:04 4°**8**43'19 opposition 0°-59'-18 conjunction -1303 Oct 31 j 14:28 27°**£**20'50 0°48'20 -1303 Oct 31 j 14:31 27°**£**20'51 -1309 Dec 24 j 09:18 30°**Ŗ**♈ minimum elong 0°48'19 -1303 Nov 12 j 06:31 29°Y43'06 direct -1308 Jan 06 j 07:29 0°M -1308 Jan 19 j 08:44 0° 8 morning rise -1303 Nov 13 j 04:02 0°M12'11 -1308 Apr 26 j 11:56 15°**8** -1302 Jan 29 j 01:07 15°M₊ evening set -1308 May 12 j 01:36 18°**8**26'58 retrograde -1302 Mar 17 j 19:06 18°M21'46 -1302 May 05 j 15:29 15°RM -1308 May 25 j 19:55 21° \(\delta 32'57 \) 0°-20'-7 -1302 May 17 j 18:58 13°M28'31 conjunction opposition 0°44'43 -1308 May 25 j 19:56 21°**8**32'58 minimum elong 0°20'07 min. Earth dist. -1302 May 18 j 21:18 13°M20'05 4.20890 AU max. Earth dist. -1308 May 27 j 05:56 21°**8**52'09 6.20950 AU direct -1302 Jul 18 j 02:26 8°MJ32'11 morning rise -1308 Jun 08 j 13:57 24°**8**38'32 -1302 Sep 23 j 14:59 15°M -1308 Jul 03 j 03:05 evening set -1302 Nov 20 j 04:04 27° ML 04'49 retrograde -1308 Oct 11 j 13:14 12°**Д**55'09 asc. node -1308 Dec 01 j 03:36 9°**Ⅱ**05'35 conjunction -1302 Dec 02 j 20:33 0°**∡**°02′21 opposition -1308 Dec 10 j 02:43 7°**Ⅱ**53'59 0°01'24 minimum elong -1302 Dec 02 j 20:34 0°**∡**'02'21 0°09'25 min. Earth dist. -1308 Dec 09 j 12:31 7°**Ⅱ**58'46 4.27001 AU behind sun begin -1302 Dec 02 j 13:51 29°M 58'27 direct -1307 Feb 08 j 08:39 2°**Ⅱ**51'30 behind sun end -1302 Dec 03 j 03:18 0°**₹**06'16 evening set -1307 Jun 15 j 14:27 21°**Ⅲ**05'47 max. Earth dist. -1302 Dec 01 i 18:15 29°M 46'58 6.14674 AU -1302 Dec 02 i 16:33 0°**∡**¹ conjunction -1307 Jun 29 i 04:23 24° **I** 05'02 0°21'51 morning rise -1302 Dec 15 i 13:43 3°**₹**00'32 -1307 Jun 29 j 04:21 24°**Ⅲ**05'01 0°21'53 desc. node -1301 Feb 25 j 16:10 17° ₹ 37'08 minimum elong -1307 Jun 29 j 14:21 24°**Ⅲ**10'31 retrograde -1301 Apr 22 j 16:27 22° ₹ 11'01 max. Earth dist. 6 32529 AU -1307 Jul 12 j 16:00 27°**Ⅲ**02'59 opposition -1301 Jun 22 j 11:48 17° **₹**14'50 morning rise 0°-19'-24 -1307 Jul 26 j 07:23 -1301 Jun 22 j 22:24 17° **₹**11'24 min. Earth dist. 4.08758 AU 0ംഉ -1307 Nov 11 j 15:47 14°528'18 -1301 Aug 21 j 10:37 12° ₹20'50 retrograde direct -1306 Jan 10 j 12:32 9°531'04 0°58'39 -1301 Dec 18 j 04:38 0°る opposition -1301 Dec 24 j 01:58 min. Earth dist. -1306 Jan 10 j 14:15 9°930'30 4.36973 AU 1°る23'25 evening set -1306 Mar 12 j 23:42 4°527'40 direct -1300 Jan 05 j 23:15 4°る27'42 0°-34'-12 -1306 Jul 18 j 10:51 22°520'41 conjunction evening set -1300 Jan 05 j 23:13 4°**궁**27'41 0°34'15 minimum elong -1306 Jul 31 j 16:28 25°513'24 0°56'02 -1300 Jan 05 j 21:36 4°る26'43 6.03849 AU conjunction max. Earth dist. -1306 Jul 31 j 16:25 25°513'22 0°56'03 -1300 Jan 18 j 23:04 7°**る**33'28 minimum elong morning rise -1306 Jul 30 j 23:38 25°504'13 6.40109 AU -1300 May 29 j 01:11 27°**궁**38'56 max. Earth dist. retrograde -1306 Aug 13 j 19:06 28°504'34 opposition -1300 Jul 28 j 11:39 22°♂38'50 -1°-19'-39 morning rise -1306 Aug 22 j 17:46 0°**Ω** min. Earth dist. -1300 Jul 28 j 01:00 22°정42'21 4.00328 AU -1306 Dec 07 j 11:42 15°**Ω** direct -1300 Sep 25 j 02:53 17°₹45'33 -1306 Dec 12 j 05:32 15°**Ω**02'09 -1300 Dec 27 j 20:48 retrograde -1306 Dec 16 j 22:54 15°R**Ω** -1299 Jan 27 j 21:18 evening set 7°≈10'15 -1305 Feb 10 j 10:00 10° **Ω**08'17 1°37'35 opposition min. Earth dist. -1305 Feb 11 j 04:49 $10^{\circ}\Omega$ 02'11 4.41791 AU -1299 Feb 10 j 01:40 10°≈19'58 -1°-6'-25 conjunction direct -1305 Apr 13 j 19:50 5°**Ω**05'18 -1299 Feb 10 j 01:38 10°≈19'56 1°06'27 minimum elong -1305 Jul 12 i 01:50 15° Ω max. Earth dist. -1299 Feb 11 i 06:16 10°≈37'09 5.98541 AU evening set -1305 Aug 18 j 23:39 $22^{\circ}\Omega 49'17$ morning rise -1299 Feb 23 i 09:06 13°≈31'22 max. Earth dist. -1305 Aug 30 j 08:37 25° Ω 18'01 6.41694 AU -1299 Mar 01 i 14:31 15°≈ -1299 May 15 j 03:28 0°**∀** -1305 Aug 31 j 21:06 $25^{\circ}\Omega$ 37'58 1°13'59 -1299 Jul 05 i 17:55 4° **\(00'47** conjunction retrograde -1305 Aug 31 j 21:05 $25^{\circ}\Omega$ 37'57 -1299 Aug 26 j 20:51 30°R≈ minimum elong 1°13'59 -1305 Sep 13 j 15:33 $28^{\circ}\Omega 25'13$ -1299 Sep 03 j 16:28 28°≈57'06 -1°-50'-31 morning rise opposition -1305 Sep 20 j 22:53 min. Earth dist. -1299 Sep 02 j 14:29 29°≈05'53 3.98883 AU 0° m -1299 Oct 31 j 16:14 24°≈02'26 retrograde -1304 Jan 12 j 00:25 15° m 21'56 direct opposition -1304 Mar 12 j 14:42 10° m 29'56 1°49'39 -1298 Jan 01 j 17:02 0°**₩** min. Earth dist. -1304 Mar 13 j 20:15 10° **m** 20'28 4.40186 AU evening set -1298 Mar 05 j 23:05 13° **∺** 30'15 -1304 May 14 j 06:58 5° m 28'27 direct -1304 Sep 17 j 21:35 23° m 17'01 -1298 Mar 19 j 11:07 16° X 42'16 -1°-13'-21 evening set conjunction -1304 Sep 28 j 16:19 25° Mp 40'09 -1298 Mar 19 j 11:08 16° ¥42'16 1°13'22 max. Earth dist. 6.36930 AU minimum elong -1298 Mar 21 j 11:17 17° **★** 10'50 max. Earth dist. 6.00968 AU conjunction -1304 Sep 30 j 13:30 26° m 05'15 1°11'28 morning rise -1298 Apr 02 j 02:07 19° **★** 55'41 minimum elong -1304 Sep 30 j 13:31 26° m 05'15 1°11'27 -1298 May 17 j 11:13 $0^{\circ}\Upsilon$ morning rise -1304 Oct 13 j 03:09 28° m 52'32 retrograde -1298 Aug 11 j 04:52 10°**Υ**03'23 -1304 Oct 18 j 05:50 0∘**⊽** min. Earth dist. -1298 Oct 08 j 10:58 5°**Y**09'17 4.04999 AU retrograde -1303 Feb 11 j 23:47 16°**△**14'21 opposition -1298 Oct 09 j 19:33 4°**Υ**58'10 -1°-38'-23 -1303 Apr 13 j 21:04 11°**Ω**22'38 -1298 Dec 06 j 22:58 0°Y00'37 opposition direct

evening set

-1297 Apr 12 j 02:06 19°**Y**10'34

-1303 Apr 15 j 06:39 11°**⊆**11'57 4.32545 AU

min. Earth dist.

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1297 in astronomical counting style is the year 1298 BCE in historical counting style. -1297 Apr 25 i 19:42 22°**Υ**'20'56 0°-52'-36 retrograde -1291 Feb 16 i 09:41 20°**2**36'02 conjunction opposition -1297 Apr 25 j 19:45 22° **Y**20'58 -1291 Apr 18 j 08:21 15° **2**44'10 1°26'26 minimum elong 0°52'35 -1297 Apr 27 j 19:50 22°**Υ**48'47 min. Earth dist. -1291 Apr 19 j 17:44 15°**△**33'32 4.31441 AU max. Earth dist. 6.10187 AU -1291 Jun 19 j 13:41 10°**♀**45'21 -1297 May 09 j 14:50 25°**Y**31'49 direct morning rise -1297 May 29 j 11:14 -1291 Oct 23 j 06:10 28° **£**53'32 ೧∘೪ evening set -1297 Sep 14 j 15:17 14°843'37 -1291 Oct 28 j 03:19 retrograde 0° M -1297 Nov 12 j 00:59 9°**8**48'35 4.16270 AU -1291 Nov 03 j 02:42 6.25532 AU min. Earth dist. max. Earth dist. 1°M21'46 0°-51'-12 opposition -1297 Nov 13 j 03:12 9°**8**39'39 -1291 Nov 04 j 20:32 direct -1296 Jan 11 j 06:07 4°**8**39'05 conjunction 1°M45'40 0°43'48 -1291 Nov 04 j 20:35 1°M45'41 -1296 Apr 08 j 04:15 15°**8** minimum elong 0°43'46 -1291 Nov 17 j 10:13 evening set -1296 May 17 j 02:03 23°**8**19'00 morning rise 4°**™**37'43 -1290 Jan 05 j 12:38 15°M -1296 May 30 j 20:13 26°824'11 0°-14'-8 -1290 Mar 22 j 12:22 22°M54'53 conjunction retrograde -1296 May 30 j 20:14 26°**8**24'12 minimum elong 0°14'08 opposition -1290 May 22 j 11:38 18° ML01'23 0°36'43 behind sun begin -1296 May 30 j 16:27 26°822'04 min. Earth dist. -1290 May 23 j 13:47 17°M53'01 4.19120 AU behind sun end -1296 May 31 j 00:02 26°**8**26'19 -1290 Jun 16 j 22:25 15°RM max. Earth dist. -1296 Jun 01 j 05:17 26°**8**42'46 6.22660 AU direct -1290 Jul 22 j 15:34 13°M05'23 morning rise -1296 Jun 13 j 13:32 29°828'44 -1290 Aug 26 j 22:11 15°M -1296 Jun 15 j 21:44 Π° -1290 Nov 17 j 05:38 0°×7 asc. node -1296 Oct 10 j 07:56 17° **II** 33'43 evening set -1290 Nov 24 j 15:09 1°**х** 42'44 retrograde -1296 Oct 16 j 00:17 17° **II** 36'55 max. Earth dist. -1290 Dec 06 j 06:14 4°**∡**¹26′09 6.12758 AU opposition -1296 Dec 14 j 15:31 12° **II** 36'18 0°10'09 min. Earth dist. -1296 Dec 14 i 02:08 12°**II**40'47 4.28726 AU conjunction -1290 Dec 07 i 08:04 4°**∡**1'18 0°03'32 direct -1295 Feb 13 i 01:07 7°**Д**33'40 minimum elong -1290 Dec 07 i 08:03 4°**х** 41′18 0°03'31 -1290 Dec 07 j 00:06 evening set -1295 Jun 20 j 08:52 25°**Ⅲ**43'42 behind sun begin 4°**х** 36′39 -1290 Dec 07 j 16:01 4°×45'57 behind sun end -1295 Jul 03 j 21:35 28° **II**41'48 0°27'24 -1290 Dec 20 j 02:11 7°**∡**¹40'41 conjunction morning rise -1295 Jul 03 j 21:33 28° **II**41'47 0°27'25 -1289 Jan 07 j 13:13 11° ₹ 55'00 minimum elong desc. node max. Earth dist. -1295 Jul 04 j 03:22 28°**Д**44'58 6.34155 AU -1289 Apr 27 j 16:12 27° ₹ 00'52 retrograde -1289 Jun 27 j 10:28 22° ₹04'13 0°-28'-19 -1295 Jul 09 j 19:56 0°5 opposition -1295 Jul 17 j 08:06 1°538'36 -1289 Jun 27 j 18:17 22° ₹ 01'40 4.06856 AU morning rise min. Earth dist. -1295 Nov 16 j 00:18 18°957'22 -1289 Aug 26 j 03:25 17°**尽** 10'22 direct retrograde -1294 Jan 14 j 21:52 14°500'36 1°05'26 opposition -1289 Dec 01 j 12:52 0°ಕ -1294 Jan 15 j 02:25 13°559'06 4.38401 AU -1289 Dec 28 j 20:38 6°る18'51 min. Earth dist. evening set -1294 Mar 17 j 14:24 8°957'11 direct -1288 Jan 10 j 19:02 9°**ට**24'22 0°-39'-36 -1294 Jul 22 j 22:40 26°5946'28 evening set conjunction 9°**ප්**24'20 0°39'37 -1294 Aug 04 j 08:27 29°528'03 6.41222 AU -1288 Jan 10 j 19:00 max. Earth dist. minimum elong max. Earth dist. -1288 Jan 10 j 22:06 9°**ප**26'11 6.02146 AU conjunction -1294 Aug 05 j 03:08 29°\$38'13 0°59'37 morning rise -1288 Jan 23 j 19:50 12°₹31'21 -1294 Aug 05 j 03:05 29°538'12 0°59'38 -1288 Apr 21 j 20:43 0°**≈** minimum elong -1294 Aug 06 j 19:09 0°**Ω** retrograde -1288 Jun 03 j 08:10 2°≈45'09 -1294 Aug 18 j 04:18 2°**Ω**28'23 -1288 Jul 15 j 23:18 30°R 궁 morning rise -1294 Oct 22 j 17:05 15°**Ω** -1288 Aug 02 j 15:15 27°ਰੋ44'33 -1°-26'-5 opposition -1294 Dec 16 j 09:44 19° **Ω**22'25 min. Earth dist. -1288 Aug 02 j 03:08 27°**정**48'35 3.99010 AU retrograde -1293 Feb 10 j 16:51 15°RΩ direct -1288 Sep 30 j 03:03 22°₹51'15 -1293 Feb 14 i 17:23 $14^{\circ}\Omega$ 28'50 $1^{\circ}40'52$ -1288 Dec 07 i 19:03 0°≈ opposition -1293 Feb 15 j 13:00 $14^{\circ}\Omega$ 22'29 min. Earth dist. 4.42540 AU evening set -1287 Feb 01 i 23:50 12°≈20'26 -1287 Feb 13 j 01:41 15°≈ direct -1293 Apr 18 i 05:01 9°**Ω**25'59 -1293 Jun 21 i 17:58 $15^{\circ}\Omega$ -1293 Aug 23 j 06:49 27° **Ω**07'46 -1287 Feb 15 i 05:20 15°≈31'04 -1°-9'00 evening set conjunction max. Earth dist. -1293 Sep 03 j 12:46 $29^{\circ}\Omega$ 34'52 -1287 Feb 15 i 05:18 15°≈31'02 1°09'02 6.42006 AU minimum elong max. Earth dist. -1287 Feb 16 j 13:12 15°≈50'13 5.97723 AU -1293 Sep 05 j 03:07 29° Ω 55'51 1°14'49 morning rise -1287 Feb 28 j 14:10 18°≈43'26 conjunction -1287 Apr 20 j 06:05 minimum elong -1293 Sep 05 j 03:06 29° Ω 55'50 1°14'49 0°**∀** -1287 Jul 10 j 23:59 -1293 Sep 05 j 10:43 0° m retrograde 9°**升**15'24 morning rise -1293 Sep 17 j 20:34 2° m 42'35 opposition -1287 Sep 08 j 20:38 4°**升**11'23 -1°-51'-21 retrograde -1292 Jan 16 j 07:08 19° mp 39'15 min. Earth dist. -1287 Sep 07 j 15:54 4°**₭**21'07 3.98689 AU -1292 Mar 16 j 22:45 14° Mp 47'25 1°48'48 -1287 Oct 16 j 05:08 30°R≈ opposition -1292 Mar 18 j 06:25 14° **m** 37'18 4.40026 AU -1287 Nov 05 j 18:01 29°≈16'26 min. Earth dist. direct -1292 May 18 j 16:32 9° Mp 46'10 -1287 Nov 26 j 08:55 direct 0°**₩** -1286 Mar 11 j 06:09 18° ¥45'14 evening set -1292 Sep 22 j 02:21 27° m/34'35 evening set max. Earth dist. -1292 Oct 02 j 18:24 29° m 56'31 6.36289 AU -1292 Oct 03 j 00:39 0∘**⊽** conjunction -1286 Mar 24 j 19:15 21° **★** 57'34 -1°-11'-53 minimum elong -1286 Mar 24 j 19:17 21° **★** 57'35 1°11'54 conjunction -1292 Oct 04 j 17:43 0°**£**22'50 1°09'24 max. Earth dist. -1286 Mar 26 j 20:39 22° **★**26'50 6.01405 AU -1292 Oct 04 j 17:45 0°**£**22'51 1°09'25 -1286 Apr 07 j 11:14 25°**光** 11'12 minimum elong morning rise -1292 Oct 17 j 07:08 3°**₽**10'17 -1286 Apr 28 j 08:41 morning rise

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1286 in astronomical counting style is the year 1287 BCE in historical counting style. -1286 Aug 16 j 06:18 15°**Υ**14'22 direct -1280 May 23 j 02:51 14° m 13'14 retrograde -1286 Oct 13 j 11:36 10°**Υ**20'10 4.05990 AU -1280 Sep 17 j 01:40 min. Earth dist. 0∘⊽ opposition $-1286 \text{ Oct } 14 \text{ j } 20:05 \quad 10^{\circ} \Upsilon 09'04 \quad -1^{\circ} -33' -17$ -1280 Sep 26 j 11:10 2°**£**03'41 evening set -1280 Oct 07 j 02:59 -1286 Dec 12 j 02:04 5°**Y**11′02 4°**₽**25'56 direct max. Earth dist. 6.35001 AU -1285 Apr 17 j 08:04 24°**Y**18'15 evening set -1280 Oct 09 j 02:07 conjunction 4°**£**52'16 1°06'55 -1285 May 01 j 02:19 27°**Y**28'14 0°-47'-46 minimum elong -1280 Oct 09 j 02:09 conjunction 4°**£**52'17 1°06'54 -1285 May 01 j 02:22 27°**Y**28'16 -1280 Oct 21 j 15:17 minimum elong 0°47'46 morning rise 7°₽40'08 -1285 May 03 j 03:31 27°**Υ**56'35 max. Earth dist. 6.11653 AU retrograde -1279 Feb 21 j 03:01 25° **2**12'01 -1285 May 12 j 02:13 0° 8 opposition -1279 Apr 23 j 01:28 20°**₽**20'03 1°20'51 morning rise -1285 May 14 j 21:30 0°**8**38'30 min. Earth dist. -1279 Apr 24 j 11:34 20°**₽**09'12 4.29780 AU -1285 Jul 25 j 09:58 -1279 Jun 24 j 05:02 15°8 direct 15°**£**21'36 -1285 Sep 19 j 09:37 19°841'25 -1279 Oct 11 j 20:07 retrograde 0°M -1285 Nov 15 j 04:17 15°R& evening set -1279 Oct 27 j 18:08 3°M33'47 opposition max. Earth dist. -1279 Nov 07 j 15:03 6°M02'54 6.23642 AU min. Earth dist. -1285 Nov 16 j 20:09 14°**8**46'29 4.18015 AU direct -1284 Jan 16 j 04:15 9°**8**36'50 conjunction -1279 Nov 09 j 08:40 6°M26'45 0°38'44 -1284 Mar 16 j 23:39 15°8 minimum elong -1279 Nov 09 j 08:42 6°M26'46 0°38'44 evening set -1284 May 22 j 02:47 28°812'00 morning rise -1279 Nov 21 j 22:53 9°M19'48 -1284 May 30 j 04:16 -1279 Dec 17 j 11:17 15°M₊ retrograde -1278 Mar 27 j 12:01 27° ML45'56 conjunction -1284 Jun 04 j 20:18 1°**I**16'09 0°-8'-1 opposition -1278 May 27 j 11:26 22°M 52'03 0°27'57 minimum elong -1284 Jun 04 i 20:19 1°**I**I16'10 0°08'00 min. Earth dist. -1278 May 28 i 10:48 22° ML44'34 4.17134 AU -1278 Jul 27 j 09:44 17°**M** 56'23 behind sun begin -1284 Jun 04 i 12:55 1°**Ⅱ**12'02 direct behind sun end -1284 Jun 05 j 03:43 1°**Ⅱ**20′17 -1278 Oct 30 i 22:53 0°**∡**¹ max. Earth dist. -1284 Jun 06 j 01:12 1°**Ⅱ**32'19 -1278 Nov 16 j 10:44 3°×39'31 6.24508 AU desc node -1284 Jun 18 j 13:04 4°**Ⅱ**19'37 -1278 Nov 29 j 09:05 morning rise evening set 6° x738'54 -1284 Aug 18 j 18:20 16°**Д**35'55 max. Earth dist. -1278 Dec 11 j 05:33 9°**х**⁴26′03 asc. node 6.10872 AU -1284 Oct 20 j 12:13 22° II 19'07 retrograde -1284 Dec 19 j 04:34 17°**Ⅲ**18'56 0°18'52 -1278 Dec 12 j 02:46 9°**х** 38'34 0°-2'-54 opposition conjunction -1284 Dec 18 j 17:49 17°**Д**22'32 4.30478 AU -1278 Dec 12 j 02:45 min. Earth dist. minimum elong 9°**∡**³38'33 0°02'57 -1283 Feb 17 j 19:49 12°**Ⅲ**16'03 -1278 Dec 11 j 18:44 behind sun begin 9°**х** 33′51 direct -1283 Jun 23 j 10:43 behind sun end -1278 Dec 12 j 10:45 9°**∡**¹43'14 0ಂಲ -1283 Jun 25 j 02:48 0°9521'46 -1278 Dec 24 j 21:36 12° ₹39'07 evening set morning rise -1277 Mar 26 j 11:55 0°궁 -1283 Jul 08 j 14:34 3°5518'48 0°32'48 -1277 May 03 j 01:06 conjunction retrograde 2°る08'40 -1283 Jul 08 j 14:31 -1277 Jun 09 j 17:13 30°R ✓ minimum elong 3°9518'47 0°32'49 max. Earth dist. -1283 Jul 08 j 18:05 3°520'44 6.35659 AU opposition -1277 Jul 02 j 16:38 27° **₹** 11'31 0°-37'-40 morning rise -1283 Jul 21 j 23:36 6°9514'24 min. Earth dist. -1277 Jul 02 j 22:24 27°**尽**09'39 4.05249 AU retrograde -1283 Nov 20 j 07:20 23°527'23 direct -1277 Aug 31 j 05:29 22°**尽** 17'55 opposition -1282 Jan 19 j 07:17 18°531'08 1°11'55 -1277 Nov 11 j 15:01 min. Earth dist. -1282 Jan 19 j 13:28 18°529'07 -1276 Jan 02 j 22:05 11°**⋜**30'43 evening set -1282 Mar 22 j 03:09 13°527'44 direct -1282 Jul 21 j 16:25 -1276 Jan 15 j 21:20 14°♂37'09 0°-45'-2 0° Ω conjunction -1282 Jul 27 j 11:08 -1276 Jan 15 j 21:17 14° ₹37'07 0°45'03 evening set 1°Ω14'29 minimum elong -1276 Jan 16 j 04:19 14°**⋜**41'20 max. Earth dist. 6.00979 AU 4°Ω05'25 1°02'56 -1276 Jan 28 j 23:20 17°る45'09 conjunction -1282 Aug 09 j 14:09 morning rise minimum elong -1282 Aug 09 j 14:07 4°Ω05'24 1°02'57 -1276 Mar 24 i 19:27 0°≈ 3°**Ω**52'42 max. Earth dist. -1282 Aug 08 j 14:47 6.41898 AU retrograde -1276 Jun 08 i 17:25 8°≈04'21 -1282 Aug 22 j 14:13 6°Ω54'49 opposition -1276 Aug 07 j 23:40 3°≈03'13 -1°-32'-10 morning rise -1282 Sep 30 j 23:33 15°**Ω** min. Earth dist. -1276 Aug 07 j 07:35 3°≈08'34 3.98471 AU -1282 Dec 20 j 18:22 23° Ω 47'04 -1276 Sep 01 j 19:30 30°R 궁 retrograde -1281 Feb 19 j 02:38 18° **Ω**53'50 1°43'45 -1276 Oct 05 j 07:18 28°**⋜**09'50 opposition direct min. Earth dist. -1281 Feb 20 j 01:21 $18^{\circ}\Omega 46'30$ 4.42716 AU -1276 Nov 07 j 13:41 0°≈ -1275 Jan 27 j 00:18 15°**≈** -1281 Mar 25 j 20:27 15°RΩ direct -1281 Apr 22 j 17:25 13°Ω51'05 evening set -1275 Feb 07 j 06:53 17°≈40'15 -1281 May 20 j 18:20 $15^{\circ}\Omega$ -1281 Aug 20 j 12:11 -1275 Feb 20 j 13:25 20°≈51'17 -1°-11'-11 0° m conjunction -1281 Aug 27 j 15:40 -1275 Feb 20 j 13:24 20°≈51'16 evening set 1° mp 32'33 minimum elong 1°11'13 -1281 Sep 07 j 19:00 3° M 58'24 6.41651 AU -1275 Feb 22 j 00:53 21°≈12'35 max. Earth dist. max. Earth dist. 5.97853 AU morning rise -1275 Mar 05 j 23:17 24°≈04'01 conjunction -1281 Sep 09 j 11:11 4° m/20'24 1°15'19 -1275 Mar 31 j 12:09 0°**∀** minimum elong -1281 Sep 09 j 11:11 4° Mp 20'24 1°15'19 retrograde -1275 Jul 16 j 06:31 14° **★** 34'03 morning rise -1281 Sep 22 j 03:45 7° Mp 06'57 min. Earth dist. -1275 Sep 12 j 20:15 9°**¥**39'47 3.99487 AU retrograde -1280 Jan 20 j 16:35 24° Mp 05'59 opposition -1275 Sep 14 j 02:13 9°**∺**29'37 -1°-51'-20 -1280 Mar 21 j 10:34 19° m 14'12 1°47'27 -1275 Nov 11 j 00:30 4°)(34'14 opposition direct

evening set

-1274 Mar 16 j 13:38 24° **₭** 00'08

min. Earth dist.

-1280 Mar 22 j 18:25 19° **m** 04'03 4.39172 AU

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1274 in astronomical counting style is the year 1275 BCE in historical counting style. retrograde -1268 Jan 25 i 05:34 28° m 33'10 conjunction opposition -1274 Mar 30 j 03:47 27° **H** 12'16 1°09'55 -1268 Mar 25 j 23:01 23° mp 41'32 1°45'29 minimum elong max. Earth dist. -1274 Apr 01 j 07:56 27° \(\dagger 43'02 \) 6.02790 AU min. Earth dist. -1268 Mar 27 j 08:42 23° m 30'48 4.37837 AU -1274 Apr 11 j 00:46 $0^{\circ}\Upsilon$ -1268 May 27 j 15:02 18° m 40'54 direct -1274 Apr 12 j 20:19 0°Y25'30 -1268 Aug 31 j 02:03 morning rise 0∘ଫ 6°**₽**34'56 -1274 Aug 21 j 05:36 20°**Y**20'11 -1268 Sep 30 j 20:37 retrograde evening set -1274 Oct 18 j 10:33 15° **Y**25'58 4.07799 AU -1268 Oct 11 j 12:29 8°**£**57'47 min. Earth dist. max. Earth dist. 6.33313 AU -1274 Oct 19 j 18:50 15° Υ 14'57 opposition -1°-27'-34 9°**₽**24′07 direct -1274 Dec 17 j 03:13 10° **Y** 16'30 conjunction -1268 Oct 13 j 11:27 1°04'00 29°**Υ**18'12 -1268 Oct 13 j 11:29 evening set -1273 Apr 22 j 11:23 minimum elong 9°**≏**24'08 1°03'59 -1273 Apr 25 j 12:36 0°8 morning rise -1268 Oct 26 j 00:32 12°**£**12'40 -1267 Feb 25 j 21:03 29°**♀**52'10 retrograde -1273 May 06 j 05:39 2°**8**27'19 0°-42'-44 -1267 Apr 27 j 20:27 25°**♀**00'03 conjunction opposition 1°14'42 minimum elong -1273 May 06 j 05:42 2°**8**27'21 0°42'44 min. Earth dist. -1267 Apr 29 j 04:34 24°**♀**49'49 4.27859 AU max. Earth dist. -1273 May 08 j 03:35 2°**8**53'39 6.13705 AU direct -1267 Jun 28 j 19:06 20° **2**02'04 5°**8**36'38 morning rise -1273 May 20 j 00:56 -1267 Sep 23 j 22:34 -1273 Jul 02 j 17:57 15°8 evening set -1267 Nov 01 j 07:51 8° M 19'02retrograde -1273 Sep 23 j 23:13 24°**8**29'10 max. Earth dist. -1267 Nov 12 j 08:09 10°M50'46 6.21663 AU opposition -1273 Nov 22 j 12:48 19°**8**25'54 0°-34'-8 min. Earth dist. -1273 Nov 21 j 12:57 19°**8**33'59 4.20096 AU conjunction -1267 Nov 13 j 22:38 11°ML12'57 0°33'21 -1272 Jan 02 j 01:54 15°R8 minimum elong -1267 Nov 13 j 22:40 11° ML12'58 direct -1272 Jan 21 i 00:16 14°**8**24'34 morning rise -1267 Nov 26 j 13:18 14°ML07'02 -1272 Feb 09 i 03:28 15°8 -1267 Nov 30 i 10:02 15°M -1272 May 13 j 17:27 $0^{\circ}\Pi$ -1266 Feb 18 i 01:50 0°**∡**¹ -1272 May 26 j 23:21 2°**∏**54'21 -1266 Apr 01 j 16:16 2°**х** 42'34 evening set retrograde -1266 May 14 j 19:32 30°RM -1272 Jun 09 j 16:25 5°II57'25 0°-2'-3 -1266 Jun 01 j 13:41 27° ML48'20 0°18'51 conjunction opposition -1272 Jun 09 j 16:26 5°**Ⅱ**57'26 0°02'03 min. Earth dist. -1266 Jun 02 j 11:26 27°M41'21 minimum elong 4.15236 AU -1272 Jun 09 j 08:06 5°**Ⅱ**52'48 -1266 Aug 01 j 07:54 22°M53'04 behind sun begin direct -1272 Jun 10 j 00:45 6°**Ⅱ**02'03 -1266 Sep 24 j 22:18 27°ML19'52 behind sun end desc. node -1272 Jun 10 j 18:26 6°**Ⅱ**11'55 -1266 Oct 10 j 19:59 0° ₹ max. Earth dist. 6.26463 AU 8°**Ⅱ**59'39 -1272 Jun 23 j 08:08 -1266 Dec 04 j 05:05 11°**₹**40'13 morning rise evening set -1272 Jun 28 j 14:38 10°**耳**09'18 asc. node -1272 Oct 24 j 20:53 26° **1**50'46 -1266 Dec 16 j 23:23 14° ₹ 40'52 0°-9'-17 retrograde conjunction -1272 Dec 23 j 13:50 21°**Д**51'13 0°27'09 -1266 Dec 16 j 23:22 14° **₹** 40'51 0°09'19 opposition minimum elong -1272 Dec 23 j 05:40 21°**Д**53'56 4.32143 AU -1266 Dec 16 j 16:34 14° ₹36'51 min. Earth dist. behind sun begin -1271 Feb 22 j 09:42 16°**Ⅲ**48'12 -1266 Dec 17 j 06:10 14° ₹ 44'52 direct behind sun end -1271 Jun 06 j 22:32 0ಂತಾ max. Earth dist. -1266 Dec 16 j 05:47 14° ₹30'28 6.09235 AU evening set -1271 Jun 29 j 17:01 4°950'18 morning rise -1266 Dec 29 j 19:11 17°**₹**42'32 -1265 Feb 24 j 23:47 0°る conjunction -1271 Jul 13 j 03:31 7°546'21 0°37'51 retrograde -1265 May 08 j 07:47 7°る20'08 -1271 Jul 13 j 03:28 7°546'19 0°37'52 -1265 Jul 07 j 23:33 2°**ප**22'25 0°-46'-47 minimum elong opposition max. Earth dist. -1271 Jul 13 j 01:17 7°9545'07 min. Earth dist. -1265 Jul 08 j 01:06 2°る21'55 4.04047 AU 6.36888 AU -1271 Jul 26 j 11:29 10°540'59 -1265 Jul 26 j 22:53 30°R **✗** morning rise -1271 Nov 24 j 13:46 27°5549'40 -1265 Sep 05 j 06:52 27° ₹29'00 retrograde direct -1270 Jan 23 j 14:21 22°\$53'56 1°17'50 -1265 Oct 14 j 22:43 0°る opposition -1264 Jan 08 j 00:21 16°₹44'38 -1270 Jan 23 j 23:48 22°\$50'50 4.40286 AU min. Earth dist. evening set direct -1270 Mar 26 j 13:50 17°550'30 -1264 Jan 21 i 00:29 19° ₹51'44 0°-50'-7 -1270 Jul 05 j 03:28 $0^{\circ}\Omega$ conjunction -1270 Jul 31 j 20:42 5°**Ω**36'12 minimum elong -1264 Jan 21 i 00:26 19°₹51'43 0°50'09 evening set max. Earth dist. -1264 Jan 21 j 12:06 19°る58'43 6.00298 AU -1270 Aug 13 j 22:45 8°Ω26'37 1°05'49 morning rise -1264 Feb 03 j 03:29 23°る00'29 conjunction 8°**Ω**26'36 1°05'50 -1270 Aug 13 j 22:43 -1264 Mar 04 j 10:10 minimum elong 6.42083 AU max. Earth dist. -1270 Aug 12 j 21:18 8°**Ω**12'46 retrograde -1264 Jun 14 j 02:35 13°≈22'56 -1270 Aug 26 j 21:28 $11^{\circ}\Omega$ 15'27 morning rise opposition -1264 Aug 13 j 07:15 8°≈21'13 -1°-37'-26 -1270 Sep 13 j 11:23 15°**Ω** min. Earth dist. -1264 Aug 12 j 12:56 8°≈27'20 3.98386 AU 3°**≈**27'38 retrograde -1270 Dec 25 j 00:32 $28^{\circ}\Omega07'49$ direct -1264 Oct 10 j 13:45 -1269 Feb 23 j 10:41 23° Ω 14'57 1°46'03 -1263 Jan 08 j 20:31 15°≈ opposition -1269 Feb 24 j 10:42 23° Ω 07'13 4.42365 AU -1263 Feb 12 j 12:43 22°≈57'40 min. Earth dist. evening set direct -1269 Apr 27 j 01:37 18°Ω12'27 -1263 Feb 25 j 20:24 26°≈08'56 -1°-12'-47 -1269 Aug 03 j 21:11 0°m conjunction evening set -1269 Aug 31 j 23:53 5° m 55'25 minimum elong -1263 Feb 25 j 20:23 26°≈08'56 1°12'48 max. Earth dist. -1269 Sep 11 j 23:33 8° Mp 19'42 6.40776 AU max. Earth dist. -1263 Feb 27 j 12:25 26°≈32'55 5.98351 AU morning rise -1263 Mar 11 j 07:13 29°≈21'51 conjunction -1269 Sep 13 j 18:27 8° mp 43'15 1°15'23 -1263 Mar 13 j 23:31 0°**)**€ -1269 Sep 13 j 18:27 8° Mp 43'15 1°15'24 retrograde -1263 Jul 21 j 11:04 19°**)** 48'20 minimum elong -1269 Sep 26 j 10:27 11° m 29'55 min. Earth dist. -1263 Sep 17 j 22:42 14° **¥** 54'07 4.00529 AU morning rise

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1263 in astronomical counting style is the year 1264 BCE in historical counting style. -1263 Sep 19 j 05:32 14°**)** (43'39 -1°-50'-25 direct -1257 May 01 j 12:11 $22^{\circ}\Omega 36'31$ opposition 9°**)**47'55 direct -1263 Nov 16 j 03:49 -1257 Jul 15 j 22:01 0° m -1262 Mar 21 j 19:17 29° **H** 10'23 -1257 Sep 05 j 08:43 10° m 20'56 evening set evening set -1262 Mar 25 j 08:03 $0^{\circ}\Upsilon$ -1257 Sep 16 j 07:56 12° mp 45'18 max. Earth dist. 6.39885 AU -1262 Apr 04 j 10:02 2°Υ22'08 -1°-7'-25 -1257 Sep 18 j 02:44 13° mp 08'52 conjunction conjunction 1°15'02 2°**Y**22'10 -1257 Sep 18 j 02:45 13° Mp 08'52 minimum elong -1262 Apr 04 j 10:04 1°07'25 minimum elong 1°15'03 -1262 Apr 06 j 13:04 2°**Y**52′07 -1257 Sep 30 j 17:58 15° **m** 55'35 max. Earth dist. 6.04257 AU morning rise -1257 Dec 15 j 10:04 morning rise -1262 Apr 18 j 03:24 5°**Y**35′00 0∘**⊽** retrograde -1262 Aug 26 j 00:53 25°**Y**21'11 retrograde -1256 Jan 29 j 17:47 3°**ჲ**03'05 min. Earth dist. -1262 Oct 23 j 07:05 20°**Y**26'58 4.09531 AU -1256 Mar 15 j 23:26 30°₽,₩ -1262 Oct 24 j 14:59 20°**Y**16′04 opposition -1°-21'-21 opposition -1256 Mar 30 j 12:58 28° **m** 11'30 1°42'54 -1262 Dec 22 j 02:45 15° \begin{pmatrix} \gamma 17'08 \end{pmatrix} direct min. Earth dist. -1256 Mar 31 j 22:03 28° m 00'58 4.36593 AU -1261 Apr 08 j 14:25 0°8 direct -1256 Jun 01 j 02:21 23° Mp 11'17 evening set -1261 Apr 27 j 12:46 4°814'02 -1256 Aug 11 j 12:04 0∘<u>ଫ</u> evening set -1256 Oct 05 j 06:56 11°**≏**08'13 conjunction -1261 May 11 j 07:19 7°**8**22'25 0°-37'-29 max. Earth dist. -1256 Oct 15 j 22:45 13°**2**31'38 6.31829 AU minimum elong -1261 May 11 j 07:22 7°**8**22'26 0°37'29 max. Earth dist. -1261 May 13 j 03:24 7°**と**47'35 6.15583 AU conjunction -1256 Oct 17 j 21:23 13°**2**57'53 1°00'42 morning rise -1261 May 25 j 02:19 10°\(230'48\) minimum elong -1256 Oct 17 j 21:25 13° **2**57'54 1°00'41 -1261 Jun 14 j 07:07 15°8 morning rise -1256 Oct 30 j 10:33 16° **2**47'03 retrograde -1261 Sep 28 i 13:47 29°**8**13'57 -1255 Jan 05 j 12:50 0°M min. Earth dist. -1261 Nov 26 i 05:14 24°8 18'21 4.21923 AU retrograde -1255 Mar 02 i 17:52 4°M33'28 opposition -1261 Nov 27 j 02:30 24°**8**11'09 0°-25'-31 -1255 Apr 30 i 05:13 30°R Ω direct -1260 Jan 25 j 18:54 19°**8**09'31 opposition -1255 May 02 j 16:25 29° **△**41'09 1°08'02 -1260 Apr 26 j 01:35 min. Earth dist. -1255 May 03 j 23:54 29°**2**31'07 0°Π 4 26227 AU -1260 May 08 j 11:16 direct -1255 Jul 03 j 12:27 24°**£**43'35 asc node 2°∏32'29 -1260 May 31 j 18:50 -1255 Sep 02 j 11:51 evening set 7°**Ⅲ**34'50 o∘m. -1255 Nov 05 j 21:41 13°M04'07 evening set -1260 Jun 14 j 11:13 10°**Д**36'57 0°03'59 -1255 Nov 14 j 07:01 15°M conjunction -1260 Jun 14 j 11:12 10°**Д**36'57 -1255 Nov 17 j 01:15 15°ML38'16 6.20048 AU 0°04'00 minimum elong max. Earth dist. -1260 Jun 14 j 03:00 10°**II**32'25 behind sun begin -1260 Jun 14 j 19:24 10°**Ⅱ**41'29 -1255 Nov 18 j 12:50 15°ML58'50 0°27'47 behind sun end conjunction -1255 Nov 18 j 12:52 15°M58'51 -1260 Jun 15 j 08:44 10°**II**48'54 max. Earth dist. 6.28099 AU minimum elong 0°27'46 -1255 Dec 01 j 03:59 18°M 53'50 -1260 Jun 28 j 02:11 13°**Ⅲ**38'08 morning rise morning rise -1260 Sep 29 j 19:10 0°5 -1254 Jan 22 j 11:09 0°**⊼** -1260 Oct 29 j 04:50 1°522'14 -1254 Apr 06 j 17:01 retrograde retrograde 7°**∡**37'15 -1260 Nov 27 j 10:50 30°RⅡ -1254 Jun 06 j 15:08 2°**∡¹**42'35 0°09'40 opposition opposition -1260 Dec 27 j 23:06 26°**Ц**23'11 0°35'14 min. Earth dist. -1254 Jun 07 j 09:20 2°**⋌**36'44 4.13771 AU min. Earth dist. -1260 Dec 27 j 17:13 26°**Д**25'09 4.33477 AU -1254 Jun 28 j 22:46 30°RM direct -1259 Feb 26 j 22:31 21°**Ⅱ**19'59 desc. node -1254 Aug 04 j 11:17 27° ML48'00 -1259 May 19 j 13:56 -1254 Aug 06 j 03:52 27°M47'43 direct -1259 Jul 04 j 07:03 9°519'24 -1254 Sep 12 j 20:36 evening set -1254 Dec 09 j 00:04 16° ₹37'59 evening set -1259 Jul 17 j 16:31 12°5514'37 0°42'41 conjunction -1259 Jul 17 j 16:29 12°5014'35 0°42'42 -1254 Dec 21 i 18:55 19° **x** 39'24 0°-15'-29 minimum elong conjunction max. Earth dist. -1259 Jul 17 i 11:12 12°5511'42 6.37827 AU minimum elong -1254 Dec 21 i 18:54 19° ₹39'23 0°15'31 -1259 Jul 30 j 23:07 15°508'19 morning rise behind sun begin -1254 Dec 21 j 16:26 19° ₹ 37'56 -1259 Oct 21 i 18:10 $0^{\circ}\Omega$ behind sun end -1254 Dec 21 j 21:22 19° ₹40'51 2°**Ω**13'37 -1259 Nov 28 j 20:54 max. Earth dist. -1254 Dec 21 j 05:17 19° ₹31'20 6.08047 AU retrograde -1258 Jan 06 j 01:03 30°R 55 morning rise -1253 Jan 03 j 15:35 22° ₹ 41'57 -1258 Jan 27 j 22:10 27°5018'23 1°23'21 -1253 Feb 04 j 18:39 0°る opposition -1258 Jan 28 j 10:01 27°5514'31 4.40786 AU retrograde -1253 May 13 j 13:47 12°₹25'58 min. Earth dist. -1253 Jul 13 j 04:29 direct -1258 Mar 31 j 00:24 22°515'02 opposition 7°る27'40 0°-55'-20 -1258 Jun 16 j 10:01 0 $^{\circ}\Omega$ min. Earth dist. -1253 Jul 13 j 03:21 7°る28'02 4.03242 AU evening set -1258 Aug 05 j 07:08 10°**Ω**00'08 direct -1253 Sep 10 j 08:58 2°중34'20 max. Earth dist. -1258 Aug 17 j 02:10 12°**Ω**33'51 6.42087 AU evening set -1252 Jan 13 j 00:18 21°**궁**51'28 -1258 Aug 18 j 07:57 12° Ω 50'04 1°08'22 -1252 Jan 26 j 01:24 24°궁59'08 0°-54'-40 conjunction conjunction -1258 Aug 18 j 07:54 12° Ω 50'03 1°08'22 -1252 Jan 26 j 01:21 24°**궁**59'07 minimum elong minimum elong 0°54'42 -1258 Aug 28 j 06:43 15°**Ω** -1252 Jan 26 j 17:59 25°중09'06 5.99943 AU max. Earth dist. morning rise -1258 Aug 31 j 05:44 15° **Ω**38'30 morning rise -1252 Feb 08 j 05:19 28°중08'26 -1258 Nov 18 j 12:15 0°m -1252 Feb 16 j 01:35 0°≈ retrograde -1258 Dec 29 j 09:55 2°M/31'28 -1252 May 01 j 21:35 15°**≈** -1257 Feb 08 j 16:44 30°R**Ω** retrograde -1252 Jun 19 j 08:28 18°≈32'40 -1257 Feb 27 j 20:20 27° **Q**38'51 1°47'48 -1252 Aug 07 j 03:36 15°R≈ opposition -1257 Feb 28 j 22:28 27° Ω 30'26 4.41903 AU -1252 Aug 18 j 11:15 13°≈30'29 -1°-41'-44 min. Earth dist. opposition

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1252 in astronomical counting style is the year 1253 BCE in historical counting style. min. Earth dist. -1252 Aug 17 j 15:00 13°≈37'16 3.98553 AU min. Earth dist. -1246 Feb 01 i 19:38 1°Ω38'56 4.41113 AU -1252 Oct 15 j 15:24 -1246 Feb 14 j 18:09 30°R 55 direct 8°≈36'45 -1246 Apr 04 j 09:59 26°5540'02 -1252 Dec 19 i 02:12 15°≈ direct -1251 Feb 17 j 15:46 28°≈05'52 -1246 May 23 j 05:02 $0^{\circ}\Omega$ evening set -1246 Aug 09 j 17:09 -1251 Feb 25 j 15:06 0°**∀** evening set 14°**£**24′53 -1246 Aug 12 j 10:03 15°**Ω** conjunction -1251 Mar 03 j 00:16 1°**升**17'15 -1°-13'-45 max. Earth dist. -1246 Aug 21 j 10:14 16° **Ω**57'38 6.42038 AU -1251 Mar 03 j 00:16 minimum elong 1°**升**17'14 1°13'47 max. Earth dist. -1251 Mar 04 j 17:02 1°**)** 41′37 5.98981 AU conjunction -1246 Aug 22 j 16:56 17°Ω14'23 1°10'30 4°**)** 30′18 morning rise -1251 Mar 16 j 12:12 minimum elong -1246 Aug 22 j 16:54 17° **Ω**14'22 1°10'31 -1246 Sep 04 j 13:32 20°**Ω**02'22 retrograde -1251 Jul 26 j 09:56 24° ¥ 52'46 morning rise -1246 Oct 24 j 03:17 min. Earth dist. -1251 Sep 22 j 20:56 19° ¥ 58'42 4.01565 AU 0° M -1245 Jan 02 j 18:34 opposition -1251 Sep 24 j 04:42 19° **★** 47'53 -1°-48'-41 retrograde 6° Mp 56'03 direct -1251 Nov 21 j 03:27 14°**)** 51'44 opposition -1245 Mar 04 j 06:09 2°m/03'41 1°48'53 -1250 Mar 08 j 15:54 $0^{\circ}\Upsilon$ min. Earth dist. -1245 Mar 05 j 09:25 1° M 54'56 4.41493 AU evening set -1250 Mar 26 j 21:28 4°Υ11'15 -1245 Mar 20 j 19:30 30°RΩ direct -1245 May 05 j 22:34 27°**Ω**01'38 conjunction -1250 Apr 09 j 13:08 7°**Y**22'47 -1°-4'-31 -1245 Jun 20 j 22:15 0°m minimum elong -1250 Apr 09 j 13:11 7°**Y**22'49 1°04'32 evening set -1245 Sep 09 j 17:24 14° mp 46'57 max. Earth dist. -1250 Apr 11 j 16:25 7°**Υ**52'48 6.05610 AU max. Earth dist. -1245 Sep 20 j 13:36 17° mp 10'03 6.39118 AU morning rise -1250 Apr 23 j 06:54 10°**Y**35'14 -1250 Aug 19 j 01:03 0°8 conjunction -1245 Sep 22 j 10:33 17° mp 34'52 1°14'15 retrograde -1250 Aug 30 j 20:02 0°813'47 minimum elong -1245 Sep 22 i 10:34 17° m 34'52 1°14'14 -1250 Sep 11 i 12:02 30°R°Y morning rise -1245 Oct 05 j 01:22 20° m 21'41 min. Earth dist. -1250 Oct 28 j 02:20 25° Υ 19'06 4.11041 AU -1245 Nov 21 j 03:11 0∘**⊽** opposition -1250 Oct 29 j 08:11 25° Υ 08'56 -1°-14'-47 retrograde -1244 Feb 03 j 07:22 7°**£**32'53 -1250 Dec 26 j 23:50 20° Υ 09'37 opposition -1244 Apr 04 j 02:34 direct 2°**Ω**41'14 1°39'41 min. Earth dist. -1244 Apr 05 j 12:09 -1249 Mar 21 j 11:17 0°8 2°**♀**30'32 4.35498 AU -1249 May 02 j 11:24 9°802'47 -1244 Apr 26 j 09:56 30°R M evening set -1244 Jun 05 j 14:51 27° mp 41'16 direct -1249 May 16 j 06:01 12°810'33 0°-32'-9 -1244 Jul 15 j 14:14 conjunction 0∘**⊽** -1249 May 16 j 06:03 12°**8**10'34 0°32'08 -1244 Oct 09 j 16:11 15°**£**40'26 minimum elong evening set -1249 May 17 j 23:19 12°**8**34'03 6.17132 AU -1244 Oct 20 j 09:49 18°**♀**05'16 max. Earth dist. max. Earth dist. 6.30484 AU -1249 May 28 j 16:40 15°**8** -1249 May 30 j 00:54 15°**8**18'12 -1244 Oct 22 j 06:40 18°**♀**30'35 0°57'02 morning rise conjunction -1249 Aug 13 j 08:09 0°**Ⅱ** -1244 Oct 22 j 06:42 18°**♀**30'36 minimum elong 0°57'02 -1249 Oct 03 j 00:27 -1244 Nov 03 j 19:42 21°**£**20'18 retrograde 3°**Ⅱ**53'31 morning rise -1249 Nov 23 j 00:51 30°R**8** -1244 Dec 14 j 13:03 0°M opposition -1249 Dec 01 j 14:06 28°\(\delta 51'14 \) 0°-16'-59 retrograde -1243 Mar 07 j 11:27 9°M13'06 min. Earth dist. -1249 Nov 30 j 18:10 28°**8**57'58 4.23385 AU opposition -1243 May 07 j 11:12 4°M20'31 1°00'57 direct -1248 Jan 30 j 09:26 23°**8**49'20 min. Earth dist. -1243 May 08 j 17:06 -1248 Mar 19 j 03:53 27°**8**21'08 -1243 Jun 18 j 04:54 30°R € asc. node -1248 Apr 05 j 15:14 0°**Ⅱ** -1243 Jul 08 j 03:01 29°**2**23'20 direct -1248 Jun 05 j 12:51 12°**Ⅲ**11'45 -1243 Jul 28 j 01:36 evening set -1243 Oct 29 j 04:28 15°M -1248 Jun 19 i 04:33 15°**Ⅲ**13'04 0°09'45 conjunction evening set -1243 Nov 10 j 10:26 17° ML47'10 -1248 Jun 19 i 04:32 15°**Ⅱ**13'03 minimum elong max. Earth dist. -1243 Nov 21 j 15:44 20°M22'55 6.18438 AU -1248 Jun 18 j 21:48 15°**耳**09'20 behind sun begin behind sun end -1248 Jun 19 j 11:15 15°**Ⅱ**16'45 conjunction -1243 Nov 23 j 01:46 20°ML42'40 0°22'04 minimum elong max. Earth dist. -1248 Jun 19 j 22:03 15°**Ⅲ**22'45 -1243 Nov 23 i 01:47 20°ML42'41 0°22'03 6 29382 AU -1248 Jul 02 j 18:34 18°**Ⅲ**13'19 -1243 Dec 05 j 17:35 23°M 38'36 morning rise morning rise -1248 Aug 30 j 18:56 -1242 Jan 03 j 03:19 000 0° **√** -1242 Apr 11 j 18:04 12°**₹**30'10 -1248 Nov 02 j 14:14 retrograde retrograde 5°951'47 opposition -1247 Jan 01 j 07:37 0°953'21 0°42'58 opposition -1242 Jun 11 j 15:32 7°**∡**³34'59 0°00'27 min. Earth dist. -1247 Jan 01 j 04:50 0°954'17 4.34497 AU min. Earth dist. -1242 Jun 12 j 07:46 7°**∡**¹29'44 4.12183 AU 7°**∡**14'07 -1247 Jan 08 j 01:09 30°R II desc. node -1242 Jun 14 j 08:14 direct -1247 Mar 03 j 11:24 25°**Ⅲ**50'06 direct -1242 Aug 11 j 00:41 2°**х¹**40′20 -1242 Dec 13 j 18:26 21° ₹34'28 -1247 Apr 26 j 19:13 0ಂತಾ evening set -1247 Jul 08 j 20:29 13°547'51 evening set -1242 Dec 26 j 14:09 24° ₹ 36'49 0°-21'-35 conjunction -1247 Jul 22 j 04:51 16°9542'20 0°47'12 conjunction minimum elong -1242 Dec 26 j 14:07 24° ₹36'48 0°21'37 minimum elong -1247 Jul 22 j 04:48 16°9542'19 0°47'13 max. Earth dist. -1242 Dec 26 j 04:53 24° ₹31'19 6.06634 AU max. Earth dist. -1247 Jul 21 j 19:55 16°**©**37'27 6.38502 AU morning rise -1241 Jan 08 j 11:38 27° ₹ 40'22 morning rise -1247 Aug 04 j 10:18 19°535'18 -1241 Jan 18 j 10:02 0°궁 -1247 Sep 25 j 11:40 0 $^{\circ}\Omega$ retrograde -1241 May 18 j 19:51 17°る31'32 -1247 Dec 03 j 03:33 6°**£**38′09 -1241 Jul 18 j 08:34 12°중32'42 -1°-3'-32 retrograde opposition -1246 Feb 01 j 06:10 1°**Ω**43'20 1°28'21 min. Earth dist. -1241 Jul 18 j 05:00 12° 중33'53 4.02155 AU opposition

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1241 in astronomical counting style is the year 1242 BCE in historical counting style. 7°**る**39'25 opposition direct -1241 Sep 15 j 08:48 -1235 Jan 05 j 18:00 5°9526'53 0°50'33 5°527'30 4.35991 AU evening set -1240 Jan 18 j 01:07 26°る59'31 min. Earth dist. -1235 Jan 05 j 16:08 -1240 Jan 30 j 13:57 -1235 Mar 08 j 00:53 0°923'36 direct 0°≈≈ -1235 Jul 13 j 10:47 18°517'44 evening set 0°≈07'53 0°-58'-50 -1240 Jan 31 j 03:04 conjunction -1235 Jul 26 j 17:47 21°\$11'10 0°51'28 -1240 Jan 31 j 03:01 minimum elong 0°≈07'52 0°58'51 conjunction -1235 Jul 26 j 17:44 21°511'08 -1240 Jan 31 j 21:51 max. Earth dist. 0°**≈**19'11 5.99257 AU minimum elong 0°51'29 3°≈17'59 -1235 Jul 26 j 05:47 21°504'37 morning rise -1240 Feb 13 j 08:15 max. Earth dist. 6.39765 AU -1240 Apr 06 j 05:10 15°≈ morning rise -1235 Aug 08 j 21:52 24°503'04 retrograde -1240 Jun 24 j 13:05 23°≈45'09 -1235 Sep 06 j 06:09 $0^{\circ}\Omega$ -1235 Dec 07 j 10:45 opposition -1240 Aug 23 j 15:42 18°**≈**42'25 -1°-45'-20 retrograde 11°**Ω**01'32 -1240 Aug 22 j 16:51 -1234 Feb 05 j 14:25 min. Earth dist. 18°≈50'06 3.98358 AU opposition 6°**Ω**07'09 1°32'46 -1240 Sep 24 j 02:58 -1234 Feb 06 j 06:22 15°R≈ min. Earth dist. 6°**Ω**01'59 4.42073 AU direct -1240 Oct 20 j 17:26 13°≈48'23 direct -1234 Apr 08 j 22:17 1°**Ω**04'01 -1240 Nov 16 j 07:28 15°≈ -1234 Jul 27 j 08:11 15°**Ω** -1239 Feb 08 j 19:22 0°**)**€ evening set -1234 Aug 14 j 02:04 18°**Ω**46'14 evening set -1239 Feb 22 j 20:33 3°¥18'08 max. Earth dist. -1234 Aug 25 j 15:06 21°**Ω**16'45 6.42603 AU conjunction -1239 Mar 08 j 06:20 6°¥29'54 -1°-14'-9 conjunction -1234 Aug 27 j 00:40 $21^{\circ}\Omega$ 35'02 $1^{\circ}12'12$ minimum elong -1239 Mar 08 j 06:20 6°**)** €29'54 1°14'11 minimum elong -1234 Aug 27 j 00:39 21° **Ω**35'01 max. Earth dist. -1239 Mar 10 j 02:27 6°**¥**56'15 5.99292 AU morning rise -1234 Sep 08 j 20:12 $24^{\circ}\Omega 22'22$ morning rise -1239 Mar 21 j 19:08 9°**)**(43'13 -1234 Oct 05 i 13:33 0° m -1239 Jul 26 j 10:34 0° retrograde -1233 Jan 07 i 00:42 11° m 14'58 retrograde -1239 Jul 31 i 13:42 0°Y02'38 opposition -1233 Mar 08 j 14:16 6° m 22'45 1°49'17 -1239 Aug 05 j 16:26 30°R₩ min. Earth dist. -1233 Mar 09 j 18:27 6° m 13'43 4.41637 AU min. Earth dist. -1239 Sep 27 j 22:37 25° \(\) 4.02336 AU -1233 May 10 j 07:17 1° m 20'54 direct -1239 Sep 29 j 05:57 24° **★** 57'35 -1°-46'-7 -1233 Sep 13 j 22:54 19° mp 05'22 opposition evening set -1239 Nov 26 j 06:41 20° **₭** 00'59 max. Earth dist. -1233 Sep 24 j 18:33 21° m 28'18 direct 6.38821 AU -1238 Feb 18 j 00:28 $0^{\circ}\Upsilon$ 9°Υ18'28 -1238 Apr 01 j 02:46 -1233 Sep 26 j 15:27 21° mp 53'07 1°13'02 evening set conjunction -1233 Sep 26 j 15:28 21° m 53'07 minimum elong 1°13'01 -1238 Apr 14 j 19:11 12°**Υ**29'50 -1°-1'-4 -1233 Oct 09 j 05:33 24° m 39'49 conjunction morning rise -1238 Apr 14 j 19:14 12°**Υ**29'52 -1233 Nov 03 j 03:27 0°**♀** 1°01'04 minimum elong -1238 Apr 16 j 22:21 12°**Υ**59'40 -1232 Feb 07 j 16:10 11°**⊆**53'34 max. Earth dist. 6.06771 AU retrograde -1238 Apr 28 j 13:36 15°**Y**42'00 -1232 Apr 08 j 13:00 7°**♀**01'55 1°35'56 morning rise opposition -1238 Jul 07 j 08:45 -1232 Apr 09 j 23:17 6°**⊆**51'01 4.34751 AU 0° 8 min. Earth dist. -1238 Sep 04 j 15:16 5°**8**13'05 retrograde direct -1232 Jun 10 j 00:04 2°**ഫ**02'19 min. Earth dist. -1238 Nov 01 j 21:49 0°**8**18'40 4.12475 AU evening set -1232 Oct 13 j 21:39 20°**♀**02'46 opposition -1238 Nov 03 j 03:43 0°**8**08'28 -1°-7'-31 max. Earth dist. -1232 Oct 24 j 13:37 22°**2**27'08 6.29333 AU -1238 Nov 04 j 04:34 30°R**Y** direct -1238 Dec 31 j 21:28 25°**Y**08'47 conjunction -1232 Oct 26 j 11:49 22°**♀**53'18 0°53'10 -1237 Feb 26 j 17:53 0°**8** -1232 Oct 26 j 11:52 22°**2**53'19 minimum elong -1237 May 07 j 13:28 13°858'29 -1232 Nov 08 j 01:06 25°**Ω**43'34 evening set morning rise -1237 May 12 j 02:28 15°**8** -1232 Nov 27 j 08:50 0°M. -1231 Mar 12 j 02:23 13°M42'37 retrograde conjunction -1237 May 21 j 08:01 17°**8**05'32 0°-26'-25 opposition -1231 May 12 j 02:04 8°M49'46 0°53'44 -1237 May 21 j 08:03 17° **8**05'33 0°26'24 minimum elong min. Earth dist. -1231 May 13 i 07:25 8°M40'24 4.23179 AU -1237 May 22 j 22:16 17°**8**27'13 6.18756 AU max. Earth dist. direct -1231 Jul 12 i 14:54 3°M52'52 morning rise -1237 Jun 04 i 02:38 20°8 12'20 -1231 Oct 12 i 15:47 15°M -1237 Jul 20 j 12:32 $\Pi^{\circ}0$ -1231 Nov 14 j 19:19 22° M20'27 evening set 6.16709 AU -1237 Oct 07 j 15:40 8°**Ⅲ**39'17 max. Earth dist. -1231 Nov 26 j 03:50 24°M58'36 retrograde min. Earth dist. -1237 Dec 05 j 11:12 3°**I**I43'23 4.25055 AU -1237 Dec 06 j 04:34 3°**Д**37'31 0°-8'-7 -1231 Nov 27 j 11:14 25°M 16'53 0°16'25 opposition conjunction -1236 Jan 05 j 10:34 30°R8 minimum elong -1231 Nov 27 j 11:15 25°M 16'53 0°16'24 -1231 Dec 10 j 03:32 28°ML13'49 asc. node -1236 Jan 27 j 04:14 28°841'43 morning rise direct -1236 Feb 04 j 05:07 28°**8**35'24 -1231 Dec 17 j 20:04 0°×7 -1236 Mar 05 j 08:33 Π $^{\circ}0$ retrograde -1230 Apr 16 j 16:01 17° ₹ 14'15 -1236 Jun 10 j 09:11 16°**Д**53'50 -1230 Apr 26 j 06:52 17° ₹ 05'31 evening set desc. node -1230 Jun 16 j 12:07 12° **₹** 18'44 opposition 0°-8'-28 -1236 Jun 24 j 00:09 19°**I** 54'09 0°15'36 -1230 Jun 17 j 02:58 12°**尽** 13'56 4.10362 AU conjunction min. Earth dist. -1236 Jun 24 j 00:08 19°**I** 54'08 minimum elong 0°15'38 direct -1230 Aug 15 j 16:28 7°**∡**°24'21 behind sun begin -1236 Jun 23 j 22:59 19°**Ⅲ**53'30 evening set -1230 Dec 18 j 10:10 26° ₹23'48 behind sun end -1236 Jun 24 j 01:16 19°**Ⅲ**54'46 max. Earth dist. -1236 Jun 24 j 15:44 20°**I**02'45 6.31009 AU conjunction -1230 Dec 31 j 06:32 29°**尽** 27'16 0°-27'-20 morning rise -1236 Jul 07 j 13:03 22°**Ⅲ**53'16 minimum elong -1230 Dec 31 j 06:30 29°**尽**27'14 0°27'23

max. Earth dist.

-1230 Dec 30 j 22:47 29° ₹22'38

-1229 Jan 02 j 13:27

6.04878 AU

-1236 Aug 10 j 06:36

retrograde

-1236 Nov 06 j 22:00 10°524'47

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1229 in astronomical counting style is the year 1230 BCE in historical counting style. -1229 Jan 13 j 05:13 2°る32'05 conjunction -1223 Jul 31 j 06:23 25°5540'20 0°55'30 morning rise minimum elong -1229 May 23 j 23:13 22°る32'11 -1223 Jul 31 j 06:20 25°540'19 retrograde 0°55'31 opposition -1229 Jul 23 j 10:19 17°る32'50 -1°-11'-3 -1223 Jul 30 j 15:49 25°532'24 6.40728 AU max. Earth dist. -1223 Aug 13 j 09:02 28°531'17 min. Earth dist. morning rise -1229 Sep 20 j 05:21 12°₹39'33 -1223 Aug 20 j 06:00 direct 0 $^{\circ}\Omega$ -1223 Nov 25 j 00:02 -1228 Jan 14 j 06:58 0°≈ 15°**Ω** -1228 Jan 23 j 00:38 -1223 Dec 11 j 16:50 evening set 2°≈04'40 retrograde 15°**Ω**26'39 -1223 Dec 28 j 09:58 15°R**Ω** -1228 Feb 05 j 03:53 5°≈14'05 -1°-2'-27 conjunction opposition -1222 Feb 09 j 23:16 $10^{\circ}\Omega$ 32'36 $1^{\circ}36'48$ min. Earth dist. minimum elong -1228 Feb 05 j 03:50 5°≈14'04 1°02'28 -1222 Feb 10 j 16:30 $10^{\circ}\Omega$ 27'01 4.42578 AU max. Earth dist. -1228 Feb 06 j 03:35 5°≈28'22 5.98138 AU direct -1222 Apr 13 j 08:51 5°**Ω**29'33 -1228 Feb 18 j 10:06 -1222 Jul 09 j 14:28 morning rise 8°**≈**25'12 15°**Ω** -1222 Aug 18 j 11:39 23°**Ω**10'38 -1228 Mar 17 j 18:31 15°≈ evening set retrograde -1228 Jun 29 j 20:19 28°≈57'03 max. Earth dist. -1222 Aug 29 j 21:03 25°**Ω**39'18 6.42593 AU opposition -1228 Aug 28 j 19:34 23°≈53'56 -1°-48'-2 min. Earth dist. -1228 Aug 27 j 19:37 24°**≈**02'00 3.97776 AU conjunction -1222 Aug 31 j 09:06 25°**Ω**58'59 1°13'34 direct -1228 Oct 25 j 19:35 18°≈59'41 minimum elong -1222 Aug 31 j 09:05 25°**Ω**58'58 1°13'35 -1227 Jan 21 j 15:04 0°\ morning rise -1222 Sep 13 j 03:38 28° **Q**45'55 evening set -1227 Feb 28 j 02:05 8°**)**(31'40 -1222 Sep 18 j 20:52 retrograde -1221 Jan 11 j 10:27 15° m 39'31 conjunction -1227 Mar 13 j 13:00 11°\(\pm\)43'58 -1°-13'-55 opposition -1221 Mar 13 j 00:58 10° Mp 47'29 1°49'13 minimum elong -1227 Mar 13 j 13:00 11°\(\dagger)43'59 1°13'56 min. Earth dist. -1221 Mar 14 i 07:27 10° m 37'44 4.41113 AU max. Earth dist. -1227 Mar 15 j 11:30 12° **¥** 11'42 5.99290 AU direct -1221 May 14 j 19:21 5° m 45'53 morning rise -1227 Mar 27 j 03:03 14° + 57'48 evening set -1221 Sep 18 i 07:18 23° m 31'33 -1227 Jun 07 j 06:20 $0^{\circ}\Upsilon$ max. Earth dist. -1221 Sep 29 j 00:16 25° m 53'24 6.37808 AU -1227 Aug 05 j 16:19 5°**Y**14'51 retrograde -1227 Oct 02 j 22:14 0°**Y**20'57 4.02929 AU -1221 Sep 30 j 23:16 26° mp 19'26 1°11'25 min. Earth dist. conjunction opposition -1227 Oct 04 j 07:21 0°Υ09'39 -1°-42'-39 -1221 Sep 30 j 23:17 26° mp 19'27 minimum elong 1°11'26 -1227 Oct 05 j 11:40 30°R € -1221 Oct 13 j 13:03 29° M 06'25 morning rise -1227 Dec 01 j 07:51 25° ¥ 12'38 -1221 Oct 17 j 14:33 0°**♀** direct -1220 Feb 12 j 06:05 16° **2**25'08 -1226 Jan 25 j 19:41 $0^{\circ}\Upsilon$ retrograde -1226 Apr 06 j 09:12 14°**Y**28'39 -1220 Apr 13 j 04:02 11°**£**33'22 1°31'35 evening set opposition -1220 Apr 14 j 14:01 11°**2**22'33 4.33309 AU min. Earth dist. -1226 Apr 20 j 02:18 17°**Y**39'49 0°-57'-4 -1220 Jun 14 j 12:33 6°**೨**34'04 conjunction direct -1226 Apr 20 j 02:21 17°**Υ**39'51 0°57'05 -1220 Oct 18 j 08:07 24°**£**37'59 minimum elong evening set 6.07899 AU -1226 Apr 22 j 04:54 18°**Υ**09'16 -1220 Oct 29 j 02:26 27°**2**04'14 max. Earth dist. max. Earth dist. 6.27590 AU -1226 May 03 j 21:13 20°**Y**51'40 morning rise -1226 Jun 14 j 15:14 0°8 conjunction -1220 Oct 30 j 22:26 27° **2**29'14 0°48'48 retrograde -1226 Sep 09 j 12:13 10°**8**15'08 minimum elong -1220 Oct 30 j 22:29 27°**2**29'16 0°48'47 min. Earth dist. -1226 Nov 06 j 19:36 5°**8**20'23 4.13976 AU -1220 Nov 10 j 23:54 0°M opposition -1226 Nov 08 j 00:07 5°**8**10'39 0°-59'-41 morning rise -1220 Nov 12 j 11:48 0° ML20'18 -1225 Jan 05 j 22:10 0°810'29 -1219 Jan 27 j 12:25 15° M direct -1225 Apr 24 j 21:13 15°8 -1219 Mar 17 j 00:20 18° M27'36 retrograde -1225 May 12 j 15:45 18°**8**56'00 -1219 May 05 j 15:45 15°RM evening set opposition -1219 May 16 j 23:42 13°M34'30 0°45'46 -1225 May 26 j 10:16 22°\(20'14 \) 0°-20'-27 -1219 May 18 j 04:18 13° M-25'22 4.21237 AU conjunction min. Earth dist. -1225 May 26 j 10:18 22°**8**02'15 minimum elong 0°20'27 direct -1219 Jul 17 i 08:48 8°M38'01 -1225 May 27 j 23:59 22°**8**23'32 -1219 Sep 22 i 08:25 15°M max. Earth dist. 6.20498 AU -1225 Jun 09 i 04:17 25°**8**08'01 morning rise evening set -1219 Nov 19 j 11:04 27° ML 10'29 -1225 Jul 01 j 09:19 0°**Ⅱ** max. Earth dist. -1219 Nov 30 i 21:21 29°ML50'24 6.14742 AU retrograde -1225 Oct 12 j 04:12 13°**Ⅲ**25'58 -1219 Dec 01 j 13:45 0°**√** -1225 Dec 05 j 13:44 9°**Ⅱ**06'37 asc node -1225 Dec 10 j 18:59 8°II24'36 0°00'49 conjunction -1219 Dec 02 j 03:21 0°**₹**07'56 0°10'19 opposition 8°**Ⅲ**30′09 -1219 Dec 02 j 03:21 min. Earth dist. -1225 Dec 10 j 02:31 4.26841 AU minimum elong 0°**х** 07′57 0°10'18 direct -1224 Feb 08 j 23:26 3°**Ⅲ**22'12 behind sun begin -1219 Dec 01 j 20:58 0°**х**¹04'14 evening set -1224 Jun 15 j 05:18 21°**Ⅱ**36'02 behind sun end -1219 Dec 02 j 09:45 0°**х¹**11′40 morning rise -1219 Dec 14 j 20:34 3°**х** 06′05 -1224 Jun 28 j 19:06 24°**Ⅲ**35'12 0°21'23 -1218 Mar 05 j 07:17 18° ₹ 54'17 conjunction desc. node -1224 Jun 28 j 19:05 24°**Ⅲ**35'11 -1218 Apr 21 j 20:54 22° ₹ 16'13 minimum elong 0°21'24 retrograde -1224 Jun 29 j 05:55 24°**Ⅱ**41'08 -1218 Jun 21 j 16:20 17°**尽** 20'13 0°-17'-57 max. Earth dist. 6.32662 AU opposition -1224 Jul 12 j 06:58 27°**Ⅲ**33'09 -1218 Jun 22 j 03:43 17° **尽** 16'31 morning rise min. Earth dist. 4.08539 AU -1224 Jul 23 j 14:00 0 \circ \odot direct -1218 Aug 20 j 15:01 12°**х** 26′07 retrograde -1224 Nov 11 j 07:36 14°957'47 -1218 Dec 16 j 23:51 0°ಕ opposition -1223 Jan 10 j 04:18 10°9500'20 0°57'53 evening set -1218 Dec 23 j 09:10 1°る30'33 min. Earth dist. -1223 Jan 10 j 05:45 9°**©**59'51 4.37367 AU -1223 Mar 12 j 16:44 4°956'55 -1217 Jan 05 j 06:33 4°る35'04 0°-33'-17 direct conjunction -1223 Jul 18 j 00:31 22°547'48 -1217 Jan 05 j 06:30 4°る35'03 0°33'19 evening set minimum elong

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1217 in astronomical counting style is the year 1218 BCE in historical counting style. -1217 Jan 05 j 04:35 4° 중33'54 6.03391 AU retrograde -1212 Nov 15 j 12:53 19°522'20 max. Earth dist. -1217 Jan 18 j 06:05 7°る40'58 -1211 Jan 14 j 11:32 14°525'28 1°04'38 morning rise opposition -1211 Jan 14 j 14:58 14°\$24'20 4.38476 AU -1217 May 29 j 10:04 27°る48'25 min. Earth dist. retrograde -1217 Jul 28 j 18:33 22°₹48'33 -1°-18'-29 -1211 Mar 17 j 03:05 9°**9**22'05 direct opposition -1217 Jul 28 j 09:42 22°**궁**51'28 -1211 Jul 22 j 11:12 27°510'54 min. Earth dist. 3.99681 AU evening set -1217 Sep 25 j 10:19 17°₹55'20 direct -1217 Dec 27 j 08:06 0°≈ conjunction -1211 Aug 04 j 15:42 0°**Ω**02'41 0°59'06 -1211 Aug 04 j 15:39 0°**Ω**02'40 0°59'08 evening set -1216 Jan 28 j 06:21 7°≈23'04 minimum elong -1211 Aug 03 j 19:49 29°551'52 max. Earth dist. 6.41294 AU conjunction -1216 Feb 10 j 10:34 10°≈33'06 -1°-5'-47 -1211 Aug 04 j 10:46 0° Ω minimum elong -1216 Feb 10 j 10:32 10°≈33'04 1°05'49 morning rise -1211 Aug 17 j 17:16 2°**Ω**52'56 -1216 Feb 11 j 14:07 10°≈49'41 -1211 Oct 19 j 13:05 max. Earth dist. 5.97794 AU 15°**Ω** -1216 Feb 23 j 18:05 13°≈44'53 -1211 Dec 15 j 23:55 morning rise retrograde 19°**Ω**46'57 -1216 Feb 29 j 00:19 -1210 Feb 13 j 09:52 15°RΩ -1216 May 12 j 18:07 opposition -1210 Feb 14 j 06:31 14°**Ω**53'19 1°40'15 retrograde -1216 Jul 05 j 04:05 4°**)** 17'21 min. Earth dist. -1210 Feb 15 j 03:08 14°**Ω**46'39 4.42593 AU 9°**£**50′23 -1216 Aug 28 j 09:18 30°R≈ direct -1210 Apr 17 j 19:07 min. Earth dist. -1216 Sep 01 j 23:27 29°**≈**22'59 3.98140 AU -1210 Jun 18 j 15:35 15°**Ω** opposition -1216 Sep 03 j 02:37 29°≈13'49 -1°-49'-57 evening set -1210 Aug 22 j 19:36 $27^{\circ}\Omega$ 32'06 direct -1216 Oct 31 j 00:42 24°≈19'18 max. Earth dist. -1210 Sep 03 j 02:08 $29^{\circ}\Omega 59'27$ 6.42040 AU -1216 Dec 30 j 10:19 0°**₩** -1210 Sep 03 j 03:07 evening set -1215 Mar 05 i 10:05 13° + 49'45 conjunction -1210 Sep 04 i 16:17 0° m 20'18 1°14'31 conjunction -1215 Mar 18 j 21:58 17° ¥ 02'02 -1°-13'-9 minimum elong -1210 Sep 04 i 16:16 0° m 20'181°14'31 minimum elong -1215 Mar 18 j 21:59 17° ¥ 02'03 1°13'09 morning rise -1210 Sep 17 j 09:53 3° m 07'07 max. Earth dist. -1215 Mar 20 j 22:12 17°\mathbf{3}0'42 6.00310 AU retrograde -1209 Jan 15 j 18:56 20° m 03'41 -1215 Apr 01 j 12:53 20° ¥ 15'44 -1209 Mar 17 j 11:21 15° **m**) 11'48 morning rise opposition 1°48'34 -1215 May 15 j 04:27 $0^{\circ}\Upsilon$ -1209 Mar 18 j 18:12 15° Mp 01'57 4.40052 AU min. Earth dist. -1215 Aug 10 j 17:51 10°**Υ**26'11 -1209 May 19 j 04:03 10° m 10'30 retrograde direct -1215 Oct 07 j 23:43 5°**Υ**32'06 4.04473 AU evening set -1209 Sep 22 j 15:44 27° m 59'10 min. Earth dist. -1215 Oct 09 j 08:38 5°**Y**20′51 -1°-38'-24 -1209 Oct 01 j 17:55 0∘Ω opposition -1215 Dec 06 j 12:12 0°**Υ**23'22 -1209 Oct 03 j 08:17 0°**2**21'20 6.36318 AU direct max. Earth dist. -1214 Apr 11 j 14:17 19°**Υ**34'30 evening set -1209 Oct 05 j 07:15 0°**△**47'28 1°09'23 conjunction -1214 Apr 25 j 07:58 22°**Υ**45'02 0°-52'-45 -1209 Oct 05 j 07:17 conjunction minimum elong 0°**₽**47'29 1°09'24 -1214 Apr 25 j 08:01 22°**Υ**45'04 0°52'44 -1209 Oct 17 j 20:47 minimum elong morning rise 3°**£**34'57 -1214 Apr 27 j 11:08 23°**Y**14'39 -1208 Feb 16 j 23:11 21° **2**00′24 max. Earth dist. 6.09833 AU retrograde morning rise -1214 May 09 j 02:56 25° Υ 56'02 opposition -1208 Apr 17 j 20:43 16°**£**08'37 1°26'38 -1214 May 27 j 03:10 0°**8** min. Earth dist. -1208 Apr 19 j 07:18 15° **2**57'37 4.31477 AU -1214 Sep 04 j 15:06 15°8 direct -1208 Jun 19 j 03:23 11°**♀**09'44 retrograde -1214 Sep 14 j 05:04 15°**8**09'08 -1208 Oct 22 j 20:00 29°**2**18'14 evening set -1214 Sep 23 j 17:59 15°R8 -1208 Oct 25 j 21:40 -1214 Nov 12 j 17:27 10°**8**05'01 0°-51'-38 max. Earth dist. -1208 Nov 02 j 14:59 opposition 1°M45'35 6.25575 AU min. Earth dist. -1214 Nov 11 j 13:51 10°**8**14'24 4.16082 AU -1213 Jan 10 j 19:05 -1208 Nov 04 j 10:25 2°M10'22 0°44'05 direct 5°**8**04'31 conjunction -1208 Nov 04 i 10:27 -1213 Apr 06 i 13:51 15°8 minimum elong 2°M10'24 0°44'03 -1208 Nov 17 i 00:15 evening set -1213 May 17 j 14:43 23°**8**44'16 morning rise 5°**™**02'27 -1207 Jan 02 j 21:57 15°M -1213 May 31 i 08:41 26° 849'25 0°-14'-33 conjunction retrograde -1207 Mar 21 j 23:54 23° ML 18'59 minimum elong -1213 May 31 i 08:42 26°849'26 opposition -1207 May 21 j 23:32 18° M25'33 0°37'20 0°14'33 -1213 May 31 j 05:25 26°847'36 min. Earth dist. -1207 May 23 j 01:05 18° ML17'22 4.19190 AU behind sun begin behind sun end -1213 May 31 j 11:59 26° 851'16 -1207 Jun 20 j 14:58 15°RML max. Earth dist. -1213 Jun 01 j 17:28 27°**8**07'50 6.22592 AU -1207 Jul 22 j 03:05 13°M29'27 direct morning rise -1213 Jun 14 j 02:14 29°854'03 -1207 Aug 22 j 09:58 15°M -1213 Jun 14 j 12:55 Π $^{\circ}$ 0 -1207 Nov 15 j 01:04 0°⊀ asc. node -1213 Oct 15 j 10:22 18°**Д**02'30 evening set -1207 Nov 24 j 04:59 2°×107'02 retrograde -1213 Oct 16 j 14:05 18°**Ⅲ**02'38 -1213 Dec 15 j 05:50 13°**Ⅲ**01'48 0°09'25 -1207 Dec 06 j 21:55 5°**х** 05'32 0°04'03 opposition conjunction -1213 Dec 14 j 16:23 13°**I**I06'19 -1207 Dec 06 j 21:56 0°04'02 min. Earth dist. 4.28735 AU minimum elong 5°**х** 05′33 -1212 Feb 13 j 15:48 -1207 Dec 06 j 14:02 5°**х¹**00′56 direct 7°**Ⅲ**59'09 behind sun begin -1212 Jun 19 j 21:05 26° **1**08'32 5°**х** 10′10 evening set behind sun end -1207 Dec 07 j 05:51 max. Earth dist. -1207 Dec 05 j 20:59 4°**∡**°50'54 6.12862 AU conjunction -1212 Jul 03 j 10:05 29°**Ⅱ**06'41 0°26'51 morning rise -1207 Dec 19 j 15:48 8°**х** 04'49 minimum elong -1212 Jul 03 j 10:04 29°**Ⅲ**06'40 0°26'51 desc. node -1206 Jan 11 j 20:11 13° ₹22'13 max. Earth dist. -1212 Jul 03 j 18:00 29°**Ⅱ**11'01 6.34213 AU retrograde -1206 Apr 27 j 05:30 27° ₹ 24'04 -1212 Jul 07 j 11:07 -1206 Jun 26 j 22:28 22°**尽** 27'32 0ಂತಾ opposition -1212 Jul 16 j 20:35 2°503'29 min. Earth dist. -1206 Jun 27 j 07:31 22° ₹24'35 4.06993 AU morning rise

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 18

Attention, astronomical year style is used: The year -1206 in astronomical counting style is the year 1207 BCE in historical counting style. direct -1206 Aug 25 j 17:01 17°\$\struct\frac{17}{3}3'40\$ direct -1200 Feb 18 j 06:32 12°\$\textbf{I}33'54\$ -1206 Nov 29 j 08:13 0°\$\textstyle -1200 Jun 21 j 11:21 0°\$\textstyle -1200 Jun 21 j 1

Attention, astronomi	ical year style is used: Th	-	in astronomical co	ounting style is the year			
direct	-1206 Aug 25 j 17:01			direct	-1200 Feb 18 j 06:32		
	-1206 Nov 29 j 08:13	0° ප			-1200 Jun 21 j 11:21	0ಂತಾ	
evening set	-1206 Dec 28 j 09:51	6° る 41'49		evening set	-1200 Jun 24 j 12:43	0° ട്ട 39'51	
		_					
conjunction	-1205 Jan 10 j 08:01	9° る 47'10	0°-39'-1	conjunction	-1200 Jul 08 j 00:32	3° © 37'02	0°32'08
minimum elong	-1205 Jan 10 j 07:58	9° る 47'09	0°39'02	minimum elong	-1200 Jul 08 j 00:29	3°937'00	0°32'08
max. Earth dist.	-1205 Jan 10 j 10:01	9° る 48'22	6.02309 AU	max. Earth dist.	-1200 Jul 08 j 02:55	3°538'20	6.35439 AU
morning rise	-1205 Jan 23 j 08:44	12° る 54'01		morning rise	-1200 Jul 21 j 10:00	6°932'52	
	-1205 Apr 19 j 11:53	0° ≈		retrograde	-1200 Nov 19 j 20:01		
retrograde	-1205 Jun 03 j 18:31	3°≈06'37		opposition	-1199 Jan 18 j 19:15		1°11'02
	-1205 Jul 19 j 10:42			min. Earth dist.	-1199 Jan 19 j 01:48		4.39283 AU
opposition	-1205 Aug 03 j 02:51		-1°-25'-16	direct	-1199 Mar 21 j 14:36	13°9547'15	
min. Earth dist.	-1205 Aug 02 j 13:56		3.99203 AU		-1199 Jul 19 j 13:27	$0^{\circ}\Omega$	
direct	-1205 Sep 30 j 14:21			evening set	-1199 Jul 26 j 22:11	1° Ω 34'50	
	-1205 Dec 06 j 09:26	0° ≈		max. Earth dist.	-1199 Aug 08 j 03:51	4° Ω 14'09	6.41618 AU
evening set	,	12°≈41'15					
	-1204 Feb 12 j 03:17	15°≈		conjunction	-1199 Aug 09 j 01:42	4° Ω 26'03	1°02'24
				minimum elong	-1199 Aug 09 j 01:40	4° Ω 26'02	1°02'25
conjunction	-1204 Feb 15 j 17:09	15°≈51'39	-1°-8'-34	morning rise	-1199 Aug 22 j 01:55	7° Ω 15'40	
minimum elong	-1204 Feb 15 j 17:07		1°08'36		-1199 Sep 28 j 14:49		
max. Earth dist.	-1204 Feb 17 j 00:34	16°≈10'32	5.97924 AU	retrograde	-1199 Dec 20 j 06:26		
morning rise	-1204 Feb 29 j 01:39	19° ≈ 03'47		opposition	-1198 Feb 18 j 14:54		1°43'11
	-1204 Apr 18 j 01:02	0°) {		min. Earth dist.	-1198 Feb 19 j 12:46		4.42440 AU
retrograde	-1204 Jul 10 j 10:45	9°) (34'49	2 000 (5 1 1 1 1		-1198 Mar 30 j 07:18		
min. Earth dist.	-1204 Sep 07 j 03:50	4°)(40'22	3.98867 AU	direct	-1198 Apr 22 j 04:03		
opposition	-1204 Sep 08 j 08:04	4°) €30'48	-1°-50'-57		-1198 May 15 j 05:28	15° Ω	
	-1204 Oct 21 j 00:51	30°R≈			-1198 Aug 18 j 05:47	0° m)	
direct	-1204 Nov 05 j 06:52			evening set	-1198 Aug 27 j 04:28	1° m 55'40	6 41 400 AV
	-1204 Nov 20 j 12:35	0°) {		max. Earth dist.	-1198 Sep 07 j 07:12	4° Mp 21'18	6.41408 AU
evening set	-1203 Mar 10 j 16:38	19° H 03'39			1100 0 00:00 0	40.00 40.40	1015102
	1000) (01:05 04	222//15145	10 111 10	conjunction	-1198 Sep 09 j 00:07	4° Mp 43'43	1°15'03
conjunction	-1203 Mar 24 j 05:34			minimum elong	-1198 Sep 09 j 00:06	4° Mp 43'43	1°15'03
minimum elong	-1203 Mar 24 j 05:36		1°11'50	morning rise	-1198 Sep 21 j 17:05	7° Mp 30'30	
max. Earth dist.	-1203 Mar 26 j 08:29	22°) (45'56	6.01555 AU	retrograde	-1197 Jan 20 j 07:22	24° m/30'19	1045115
morning rise	-1203 Apr 06 j 21:10	25° ¥ 29'13 0° Y		opposition	-1197 Mar 21 j 23:33	19° Mp 38'37	1°47'17
	-1203 Apr 26 j 10:47			min. Earth dist.	-1197 Mar 23 j 08:12	19° Mp 28'11	4.38992 AU
retrograde	-1203 Aug 15 j 17:24		4.06104.411	direct	-1197 May 23 j 16:31	14° m 37'38	
min. Earth dist.	-1203 Oct 12 j 22:41		4.06104 AU		-1197 Sep 15 j 16:58	ე∘ ⊽	
opposition	-1203 Oct 14 j 07:26 -1203 Dec 11 j 12:45	5° Υ 28'51	-1°-33'-30	evening set max. Earth dist.	-1197 Sep 27 j 01:06 -1197 Oct 07 j 17:37	2° £ 29'01	6 24027 ATT
direct	-1203 Dec 11 j 12:45 -1202 Apr 16 j 17:36			max. Earth dist.	-119/Oct 0/j 1/:3/	4-225140	6.34927 AU
evening set	-1202 Apr 10 J 17.30	24 33 09		amiumatian	1107 Oat 00 : 16:22	50 0 17145	1°06'57
conjunction	-1202 Apr 30 j 11:30	270 14150	0°-48'-7	conjunction minimum elong	-1197 Oct 09 j 16:22 -1197 Oct 09 j 16:24	5° ♀ 17'45 5° ♀ 17'47	1°06'56
minimum elong	-1202 Apr 30 j 11:33	27° Υ 45'01	0°48'07	morning rise	-1197 Oct 09 j 16.24 -1197 Oct 22 j 05:39	ა ഫ 1747 8° ഫ 05'44	1 00 30
max. Earth dist.	-1202 Apr 30 j 11:33 -1202 May 02 j 11:28	28° Y 12'37	6.11698 AU	retrograde	-1197 Oct 22 j 03:39 -1196 Feb 21 j 15:23	8 ≥ 03 44 25° ♀ 37'33	
max. Earm dist.	-1202 May 02 j 11:28 -1202 May 10 j 06:16	0° 8	0.11098 AU	opposition	-1196 Feb 21 j 13:23 -1196 Apr 22 j 14:20		1°21'07
morning rise	-1202 May 10 j 06:10 -1202 May 14 j 06:47	0° 8 55'13		min. Earth dist.	-1196 Apr 22 j 14.20 -1196 Apr 23 j 23:04		4.29860 AU
morning risc	-1202 May 14 j 00:47 -1202 Jul 23 j 00:02			direct	-1196 Apr 23 j 25:04 -1196 Jun 23 j 16:47		4.29000 AU
retrograde	-1202 Sep 18 j 19:42			direct	-1196 Oct 09 j 11:17	0°ML	
min. Earth dist.	-1202 Sep 16 j 17:42 -1202 Nov 16 j 07:17	15° 8 03'37	4.17990 AU	evening set	-1196 Oct 27 j 08:36	3°M59'33	
mm. Earth dist.	-1202 Nov 16 j 17:56	15°R 8	4.17990 AU	max. Earth dist.	-1196 Nov 07 j 06:34	6°M29'10	6.23892 AU
opposition	-1202 Nov 10 j 17:30 -1202 Nov 17 j 09:08	14° 8 54'50	0°-43'-25	max. Earth dist.	-1170 NOV 07 J 00.54	0 1102710	0.23672 AC
direct	-1202 Nov 17 j 05:08 -1201 Jan 15 j 15:26	9° 8 53'55	0 -43 -23	conjunction	-1196 Nov 08 j 23:09	6°M52'26	0°39'04
direct	-1201 Mar 15 j 14:56			minimum elong	-1196 Nov 08 j 23:11	6°M52'28	0°39'04
evening set	-1201 May 22 j 12:00			morning rise	-1196 Nov 21 j 13:18	9°M45'23	0 3704
evening set	-1201 May 29 j 07:33	0°II		morning rise	-1196 Dec 15 j 02:19		
	1201 Way 27 J 07.55	о д		retrograde	-1195 Mar 27 j 01:30		
conjunction	-1201 Jun 05 j 05:44	1° Ⅱ 33'01	0°-8'-38	opposition	-1195 May 26 j 23:38		0°28'40
minimum elong	-1201 Jun 05 j 05:44	1° Д 33'01	0°08'38	min. Earth dist.	-1195 May 20 j 23:38 -1195 May 27 j 23:47		4.17550 AU
behind sun begin	-1201 Jun 04 j 22:32	1° П 29'00	3 00 30	direct	-1195 Jul 26 j 23:41	18°M20'36	1.1,550 AU
behind sun end	-1201 Jun 05 j 12:55	1° П 29'00		anoot	-1195 Oct 28 j 16:23	0° ⊼	
max. Earth dist.	-1201 Jun 06 j 11:56	1° ∏ 49'55	6.24418 AU	desc. node	-1195 Nov 21 j 07:41	5° ∡ 15'46	
morning rise	-1201 Jun 18 j 22:23	1 П4933 4°П36'30	5.27716 AU	evening set	-1195 Nov 28 j 22:25	7° ∡ 1340	
asc. node	-1201 Juli 18 j 22.23 -1201 Aug 25 j 08:07	4 Д3630 17°Д52'01		evening set	1175 NOV 20 J 22.23	/ 🗡 01 30	
retrograde	-1201 Aug 23 j 08.07 -1201 Oct 21 j 00:02			conjunction	-1195 Dec 11 j 15:54	100 701112	0°-2'-18
•	-1201 Oct 21 j 00:02 -1201 Dec 19 j 16:05		0°17'52	minimum elong	·		
opposition min. Earth dist.	-1201 Dec 19 j 16:05 -1201 Dec 19 i 05:04			behind sun begin	-1195 Dec 11 j 15:54 -1195 Dec 11 j 07:52		0 02/20
THUE EMPLY OISE	-1401 1700 1910104	17 H4U / 1	T11.12.1 ALL	DCHIHU SHILDESIN	- 1 1 2.7 (7C C 1 1 1 U / ` 7 /	2 X 10 10	

behind sun begin -1195 Dec 11 j 07:52 9° ₹756'30

min. Earth dist.

-1201 Dec 19 j 05:04 17°**Ц**40'23 4.30325 AU

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1195 in astronomical counting style is the year 1196 BCE in historical counting style. behind sun end -1195 Dec 11 i 23:56 10° ₹05'54 max. Earth dist. -1189 Jun 11 j 02:28 6°**П**26'51 6.25861 AU max. Earth dist. -1195 Dec 10 j 18:07 9°**х** 48′23 -1189 Jun 23 j 16:41 9°**Ⅱ**15′02 6.11423 AU morning rise -1195 Dec 24 j 10:38 13° ₹01'27 -1189 Jul 06 і 03:04 11°**Д**58'34 morning rise asc. node -1194 Mar 23 j 00:28 -1189 Oct 25 j 08:06 27°**II**08'51 0°₹ retrograde -1194 May 02 j 09:16 -1189 Dec 24 j 01:02 22°**Ⅱ**09'08 retrograde 2°る28'06 opposition 0°26'04 -1189 Dec 23 j 16:06 22°**Ц**12'08 4.31535 AU -1194 Jun 12 j 02:43 30°R*≯*7 min. Earth dist. -1194 Jul 02 j 02:52 -1188 Feb 22 j 18:52 17°**Д**06'08 opposition 27°**∡**°31′03 0°-36'-35 direct min. Earth dist. -1194 Jul 02 j 07:53 27°**∡**¹29'25 4.05898 AU -1188 Jun 04 j 19:16 0.ಎ direct -1194 Aug 30 j 15:59 22°**尽** 37'27 evening set -1188 Jun 29 j 03:13 5°909'56 -1194 Nov 09 j 11:06 0°ਰ 0°37'08 evening set -1193 Jan 02 j 08:54 11°**♂**47'57 conjunction -1188 Jul 12 j 14:06 8°**©**06'21 -1188 Jul 12 j 14:04 minimum elong 8°906'19 0°37'10 -1193 Jan 15 j 07:51 14° ₹53'56 0°-44'-18 -1188 Jul 12 j 13:39 conjunction max. Earth dist. 8°**5**06'06 6.36343 AU minimum elong -1193 Jan 15 j 07:48 14°**⋜**53'54 0°44'20 morning rise -1188 Jul 25 j 22:17 11°501'19 max. Earth dist. -1193 Jan 15 j 14:17 14°**궁**57'47 6.01644 AU retrograde -1188 Nov 24 j 03:25 28°511'58 morning rise -1193 Jan 28 j 09:28 18°**⋜**01'28 opposition -1187 Jan 23 j 03:00 23°516'08 -1193 Mar 23 j 21:30 0°≈ min. Earth dist. -1187 Jan 23 j 11:43 23°513'17 4.39841 AU retrograde -1193 Jun 09 j 01:01 8°≈17'38 direct -1187 Mar 26 j 01:14 18°512'45 opposition -1193 Aug 08 j 07:52 3°≈16'35 -1°-31'-9 -1187 Jul 02 j 17:32 $0^{\circ}\Omega$ min. Earth dist. -1193 Aug 07 j 16:57 3°≈21'33 3.99045 AU evening set -1187 Jul 31 j 09:02 5°**Ω**59'35 -1193 Sep 04 j 09:34 30°R궁 max. Earth dist. -1187 Aug 12 j 09:29 8°**Ω**36'11 6.41774 AU direct -1193 Oct 05 j 18:11 28°₹23'11 -1193 Nov 05 i 20:25 0°≈ conjunction -1187 Aug 13 j 11:17 8°Ω50'14 1°05'19 -1192 Jan 26 i 12:47 15°≈ minimum elong -1187 Aug 13 i 11:15 8°**Ω**50′12 1°05'19 -1192 Feb 07 j 14:42 17°≈51'30 morning rise -1187 Aug 26 j 10:31 11° **Ω**39'21 evening set -1187 Sep 11 j 02:28 15°Ω -1192 Feb 20 j 21:01 21°≈02'12 -1°-10'-43 -1187 Dec 24 j 14:57 $28^{\circ}\Omega 32'31$ conjunction retrograde -1192 Feb 20 j 20:59 21°≈02'11 1°10'44 -1186 Feb 22 j 23:53 23° Ω 39'31 1°45'30 minimum elong opposition -1192 Feb 22 j 08:34 21°≈23'32 5.98276 AU -1186 Feb 23 j 23:42 23° **Ω**31'50 4.42218 AU max. Earth dist. min. Earth dist. -1192 Mar 05 j 06:27 24°≈14'35 direct -1186 Apr 26 j 14:29 $18^{\circ}\Omega$ 36'55 morning rise -1192 Mar 30 j 00:58 0°**光** -1186 Aug 01 j 08:48 0°m -1192 Jul 15 j 13:27 14° **∺**43'08 retrograde evening set -1186 Aug 31 j 13:14 6° Mp 20'12-1192 Sep 12 j 04:09 9° **★** 48'46 3.99709 AU max. Earth dist. -1186 Sep 11 j 15:26 8° Mp 45'466.40816 AU min. Earth dist. -1192 Sep 13 j 09:22 9° **★** 38'52 -1°-50'-59 opposition -1192 Nov 10 j 07:32 4° **★** 43'37 -1186 Sep 13 j 08:13 9° m/08'10 1°15'08 direct conjunction -1191 Mar 15 j 19:45 24° **★** 08'43 -1186 Sep 13 j 08:13 9° m 08'10 1°15'09 evening set minimum elong -1186 Sep 26 j 00:15 11° m 54'51 morning rise conjunction -1191 Mar 29 j 09:24 27°**)** 20'39 -1°-9'-58 retrograde -1185 Jan 24 j 17:31 28° M 57'30 minimum elong -1191 Mar 29 j 09:27 27°**米**20'41 1°09'59 opposition -1185 Mar 26 j 11:42 24° m 05'49 1°45'20 max. Earth dist. -1191 Mar 31 j 11:11 27°¥50'02 6.02779 AU min. Earth dist. -1185 Mar 27 j 20:00 23° m 55'31 4.38069 AU -1191 Apr 09 j 16:05 0°**Υ** direct -1185 May 28 j 02:52 19° m 05'09 -1191 Apr 12 j 01:55 0°**Υ**33'52 -1185 Aug 29 j 15:57 morning rise 0∘**⊽** -1191 Aug 20 j 11:50 20°**Y**29'31 -1185 Oct 01 j 10:01 6°**£**58'23 retrograde evening set 6.33720 AU -1191 Oct 17 j 18:06 15°**Υ**35'22 4.07573 AU max. Earth dist. -1185 Oct 12 j 01:42 9°**₽**21'03 min. Earth dist. -1191 Oct 19 j 02:28 15°**Υ**'24'19 -1°-28'-6 opposition -1191 Dec 16 j 10:29 10° Y 25'57 -1185 Oct 14 i 00:48 direct conjunction 9°**£**47'26 1°04'06 evening set -1190 Apr 21 j 17:34 29° γ28'23 minimum elong -1185 Oct 14 i 00:50 9°**£**47'27 1°04'05 -1190 Apr 24 j 00:56 0°B morning rise -1185 Oct 26 j 14:03 12° **2**35'51 -1184 Feb 14 i 10:12 0°M -1190 May 05 j 11:57 2°**8**37'42 0°-43'-17 -1184 Feb 26 i 09:22 0°ML13'23 conjunction retrograde -1190 May 05 i 12:00 2°**8**37'44 0°43'18 -1184 Mar 09 j 07:29 30°R ₽ minimum elong -1190 May 07 j 10:24 3°**8**04'22 6.13309 AU -1184 Apr 27 j 07:43 25° **2**21'15 1°15'05 max. Earth dist. opposition -1190 May 19 j 07:05 5°**8**47'11 min. Earth dist. -1184 Apr 28 j 16:29 25° **2**10'49 4.28407 AU morning rise -1190 Jul 01 j 01:27 15°8 -1184 Jun 28 j 08:12 20°**2**23'07 direct -1184 Sep 21 j 18:01 retrograde -1190 Sep 23 j 10:04 24°842'10 0°M opposition -1190 Nov 21 j 22:09 19°**8**38'52 0°-35'-10 evening set -1184 Oct 31 j 19:55 8°M38'25 min. Earth dist. -1190 Nov 20 j 22:45 19°**8**46'49 4.19575 AU max. Earth dist. -1184 Nov 11 j 20:06 11° ML09'49 6.22307 AU -1189 Jan 05 j 08:05 15°R₩ -1189 Jan 20 j 08:57 14°**8**37'40 -1184 Nov 13 j 10:45 11°M32'03 0°33'50 direct conjunction -1189 Feb 04 j 11:48 15°**8** -1184 Nov 13 j 10:47 11°M32'04 minimum elong 0°33'49 -1189 May 12 j 22:47 Π °0 morning rise -1184 Nov 26 j 01:17 14°M25'50 evening set -1189 May 27 j 07:26 3°**Ⅱ**09'01 -1184 Nov 28 j 13:07 15°ML -1183 Feb 15 j 07:10 0°**∡**7 conjunction -1189 Jun 10 j 00:37 6°**I**12'26 0°-2'-49 retrograde -1183 Mar 31 j 23:23 2°**х** 58′14 minimum elong -1189 Jun 10 j 00:36 6°**Ⅱ**12'26 0°02'48 -1183 May 16 j 10:30 30°RML behind sun begin -1189 Jun 09 j 16:17 6°**Ⅱ**07'49 -1183 May 31 j 22:19 28° ML04'03 0°19'50 opposition

-1189 Jun 10 j 08:55

behind sun end

6°**I**17′03

min. Earth dist.

-1183 Jun 01 j 19:38 27°M 57'12 4.15935 AU

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1183 in astronomical counting style is the year 1184 BCE in historical counting style. direct -1183 Jul 31 j 16:57 23°M 08'42 conjunction -1177 Jun 14 j 21:59 10° II 57'38 0°03'19 -1183 Oct 01 j 03:44 28° ML39'48 minimum elong -1177 Jun 14 j 22:00 10°**I** 57'39 0°03'20 desc. node -1183 Oct 08 j 21:30 -1177 Jun 14 j 13:44 10°**Д**53'04 0°×7 behind sun begin -1183 Dec 03 j 15:02 11° ₹ 53'43 -1177 Jun 15 j 06:15 11°**Ⅲ**02'13 behind sun end evening set -1177 Jun 15 j 20:50 11°**Ⅲ**10'21 max. Earth dist. 6.27476 AU -1177 Jun 28 ј 13:10 13°**Д**59'12 -1183 Dec 16 j 09:02 14° ₹753'58 0°-8'-29 conjunction morning rise -1183 Dec 16 j 09:01 14° \$\frac{7}{53}\$'57 -1177 Sep 26 j 06:59 minimum elong 0°08'31 0.ಎ 1°5645'48 -1183 Dec 16 j 01:58 14° ₹ 49'49 -1177 Oct 29 j 20:08 behind sun begin retrograde behind sun end -1183 Dec 16 j 16:04 14° ₹ 58'06 -1177 Dec 02 j 03:14 30°RⅡ max. Earth dist. -1183 Dec 15 j 14:24 14° ₹ 42'58 6.09913 AU opposition -1177 Dec 28 j 12:39 26°**Ⅱ**46'43 0°34'17 morning rise -1183 Dec 29 j 04:35 17° ₹ 55'13 min. Earth dist. -1177 Dec 28 j 06:17 26°**Ⅱ**48'50 4.33056 AU -1176 Feb 27 j 11:29 21°**Д**43'41 -1182 Feb 23 j 08:00 0°ರ direct -1176 May 16 j 21:07 retrograde -1182 May 07 j 14:06 7°る29'41 0ಂಣ opposition -1182 Jul 07 j 06:09 2°る32'03 0°-45'-27 evening set -1176 Jul 03 j 19:25 9°543'57 min. Earth dist. -1182 Jul 07 j 09:03 2°**る**31'06 4.04617 AU -1182 Jul 27 j 16:06 30°R 🗷 conjunction -1176 Jul 17 j 05:06 12°539'19 0°42'02 direct -1182 Sep 04 j 15:58 27° ₹38'31 minimum elong -1176 Jul 17 j 05:04 12°539'18 0°42'03 -1182 Oct 12 j 23:46 0°궁 max. Earth dist. -1176 Jul 17 j 01:41 12°537'27 6.37672 AU evening set -1181 Jan 07 j 07:36 16°る52'22 morning rise -1176 Jul 30 j 12:00 15°533'13 -1176 Oct 17 j 16:46 $0^{\circ}\Omega$ conjunction -1181 Jan 20 j 07:34 19°る59'12 0°-49'-17 retrograde -1176 Nov 28 j 10:04 2°**Ω**38′56 minimum elong -1181 Jan 20 j 07:32 19°る59'10 0°49'19 -1175 Jan 09 i 08:46 30° R 55 max. Earth dist. -1181 Jan 20 j 18:30 20°る05'45 6.00708 AU opposition -1175 Jan 27 j 11:50 27°543'34 1°22'28 morning rise -1181 Feb 02 j 10:13 23°る07'36 min. Earth dist. -1175 Jan 27 j 21:58 27°540'15 4.40927 AU -1181 Mar 04 i 04:30 0°≈ direct -1175 Mar 30 j 12:45 22°5540'15 -1181 Jun 14 j 08:19 13°≈28'16 -1175 Jun 13 j 13:49 retrograde $0^{\circ}\Omega$ opposition -1181 Aug 13 j 12:43 -1175 Aug 04 j 19:41 $10^{\circ}\Omega$ 24'23 8°≈26'43 -1°-36'-24 evening set -1181 Aug 12 j 19:33 min. Earth dist. 8°**≈**32'27 3.98583 AU -1181 Oct 10 j 19:35 -1175 Aug 17 j 20:44 13° Ω 14'13 1°07'51 direct 3°≈33'10 conjunction -1180 Jan 08 j 16:54 15°≈ -1175 Aug 17 j 20:42 13° Ω 14'12 1°07'51 minimum elong -1180 Feb 12 j 18:31 23°≈02'48 -1175 Aug 16 j 17:47 12°**Ω**59'33 6.42540 AU max. Earth dist. evening set -1175 Aug 25 j 23:12 15°**Ω** -1180 Feb 26 j 01:45 26°≈13'56 -1°-12'-21 conjunction -1175 Aug 30 j 18:35 16°**Ω**02'31 morning rise -1180 Feb 26 j 01:44 26°≈13'55 1°12'22 -1175 Nov 14 j 21:47 minimum elong 0°m -1180 Feb 27 j 14:42 26°≈36'06 5.98293 AU -1175 Dec 28 j 21:23 2° m 53'39 max. Earth dist. retrograde -1180 Mar 10 j 12:26 29°≈26'47 -1174 Feb 11 j 10:12 30°RΩ morning rise -1180 Mar 12 j 20:23 0°**米** -1174 Feb 27 j 08:13 $28^{\circ}\Omega$ 00'59 $1^{\circ}47'09$ opposition retrograde -1180 Jul 20 j 15:58 19° **∺** 54'06 min. Earth dist. -1174 Feb 28 j 09:26 27° **Ω**52'53 4.42618 AU -1180 Sep 17 j 05:01 14°¥59'55 4.00213 AU direct -1174 May 01 j 00:30 22°**Ω**58'40 min. Earth dist. -1180 Sep 18 j 11:40 14° ¥ 49'30 -1°-50'-14 -1174 Jul 13 j 08:54 0° M opposition -1180 Nov 15 j 09:27 9°**₩**53'51 evening set -1174 Sep 04 j 19:54 10° Mp 40'27 direct -1179 Mar 21 j 01:04 29° **米** 17'40 max. Earth dist. -1174 Sep 15 j 18:17 13° Mp 04'06 6.40797 AU evening set -1179 Mar 24 j 01:19 $0^{\circ}\Upsilon$ -1174 Sep 17 j 13:50 13° Mp 28'02 1°14'48 conjunction -1179 Apr 03 j 15:48 2°**Y**29'39 -1°-7'-34 -1174 Sep 17 j 13:51 13° m/28'02 conjunction minimum elong 2°**Υ**29'40 -1174 Sep 30 i 05:17 16° m 14'27 minimum elong -1179 Apr 03 i 15:51 1°07'34 morning rise 2°**Υ**59'52 max. Earth dist. -1179 Apr 05 i 19:10 6.03731 AU -1174 Dec 12 i 17:48 -1173 Jan 29 i 02:52 morning rise -1179 Apr 17 j 08:53 5°**Y**42'41 retrograde 3°**₽**18'31 retrograde -1179 Aug 25 i 11:22 25° γ'31'58 -1173 Mar 18 j 11:28 30°R M -1179 Oct 23 j 23:44 20° Υ 26'55 -1°-21'-57 -1173 Mar 30 j 21:42 28° m 26'51 1°42'48 opposition opposition min. Earth dist. -1179 Oct 22 j 16:45 20° Υ 37'29 4.08849 AU min. Earth dist. -1173 Apr 01 j 07:06 28° Mp 16'12 4.37616 AU -1179 Dec 21 j 11:09 15° Υ 28'09 direct -1173 Jun 01 j 12:42 23° m 26'26 direct -1178 Apr 06 j 22:37 -1173 Aug 10 j 12:28 0°8 0∘⊽ -1178 Apr 26 j 20:37 4°**8**27'26 evening set -1173 Oct 05 j 15:23 11° \alpha 20'07 evening set max. Earth dist. -1173 Oct 16 j 07:42 13°**△**43'24 6.32871 AU conjunction -1178 May 10 j 15:12 7°**8**36'12 0°-38'-2 -1178 May 10 j 15:14 minimum elong 7°**8**36'13 0°38'02 conjunction -1173 Oct 18 j 06:00 14°**£**09'23 1°00'57 -1178 May 12 j 11:50 8°**8**01'43 6.14813 AU -1173 Oct 18 j 06:02 14°**£**09'24 1°00'56 max. Earth dist. minimum elong -1178 May 24 j 10:25 10°**8**45'02 -1173 Oct 30 j 18:56 16° **2**58'05 morning rise morning rise -1178 Jun 12 j 12:07 15°8 -1172 Jan 04 j 21:50 0°M -1172 Mar 01 j 21:15 retrograde -1178 Sep 28 j 00:49 29°**8**31'47 retrograde 4°M40'26 opposition -1178 Nov 26 j 13:53 24°**8**28'58 0°-26'-27 -1172 Apr 30 j 07:51 30°**₹**Ω min. Earth dist. -1178 Nov 25 j 15:12 24°**8**36'39 4.21175 AU opposition -1172 May 01 j 21:06 29°**△**48'09 1°08'46 direct -1177 Jan 25 j 03:45 19°**8**27'30 min. Earth dist. -1172 May 03 j 05:09 29°**♀**37'57 4.27189 AU -1177 Apr 24 j 20:46 Π $^{\circ}$ 0 direct -1172 Jul 02 j 17:56 24°**♀**50'24 -1177 May 15 j 03:17 4°**I**11'34 -1172 Sep 01 j 02:57 asc. node -1177 Jun 01 j 05:27 7°**I**55′10 -1172 Nov 05 j 03:39 13°ML08'20 evening set evening set

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 21 Attention, astronomical year style is used: The year -1172 in astronomical counting style is the year 1173 BCE in historical counting style.

Attention, astronom	nical year style is used: T	he year -1172	in astronomical co		1173 BCE in historical	counting style.	
	-1172 Nov 13 j 06:01			conjunction	-1166 May 15 j 18:52		
max. Earth dist.	-1172 Nov 16 j 04:13	15°M40'30	6.20819 AU	minimum elong	-1166 May 15 j 18:54		
				max. Earth dist.	-1166 May 17 j 13:24		6.16365 AU
conjunction	-1172 Nov 17 j 18:33		0°28'35		-1166 May 26 j 08:03		
minimum elong	-1172 Nov 17 j 18:35		0°28'34	morning rise	-1166 May 29 j 13:55		
morning rise	-1172 Nov 30 j 09:38				-1166 Aug 09 j 17:58	0°II	
	-1171 Jan 21 j 11:51	0° ✓ 7		retrograde	-1166 Oct 02 j 17:14	4° Ⅱ 22'04	
retrograde	-1171 Apr 05 j 19:11	7°×737'32	0011110	· Patra	-1166 Nov 26 j 05:53		4.00001 4.11
opposition	-1171 Jun 05 j 17:06	2° 🖈 42'57	0°11'10	min. Earth dist.	-1166 Nov 30 j 09:26		
min. Earth dist.	-1171 Jun 06 j 13:29	2° ∡ 736′23	4.14252 AU	opposition	-1166 Dec 01 j 05:48		0°-1/'-32
J: 4	-1171 Jun 28 j 02:22			direct	-1165 Jan 30 j 01:06		
direct desc. node	-1171 Aug 05 j 08:18 -1171 Aug 13 j 02:01			asc. node	-1165 Mar 23 j 14:21 -1165 Apr 03 j 08:01	0° Ⅱ	
desc. Hode	-1171 Aug 13 j 02:01 -1171 Sep 12 j 00:16			evening set	-1165 Jun 06 j 03:19		
evening set	-1171 Sep 12 j 00:10 -1171 Dec 08 j 03:59			evening set	-1103 Juli 00 J 03.19	12 114033	
evening set	-11/1 Dec 00 j 03.37	10 × 3/21		conjunction	-1165 Jun 19 j 19:12	15°π42'22	0°09'19
conjunction	-1171 Dec 20 j 22:49	19° √ 38'39	0°-14'-24	minimum elong	-1165 Jun 19 j 19:12		
minimum elong	-1171 Dec 20 j 22:48		0°14'25	behind sun begin	-1165 Jun 19 j 12:18		0 0) 20
behind sun begin	-1171 Dec 20 j 18:57		0 1123	behind sun end	-1165 Jun 20 j 02:06		
behind sun end	-1171 Dec 21 j 02:39			max. Earth dist.	-1165 Jun 20 j 15:58		6.29177 AU
max. Earth dist.	-		6.08200 AU	morning rise	-1165 Jul 03 j 09:19		0.231,7110
morning rise	-1170 Jan 02 j 19:10				-1165 Aug 28 j 11:17	0ಂತಿ	
	-1170 Feb 04 j 00:01	0°ප		retrograde	-1165 Nov 03 j 04:30	6°521'38	
retrograde	-1170 May 12 j 16:10			opposition	-1164 Jan 01 j 23:40	1°522'59	0°42'16
opposition	-1170 Jul 12 j 06:08		0°-53'-44	min. Earth dist.	-1164 Jan 01 j 18:33	1°524'41	4.34593 AU
min. Earth dist.	-1170 Jul 12 j 06:53		4.03039 AU		-1164 Jan 12 j 13:08	30°R∏	
direct	-1170 Sep 09 j 11:00			direct	-1164 Mar 03 j 01:55		
evening set	-1169 Jan 12 j 04:22				-1164 Apr 22 j 20:58	0ಂತಾ	
•	v			evening set	-1164 Jul 08 j 10:53	14°516'20	
conjunction	-1169 Jan 25 j 05:12	24° る 59'27	0°-53'-44				
minimum elong	-1169 Jan 25 j 05:09	24° る 59'25	0°53'46	conjunction	-1164 Jul 21 j 19:16	17°510'41	0°46'41
max. Earth dist.	-1169 Jan 25 j 18:04	25° る 07'12	5.99400 AU	minimum elong	-1164 Jul 21 j 19:14	17° © 10'39	0°46'42
morning rise	-1169 Feb 07 j 09:07	28° る 08'58		max. Earth dist.	-1164 Jul 21 j 11:52	17° 5 06'39	6.38894 AU
	-1169 Feb 15 j 04:09	0° ≈		morning rise	-1164 Aug 04 j 00:53	20° © 03'32	
	-1169 May 01 j 18:45	15° ≈			-1164 Sep 22 j 11:03	$0^{\circ}\Omega$	
retrograde	-1169 Jun 19 j 12:02	18° ≈ 35'43		retrograde	-1164 Dec 02 j 18:19	7° Ω 04'53	
	-1169 Aug 07 j 17:58	15°R ≈		opposition	-1163 Jan 31 j 20:50	2° Ω 09'56	1°27'35
opposition	-1169 Aug 18 j 15:25			min. Earth dist.	-1163 Feb 01 j 10:00		4.41742 AU
min. Earth dist.	-1169 Aug 17 j 19:36	13° ≈ 40′17	3.97704 AU		-1163 Feb 18 j 01:32		
direct	-1169 Oct 15 j 18:53	8° ≈ 39'53		direct	-1163 Apr 04 j 01:50		
	-1169 Dec 18 j 21:31				-1163 May 19 j 06:54	0 ° Ω	
evening set	-1168 Feb 17 j 21:47			evening set	-1163 Aug 09 j 06:06		
	-1168 Feb 25 j 09:17	0° ∀			-1163 Aug 10 j 02:38		
	116036 00:0605	10)/0.406	10 101 00	max. Earth dist.	-1163 Aug 20 j 23:36	17° &2 21'36	6.42849 AU
conjunction	-1168 Mar 02 j 06:25		-1°-13'-20			. = . 0	
minimum elong	-1168 Mar 02 j 06:24	1° ¥ 24'36	1°13'22	conjunction	-1163 Aug 22 j 06:00		1°10'03
max. Earth dist.	-1168 Mar 03 j 23:33	1°) 49'16	5.97938 AU	minimum elong			1°10'04
morning rise	-1168 Mar 15 j 18:07	4° ¥ 38′06		morning rise	-1163 Sep 04 j 02:46		
retrograde	-1168 Jul 25 j 20:57		4.00426 ATT	. 1	-1163 Oct 21 j 14:05	0° Mp	
min. Earth dist.	-1168 Sep 22 j 06:37	20° ∺ 10'58 20° ∺ 00'26	4.00426 AU -1°-48'-34	retrograde	-1162 Jan 02 j 05:20	7° Mp 16'45	1°48'20
opposition	-1168 Sep 23 j 13:34		-1*-48*-34	opposition	-1162 Mar 03 j 17:47	2° Mp 24'15	
direct	-1168 Nov 20 j 12:09 -1167 Mar 06 j 21:01	15° ¥ 04'23 0° Ƴ		min. Earth dist.	-1162 Mar 04 j 20:18 -1162 Mar 23 j 07:19	2°Mp15'44 30°R Ω	4.42423 AU
evening set	-1167 Mar 26 j 06:58	4° Υ 27'54		direct	-1162 May 05 j 10:32		
evening set	-110/ Wai 20 J 00.38	4 12/34		direct	-1162 May 03 j 10:32 -1162 Jun 17 j 14:52	0°m	
conjunction	-1167 Apr 08 j 22:36	7° Ƴ 39'57	-1°-4'-35	evening set	-1162 Jun 1/ j 14:32 -1162 Sep 09 j 04:10		
minimum elong	-1167 Apr 08 j 22:39	7° Υ 39'59	1°04'35	max. Earth dist.	-1162 Sep 00 j 04:10		6.40105 ATI
max. Earth dist.	-1167 Apr 08 j 22:39 -1167 Apr 11 j 02:54	8° Υ 10'38	6.04485 AU	max. Durin dist.	1102 Dep 20 J 01.32	וידיו ∠יעויי יו	0. 10103 AU
morning rise	-1167 Apr 11 j 02:34 -1167 Apr 22 j 16:34		5.01105710	conjunction	-1162 Sep 21 j 21:28	17° m 51'58	1°14'05
	-1167 Apr 22 j 10:34 -1167 Aug 11 j 05:35	0° 8		minimum elong	-1162 Sep 21 j 21:28	17° mp 51'59	1°14'05
retrograde	-1167 Aug 30 j 08:43	0° 8 36'05		morning rise	-1162 Oct 04 j 12:10	-	
	-1167 Sep 18 j 08:29				-1162 Nov 19 j 04:12	0° ರ	
opposition	-1167 Oct 28 j 21:11	•	-1°-15'-8	retrograde	-1162 Nov 19 j 04:12 -1161 Feb 02 j 14:50	ი — 7° ჲ 46'10	
min. Earth dist.	-1167 Oct 27 j 13:23		4.10053 AU	opposition	-1161 Apr 04 j 10:49	2° £ 54'33	1°39'42
direct	-1167 Dec 26 j 10:18			min. Earth dist.	-1161 Apr 05 j 21:02	2° - 243'40	4.36461 AU
	-1166 Mar 18 j 23:27	0°8			-1161 Apr 28 j 21:05		
evening set	-1166 May 02 j 00:12			direct	-1161 Jun 06 j 00:20		
S	J J				- J 		

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 22 Attention, astronomical year style is used: The year -1161 in astronomical counting style is the year 1162 BCE in historical counting style.

Attention, astronomi	ical year style is used: Th	ne year -1161	in astronomical cou	nting style is the year	1162 BCE in historical of	counting style.	
	-1161 Jul 14 j 00:04	0∘ ⊽		conjunction	-1155 Apr 14 j 05:56	12° Y ′50′48	-1°-1'-9
evening set	-1161 Oct 10 j 00:37	15° ≏ 50'56		minimum elong	-1155 Apr 14 j 05:59	12° Y 50'50	1°01'10
max. Earth dist.	-1161 Oct 20 j 15:26	18° ≏ 13'58	6.31333 AU	max. Earth dist.	-1155 Apr 16 j 09:42	13° Y 21'03	6.06209 AU
				morning rise	-1155 Apr 28 j 00:19	16° Y ′03′12	
conjunction	-1161 Oct 22 j 14:56	18° ≏ 40'44	0°57'21		-1155 Jul 04 j 12:28	0°8	
minimum elong	-1161 Oct 22 j 14:59	18° ≏ 40'45	0°57'22	retrograde	-1155 Sep 04 j 04:50	5° 8 36'36	
morning rise	-1161 Nov 04 j 04:07	21° ≏ 30′08		min. Earth dist.	-1155 Nov 01 j 11:03	0° 8 42'03	4.12075 AU
	-1161 Dec 14 j 03:09	0°M		opposition	-1155 Nov 02 j 17:07	0° 8 31'47	-1°-7'-54
retrograde	-1160 Mar 06 j 16:53	9° M 19′53			-1155 Nov 06 j 14:24	30° ₹ Υ	
opposition	-1160 May 06 j 16:19	4° ጤ 27'21	1°01'47	direct	-1155 Dec 31 j 10:58	25° Y 32'07	
min. Earth dist.	-1160 May 07 j 23:33	4° M L17'23	4.25350 AU		-1154 Feb 23 j 16:55	9° 8	
	-1160 Jun 19 j 09:17	30° ₹ Ω		evening set	-1154 May 07 j 01:10	14° 8 22'17	
direct	-1160 Jul 07 j 09:47	29° ≏ 29'57			-1154 May 09 j 20:01	15° 8	
	-1160 Jul 25 j 10:10	0° M ₊					
	-1160 Oct 28 j 01:18	15°M		conjunction	-1154 May 20 j 19:52	17° 8 29'27	0°-26'-48
evening set	-1160 Nov 09 j 16:56	17°M52'29		minimum elong	-1154 May 20 j 19:54	17° 8 29'28	0°26'48
max. Earth dist.	-1160 Nov 20 j 21:24	20°M27'32	6.18854 AU	max. Earth dist.	-1154 May 22 j 13:07		6.18521 AU
	, and the second			morning rise	-1154 Jun 03 j 14:25		
conjunction	-1160 Nov 22 j 08:24	20°M47'49	0°22'52	C	-1154 Jul 17 j 21:46	Π°	
minimum elong	-1160 Nov 22 j 08:25			retrograde	-1154 Oct 07 j 04:03	9° Ⅱ 04'07	
morning rise	-1160 Dec 04 j 23:56			opposition	-1154 Dec 05 j 18:22	4° Ⅱ 02'08	0°-8'-49
S	-1159 Jan 02 j 01:02	0° ∡ ¹		min. Earth dist.	-1154 Dec 04 j 23:22	4° Ⅱ 08'33	4.24959 AU
retrograde	,	12° ∡ ³33'22			-1153 Jan 09 j 19:54		
opposition	-1159 Jun 10 j 19:03	7° ∡ ³38'27	0°01'52	asc. node	-1153 Jan 31 j 11:26		
min. Earth dist.	-1159 Jun 11 j 13:15	7° ∡ ³32'35	4.12316 AU	direct	-1153 Feb 03 j 17:29		
desc. node	-1159 Jun 22 j 04:45	6° ∡ 11'30	2510110		-1153 Mar 01 j 00:05	0°II	
direct	-1159 Aug 10 j 05:04	2° × ⁷ 43'44		evening set	-1153 Jun 10 j 21:10		
evening set	-1159 Dec 13 j 00:28			evening set	1133 Jun 10 j 21.10	17 21730	
evening set	1137 Dec 13 J 00.20	21 × 3031		conjunction	-1153 Jun 24 j 12:03	20°∏18'15	0°15'03
conjunction	-1159 Dec 25 j 19:54	24° √ 40'53	0°-20'-36	minimum elong	-1153 Jun 24 j 12:01		
minimum elong	-1159 Dec 25 j 19:52			behind sun begin	-1153 Jun 24 j 09:31		0 13 04
max. Earth dist.	-1159 Dec 25 j 07:06			behind sun end	-1153 Jun 24 j 14:32		
morning rise	-1158 Jan 07 j 17:24		0.00470 AC	max. Earth dist.	-1153 Jun 25 j 03:17		6.31006 AII
morning risc	-1158 Jan 17 j 08:27	0°る		morning rise	-1153 Jul 08 j 01:13		0.51000 AC
retrograde	-1158 May 18 j 00:36			morning rise	-1153 Jul 08 j 01:13	0°95	
opposition	-1158 Jul 17 j 13:08		10 21 0	retrograde	-1153 Aug 08 j 18.20 -1153 Nov 07 j 11:57		
min. Earth dist.	-1158 Jul 17 j 10:09			opposition	-1153 Nov 07 j 11.37 -1152 Jan 06 j 07:38		0°49'44
	-1158 Sep 14 j 12:59		4.01/10 AU				
direct	-1157 Jan 17 j 07:55			min. Earth dist.	-1152 Jan 06 j 06:13 -1152 Mar 07 j 15:17		4.36037 AU
evening set				direct	-		
	-1157 Jan 29 j 07:32	0° ≈		evening set	-1152 Jul 12 j 22:32	18 2041 09	
conjunction	-1157 Jan 30 j 09:58	0°≈15'55	0°-58'-4	conjunction	-1152 Jul 26 j 05:53	2196224140	0°50'56
3	-		0°58'05		-1152 Jul 26 j 05:50		0°50'56
minimum elong max. Earth dist.	-1157 Jan 30 j 09:55	0°≈15'53	5.98618 AU	minimum elong max. Earth dist.	-1152 Jul 25 j 19:17		6.39834 AU
morning rise	-1157 Jan 31 j 04:59 -1157 Feb 12 j 14:52	0°≈27'22 3°≈26'16	3.96016 AU	morning rise	-1152 Jul 25 j 19:17 -1152 Aug 08 j 10:06		0.39634 AU
morning rise	3			morning rise			
	-1157 Apr 05 j 16:05	15°≈			-1152 Sep 03 j 19:50	0°Ω	
retrograde	-1157 Jun 24 j 22:43	23°≈56'22	-1°-44'-35	retrograde	-1152 Dec 06 j 22:17	11° Ω 25'00	1922105
opposition	-1157 Aug 23 j 23:31	18°≈53'50		opposition	-1151 Feb 05 j 03:09	6° Ω 30'28	1°32'05
min. Earth dist.	-1157 Aug 23 j 01:51		3.97602 AU	min. Earth dist.	-1151 Feb 05 j 18:00	6° Ω 25'38	4.42149 AU
r.	-1157 Sep 26 j 17:38	15°R≈		direct	-1151 Apr 08 j 09:49	1° Ω 27'16	
direct	-1157 Oct 21 j 01:11	13°≈59'57			-1151 Jul 24 j 23:55	15° Ω	
	-1157 Nov 14 j 07:21	15° ≈		evening set	-1151 Aug 13 j 14:14	19° Ω 09'09	6 4 9 600 4 X X
	-1156 Feb 08 j 03:53	0°) {		max. Earth dist.	-1151 Aug 25 j 03:23	21° 3 (39'40	6.42680 AU
evening set	-1156 Feb 23 j 05:34	3°) (32′43			1151 1 26:12.01	210 0 50100	1011150
	115636 05:15:10	601/4440	10 101 50	conjunction	-1151 Aug 26 j 13:01		1°11'50
conjunction	-1156 Mar 07 j 15:10	6°) 44'48	-1°-13'-50	minimum elong	-1151 Aug 26 j 12:59	21° Ω 57'59	1°11'50
minimum elong	-1156 Mar 07 j 15:10	6°) 44′48	1°13'52	morning rise	-1151 Sep 08 j 08:49	24° Ω 45'24	
max. Earth dist.	-1156 Mar 09 j 11:09	7°) (11'07	5.98510 AU		-1151 Oct 03 j 04:53	0° Mp	
morning rise	-1156 Mar 21 j 04:02	9°) €58'30		retrograde	-1150 Jan 06 j 13:41		1040176
	-1156 Jul 16 j 08:55	0° Υ		opposition	-1150 Mar 08 j 02:30	6° Mp 45'31	1°48'56
retrograde	-1156 Jul 31 j 00:40	0° Υ 21'11		min. Earth dist.	-1150 Mar 09 j 07:37	6° TQ 36'12	4.41699 AU
	-1156 Aug 14 j 14:12	30° ₹		direct	-1150 May 09 j 20:31	1° Mp 43'36	
min. Earth dist.	-1156 Sep 27 j 08:03	25° ∺ 27'22	4.01635 AU	evening set	-1150 Sep 13 j 11:30	19° m 28'03	
opposition	-1156 Sep 28 j 17:01	25° ¥ 16′09	-1°-46'-2	max. Earth dist.	-1150 Sep 24 j 06:04	21° Mp 50'21	6.38866 AU
direct	-1156 Nov 25 j 15:54	20°) 19'42					
	-1155 Feb 15 j 20:07	0° Υ		conjunction	-1150 Sep 26 j 04:14		1°12'57
evening set	-1155 Mar 31 j 13:39	9° Y ′39'14		minimum elong	-1150 Sep 26 j 04:15	22° Mp 15'51	1°12'56

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 23

	ical year style is used: Th		•	//		, I C	. 23
morning rise	-1150 Oct 08 j 18:37	-		evening set	-1143 Apr 05 j 18:25		
C	-1150 Oct 31 j 20:36	0∘ <u>ଫ</u>		C	1 3		
retrograde	-1149 Feb 07 j 03:56	12° ≏ 16′03		conjunction	-1143 Apr 19 j 11:26	17° Ƴ 55'48	0°-57'-19
opposition	-1149 Apr 09 j 00:47	7° ≏ 24'21	1°36'02	minimum elong	-1143 Apr 19 j 11:29		0°57'20
min. Earth dist.	-1149 Apr 10 j 10:45	7° ₽ 13'32	4.34792 AU	max. Earth dist.	-1143 Apr 21 j 15:43	18° Y ′26′13	6.07982 AU
direct	-1149 Jun 10 j 11:35	2° ₽ 24'38		morning rise	-1143 May 03 j 06:04		
evening set	-1149 Oct 14 j 10:42	20° ≏ 25'21			-1143 Jun 12 j 16:53	9° 8	
max. Earth dist.	-1149 Oct 25 j 03:54	22° ≏ 50′20	6.29385 AU	retrograde	-1143 Sep 08 j 22:33	10° 8 31'14	
				min. Earth dist.	-1143 Nov 06 j 05:44	5° 8 36'42	4.14014 AU
conjunction	-1149 Oct 27 j 01:07	23° ≏ 15'56	0°53'23	opposition	-1143 Nov 07 j 10:59	5° 8 26'45	-1°00'-20
minimum elong	-1149 Oct 27 j 01:09	23° ≏ 15'57	0°53'23	direct	-1142 Jan 05 j 07:48	0° 8 26'44	
morning rise	-1149 Nov 08 j 14:19	26° ≏ 06′10			-1142 Apr 23 j 01:07		
	-1149 Nov 26 j 04:24	0°M₊		evening set	-1142 May 12 j 00:42	19° 8 11'43	
retrograde	-1148 Mar 11 j 14:18	14°M04'37					
opposition	-1148 May 11 j 13:29	9° M .11′53	0°54'17	conjunction	-1142 May 25 j 19:00	22° 8 17'55	0°-21'-2
min. Earth dist.	-1148 May 12 j 19:45	9° M ∙02'14	4.23249 AU	minimum elong	-1142 May 25 j 19:02		0°21'03
direct	-1148 Jul 12 j 03:16	4° M 14′56		max. Earth dist.	-1142 May 27 j 07:27		6.20467 AU
	-1148 Oct 10 j 09:49	15° M ₊		morning rise	-1142 Jun 08 j 13:13		
evening set	-1148 Nov 14 j 08:42	22°M42'45			-1142 Jun 29 j 12:36	$\Pi^{\circ}0$	
max. Earth dist.	-1148 Nov 25 j 15:12	25° M 19'46	6.16790 AU	retrograde	-1142 Oct 11 j 14:54	13° Ⅱ 42'32	
				opposition	-1142 Dec 10 j 05:57	8° Ⅱ 41′04	0°00'-9
conjunction	-1148 Nov 27 j 00:28		0°16'54	min. Earth dist.	-1142 Dec 09 j 13:51	8° Ⅱ 46'30	4.26745 AU
minimum elong	-1148 Nov 27 j 00:29	25°M39'08	0°16'53	asc. node	-1142 Dec 11 j 08:44	8° Ⅲ 32′03	
morning rise	-1148 Dec 09 j 16:53	28°M36'02		direct	-1141 Feb 08 j 10:26	3° Ⅲ 38'42	
	-1148 Dec 15 j 18:35	0° ∡ ¹		evening set	-1141 Jun 15 j 14:23	21° Ⅱ 52'37	
retrograde	-1147 Apr 16 j 02:46	17° ∡ ³35'37					
desc. node	-1147 Apr 30 j 20:38	17° ∡ 15′10		conjunction	-1141 Jun 29 j 04:33	24° Ⅱ 51′56	0°20'41
opposition	-1147 Jun 15 j 23:18	12° ∡ ¹40′10	0°-7'-36	minimum elong	-1141 Jun 29 j 04:31	24° Ⅱ 51'55	0°20'42
min. Earth dist.	-1147 Jun 16 j 13:46	12° ∡ ³35'30	4.10463 AU	max. Earth dist.	-1141 Jun 29 j 17:01	24° Ⅱ 58'48	6.32511 AU
direct	-1147 Aug 15 j 03:52	7° ∡ ¹45'44		morning rise	-1141 Jul 12 j 16:25	27° Ⅱ 50′01	
evening set	-1147 Dec 17 j 23:00	26° ∡ ¹45′10			-1141 Jul 22 j 16:03	0 \circ \odot	
				retrograde	-1141 Nov 11 j 18:12	15° © 15'43	
conjunction	-1147 Dec 30 j 19:23	29° ∡ ¹48'32	0°-26'-44	opposition	-1140 Jan 10 j 15:28	10° © 18'13	0°56'55
minimum elong	-1147 Dec 30 j 19:22	29° ∡ ¹48'31	0°26'46	min. Earth dist.	-1140 Jan 10 j 15:58	10°9518'02	4.37170 AU
max. Earth dist.	-1147 Dec 30 j 12:48	29° ∡ ¹44'37	6.05010 AU	direct	-1140 Mar 12 j 02:19	5° © 14'53	
	-1147 Dec 31 j 14:37	0° ප		evening set	-1140 Jul 17 j 10:42	23° 5 06'19	
morning rise	-1146 Jan 12 j 17:42	2° る 53'11					
retrograde	-1146 May 23 j 11:16	22° る 52'18		conjunction	-1140 Jul 30 j 16:41	25° © 59'03	0°54'54
opposition	-1146 Jul 22 j 21:35	17° る 53'04	-1°-10'-9	minimum elong	-1140 Jul 30 j 16:39	25° © 59'01	0°54'55
min. Earth dist.	-1146 Jul 22 j 16:06	17° る 54'52	4.00799 AU	max. Earth dist.	-1140 Jul 30 j 00:51	25° © 50'25	6.40495 AU
direct	-1146 Sep 19 j 18:07	12° る 59'49		morning rise	-1140 Aug 12 j 19:50	28° 9 50'15	
	-1145 Jan 12 j 09:26	0° ≈			-1140 Aug 18 j 05:18	$0^{\circ}\Omega$	
evening set	-1145 Jan 22 j 12:40	2° ≈ 24'24			-1140 Nov 19 j 00:01	15° Ω	
				retrograde	-1140 Dec 11 j 05:56	15° Ω 46'43	
conjunction	-1145 Feb 04 j 15:34	5° ≈ 33'37	-1°-1'-56		-1139 Jan 02 j 09:44	15°R Ω	
minimum elong	-1145 Feb 04 j 15:31	5° ≈ 33'36	1°01'58	opposition	-1139 Feb 09 j 10:54	10° Ω 52'38	1°36'07
max. Earth dist.	-1145 Feb 05 j 14:17	5° ≈ 47'18	5.98306 AU	min. Earth dist.	-1139 Feb 10 j 05:01	10° Ω 46'45	4.42323 AU
morning rise	-1145 Feb 17 j 21:41	8° ≈ 44'35		direct	-1139 Apr 12 j 20:50	5° Ω 49'33	
	-1145 Mar 16 j 19:33	15° ≈			-1139 Jul 07 j 05:42	15° Ω	
retrograde	-1145 Jun 30 j 05:49	29° ≈ 15′24		evening set	-1139 Aug 17 j 23:09	23° Ω 31'40	
min. Earth dist.	-1145 Aug 28 j 05:32	24° ≈ 20'45	3.97951 AU	max. Earth dist.	-1139 Aug 29 j 09:33	26° Ω 00′53	6.42338 AU
opposition	-1145 Aug 29 j 06:26	24° ≈ 12′23	-1°-47'-28				
direct	-1145 Oct 26 j 06:04	19° ≈ 18′13		conjunction	-1139 Aug 30 j 21:04	26° Ω 20′16	1°13'13
	-1144 Jan 20 j 16:00	0°) €		minimum elong	-1139 Aug 30 j 21:03	26° Ω 20′15	1°13'14
evening set	-1144 Feb 28 j 12:44	8°) 49′22		morning rise	-1139 Sep 12 j 15:49	29° Ω 07′25	
					-1139 Sep 16 j 17:01	0° m/y	
conjunction	-1144 Mar 12 j 23:20	12° ₭ 01'28	-1°-13'-44	retrograde	-1138 Jan 10 j 21:51	16° Mp 01'52	
minimum elong	-1144 Mar 12 j 23:21	12° ₭ 01'28	1°13'45	opposition	-1138 Mar 12 j 12:46	11° m)09'51	1°48'56
max. Earth dist.	-1144 Mar 14 j 21:11	12°) €28'48	5.99454 AU	min. Earth dist.	-1138 Mar 13 j 18:14	11° mp 00'25	4.40894 AU
morning rise	-1144 Mar 26 j 13:04	15° ¥ 15′04		direct	-1138 May 14 j 05:34	6° Mp 08′15	
-	-1144 Jun 04 j 22:32	$0^{\circ}\Upsilon$		evening set	-1138 Sep 17 j 20:21		
retrograde	-1144 Aug 05 j 02:31	5° Ƴ 31'45		max. Earth dist.	-1138 Sep 28 j 14:10		6.37662 AU
min. Earth dist.	-1144 Oct 02 j 09:40	0° Υ 37'40	4.03054 AU		÷ *	-	
opposition	-1144 Oct 03 j 18:17	0° Υ 26'32	-1°-42'-42	conjunction	-1138 Sep 30 j 12:29	26° Mp 43'05	1°11'23
	-1144 Oct 07 j 00:10	30° ₹		minimum elong	-1138 Sep 30 j 12:30	26° m 43'06	1°11'23
direct	-1144 Nov 30 j 19:55	25° ¥ 29'37		morning rise	-1138 Oct 13 j 02:27	29° m/30'13	
	-1143 Jan 23 j 11:18	0°Υ		5 ·	-1138 Oct 15 j 08:36	0∘ <u>ಹ</u>	
	J				. J		

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1137 in astronomical counting style is the year 1138 BCE in historical counting style. -1137 Feb 11 i 19:42 16° **2**49'11 opposition -1132 Oct 08 j 15:32 5°Υ28'08 -1°-38'-42 retrograde opposition -1137 Apr 13 j 16:22 11°**2**57'33 -1132 Dec 05 j 18:08 0°Y30'48 1°31'45 direct min. Earth dist. -1137 Apr 15 j 03:03 11°**2**46'31 4.33270 AU -1131 Apr 10 j 19:46 19°**Υ**41'57 evening set -1137 Jun 15 j 01:59 direct 6°**£**58'17 -1131 Apr 24 j 13:07 22°**Y**52'30 0°-53'-12 -1137 Oct 18 j 21:51 25° **2**02'42 evening set conjunction max. Earth dist. -1137 Oct 29 j 15:28 27°**£**28'33 -1131 Apr 24 j 13:10 22°**Υ**52'31 0°53'12 6.27682 AU minimum elong -1131 Apr 26 j 14:17 23°**Y**20'59 max. Earth dist. 6.09578 AU 0°49'04 -1131 May 08 j 08:12 26°**Y**03'37 conjunction -1137 Oct 31 j 12:15 27°**⊆**53'59 morning rise -1137 Oct 31 j 12:17 27°**♀**54'01 minimum elong 0°49'03 -1131 May 25 j 18:18 0° 8 -1137 Nov 09 j 18:09 0°M -1131 Aug 30 j 20:00 15°**8** morning rise -1137 Nov 13 j 01:47 0°ML45'04 retrograde -1131 Sep 13 j 12:26 15°**8**18'40 -1131 Sep 27 j 03:57 15°R8 -1136 Jan 25 j 03:36 15°M -1131 Nov 10 j 22:03 10°**8**23'52 4.15660 AU retrograde -1136 Mar 16 j 11:33 18° ML51'29 min. Earth dist. -1136 May 08 j 09:22 15°RM opposition -1131 Nov 12 j 01:34 10°**8**14'29 0°-52'-36 opposition -1136 May 16 j 11:27 13°ML58'28 0°46'22 direct -1130 Jan 10 j 02:42 5°**8**14'02 min. Earth dist. -1136 May 17 j 14:54 13°M 49'42 4.21496 AU -1130 Apr 04 j 23:52 15°8 direct -1136 Jul 16 j 20:20 9°M01'56 evening set -1130 May 16 j 21:17 23°**8**55'04 -1136 Sep 19 j 13:43 15°M evening set -1136 Nov 19 j 00:24 27° ML33'49 conjunction -1130 May 30 j 15:33 27°**8**00'32 0°-15'-19 -1136 Nov 29 j 11:31 minimum elong -1130 May 30 j 15:34 27°**8**00'33 0°15'19 behind sun begin -1130 May 30 j 13:36 26°859'26 conjunction -1136 Dec 01 i 16:42 0°**х** 31'05 0°10'52 behind sun end -1130 May 30 j 17:33 27°**8**01'39 -1130 Jun 01 j 01:40 27°**8**19'44 minimum elong -1136 Dec 01 i 16:43 0°**х** 31′05 0°10'51 max. Earth dist. 6.22063 AU behind sun begin -1136 Dec 01 i 10:34 0°**х** 27′31 -1130 Jun 12 i 23:21 $\Pi^{\circ}0$ behind sun end -1136 Dec 01 j 22:52 0°**х** 34′40 morning rise -1130 Jun 13 j 09:06 0°**Ⅱ**05′26 -1136 Nov 30 j 12:14 14'27 **ح** -1130 Oct 16 j 00:56 18° II 16'37 max Earth dist 6.15162 AU retrograde -1136 Dec 14 j 09:38 -1130 Oct 22 j 05:50 18° II 12'48 morning rise 3°×728'57 asc. node -1135 Mar 10 j 07:57 19° ₹ 57'45 -1130 Dec 14 j 15:47 13° **II** 15'44 0°08'16 desc. node opposition -1135 Apr 21 j 08:21 22° ₹36'43 -1130 Dec 14 j 01:56 13°**Д**20'23 4.28153 AU retrograde min. Earth dist. -1135 Jun 21 j 02:52 17° ₹ 40'49 0°-16'-56 -1129 Feb 13 j 00:21 8°**Д**13'11 opposition direct -1135 Jun 21 j 15:16 17° **₹** 36'48 4.09094 AU -1129 Jun 20 j 05:59 26°**Ⅲ**24'13 min. Earth dist. evening set -1135 Aug 20 j 03:34 12°**х** 46'41 direct -1129 Jul 03 j 19:05 29°**Ⅲ**22'41 0°26'04 -1135 Dec 15 j 03:21 conjunction 0°₹ -1129 Jul 03 j 19:04 29°**Ⅲ**22'40 0°26'05 -1135 Dec 22 j 20:35 1°**る**49'09 evening set minimum elong -1129 Jul 04 j 02:23 29°П26'42 6.33627 AU max. Earth dist. -1134 Jan 04 j 17:37 4°**ප**53'16 0°-32'-33 -1129 Jul 06 j 14:55 0°ഇ conjunction -1134 Jan 04 j 17:34 -1129 Jul 17 j 06:05 minimum elong 4°る53'14 0°32'35 morning rise 2°919'54 max. Earth dist. -1134 Jan 04 j 14:24 4°る51'21 6.04017 AU retrograde -1129 Nov 16 j 01:24 19°541'03 morning rise -1134 Jan 17 j 16:59 7°**る**58'46 opposition -1128 Jan 14 j 23:09 14°544'03 1°03'39 retrograde -1134 May 28 j 16:19 28°**⋜**02'57 min. Earth dist. -1128 Jan 15 j 02:27 14°9542'57 4.37947 AU opposition -1134 Jul 28 j 02:57 23°정03'09 -1°-17'-22 direct -1128 Mar 16 j 13:48 9°**5**40'38 min. Earth dist. -1134 Jul 27 j 17:34 23°중06'15 4.00312 AU -1128 Jul 21 j 22:04 27°530'53 evening set -1134 Sep 24 j 19:05 18°**⋜**09'55 -1128 Aug 02 j 08:51 direct 0° Ω -1134 Dec 25 j 17:09 max. Earth dist. -1128 Aug 03 j 09:37 0°Ω13'29 6.40884 AU 0°**≈** -1133 Jan 27 j 14:48 evening set 7°≈35'15 -1128 Aug 04 i 03:05 conjunction 0°Ω23'00 0°58'31 -1133 Feb 09 i 18:40 10°≈44'51 -1°-5'-12 conjunction minimum elong -1128 Aug 04 i 03:02 0°**Ω**22'58 0°58'32 -1133 Feb 09 i 18:38 10°≈44'50 1°05'14 minimum elong morning rise -1128 Aug 17 j 04:50 3°**Ω**13'32 max. Earth dist. -1133 Feb 10 j 21:17 11°≈00'52 5.98345 AU -1128 Oct 16 j 18:06 15°Ω -1133 Feb 23 i 01:44 13°≈56'12 retrograde -1128 Dec 15 j 12:00 $20^{\circ}\Omega$ 08'48 morning rise opposition -1133 Feb 27 j 13:04 15°≈ -1127 Feb 13 j 18:51 15° Ω 15'05 1°39'34 -1133 May 11 j 22:58 min. Earth dist. -1127 Feb 14 j 14:01 15° Ω 08'53 4.42330 AU 0°¥ -1133 Jul 05 j 10:35 -1127 Feb 15 j 17:31 15°RΩ retrograde 4°**)**€26'27 -1127 Apr 17 j 05:48 10° **Ω**12'11 -1133 Aug 29 j 19:35 30°R≈ direct min. Earth dist. -1133 Sep 02 j 07:44 29°≈31'41 3.98516 AU -1127 Jun 15 j 16:49 15° Ω -1133 Sep 03 j 09:34 29°≈22'58 -1°-49'-22 -1127 Aug 22 j 08:11 27°**Ω**54'36 opposition evening set direct -1133 Oct 31 j 09:39 24°≈28'26 -1127 Aug 31 j 22:27 0° mb -1133 Dec 29 j 21:16 0°**米** max. Earth dist. -1127 Sep 02 j 14:46 0° Mp 22'02 6.41951 AU -1132 Mar 04 j 16:06 13°¥ 57'26 evening set -1127 Sep 04 j 04:59 0° m 42'56 1°14'11 conjunction -1132 Mar 18 j 03:45 17°**米**09'30 -1°-13'-3 -1127 Sep 04 j 04:58 conjunction minimum elong 0° Mp 42'55 1°14'10 minimum elong -1132 Mar 18 j 03:46 17°**米**09'31 1°13'04 morning rise -1127 Sep 16 j 23:00 3° m 29'54 max. Earth dist. -1132 Mar 20 j 04:16 17° **★** 38'19 6.00479 AU retrograde -1126 Jan 15 j 08:47 20° Mp 26'25 opposition morning rise -1132 Mar 31 j 18:17 20°**米**22'58 -1126 Mar 16 j 23:47 15° m 34'31 1°48'17 -1132 May 13 j 19:55 $0^{\circ}\Upsilon$ min. Earth dist. -1126 Mar 18 j 07:01 15° **m** 24'33 4.40141 AU -1132 Aug 10 j 00:35 10°**Y**33'22 -1126 May 18 j 17:35 10° m 33'10 retrograde direct -1132 Oct 07 j 06:53 5°**Υ**39'16 4.04432 AU -1126 Sep 22 j 04:35 28° m 21'31 min. Earth dist. evening set

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 25 Attention, astronomical year style is used: The year -1126 in astronomical counting style is the year 1127 BCE in historical counting style.

Attention, astronomi	cal year style is used: Th	e year -1126	in astronomical cou	nting style is the year	1127 BCE in historical of	counting style.	
	-1126 Sep 29 j 14:39	0∘ ⊽		conjunction	-1120 Mar 23 j 09:48	22°) 19′56	-1°-11'-48
max. Earth dist.	-1126 Oct 02 j 22:10	0° ₽ 44'09	6.36589 AU	minimum elong	-1120 Mar 23 j 09:49	22°) 19′57	1°11'50
				max. Earth dist.	-1120 Mar 25 j 10:04	22°) € 48′33	6.01191 AU
conjunction	-1126 Oct 04 j 20:22	1° ≏ 09'49	1°09'23	morning rise	-1120 Apr 06 j 01:22	25°) €33′29	
minimum elong	-1126 Oct 04 j 20:23	1° ≏ 09'50	1°09'23		-1120 Apr 25 j 06:44	0 ° Υ	
morning rise	-1126 Oct 17 j 09:57	3° ≏ 57'14		retrograde	-1120 Aug 14 j 23:02	15° Ƴ 38'43	
retrograde	-1125 Feb 16 j 09:11	21° ≏ 21'15		min. Earth dist.	-1120 Oct 12 j 05:17	10° Ƴ 44'40	4.05522 AU
opposition	-1125 Apr 18 j 07:52	16° ≙ 29'27	1°26'52	opposition	-1120 Oct 13 j 14:03	10° Ƴ 33′28	-1°-33'-57
min. Earth dist.	-1125 Apr 19 j 17:04	16° ≏ 18'53	4.31927 AU	direct	-1120 Dec 10 j 18:32	5° Ƴ 35'41	
direct	-1125 Jun 19 j 13:59	11° ≏ 30'31		evening set	-1119 Apr 15 j 23:21	24° Y '44'07	
evening set	-1125 Oct 23 j 08:11	29° ≏ 37'43					
	-1125 Oct 24 j 23:36	0°M₊		conjunction	-1119 Apr 29 j 17:23	27° Y ′54'19	0°-48'-36
max. Earth dist.	-1125 Nov 03 j 03:49	2°ML05'14	6.26170 AU	minimum elong	-1119 Apr 29 j 17:26	27° Y ′54'21	0°48'37
				max. Earth dist.	-1119 May 01 j 18:19	28° Y ′22'34	6.10970 AU
conjunction	-1125 Nov 04 j 22:34	2°M29'36	0°44'27		-1119 May 08 j 19:23	0°8	
minimum elong	-1125 Nov 04 j 22:36	2°M29'38	0°44'26	morning rise	-1119 May 13 j 12:32	1° 8 04'53	
morning rise	-1125 Nov 17 j 12:17	5°ML21'24		Ü	-1119 Jul 21 j 01:00		
Č	-1124 Jan 01 j 19:48			retrograde	-1119 Sep 18 j 07:03		
retrograde	-1124 Mar 21 j 09:52	23°MJ35'11		opposition	-1119 Nov 16 j 18:41		0°-44'-21
opposition	-1124 May 21 j 08:37	18° M .41'51	0°38'11	min. Earth dist.	-1119 Nov 15 j 16:57		4.17198 AU
min. Earth dist.	-1124 May 22 j 11:23	18°ML33'17	4.19876 AU	min. Darm dist.	-1119 Nov 17 j 18:55		, 1, 0 110
min. Darm Gige.	-1124 Jun 23 j 02:44	15°RML	,0,0110	direct	-1118 Jan 14 j 23:55		
direct	-1124 Jul 21 j 14:31	13°M45'39		direct	-1118 Mar 13 j 10:25		
uncet	-1124 Aug 18 j 20:58	15°M		evening set	-1118 May 21 j 20:41		
	-1124 Nov 13 j 10:07	0° ∡ 7		evening set	-1118 May 27 j 11:01	0°II	
	-				-1116 May 27 J 11.01	υд	
evening set	-1124 Nov 23 j 15:09	2°×721'12	C 12572 ATT		1110 I 04: 14:20	10π40124	09 01 20
max. Earth dist.	-1124 Dec 05 j 05:29	2°×'03'51	6.13573 AU	conjunction	-1118 Jun 04 j 14:29	1° Ⅱ 49'34	0°-9'-20
	11017	50 310100	000 4140	minimum elong	-1118 Jun 04 j 14:30	1° Ⅱ 49'35	0°09'19
conjunction	-1124 Dec 06 j 07:55	5°×19'20	0°04'48	behind sun begin	-1118 Jun 04 j 07:33	1° ∏ 45'42	
minimum elong	-1124 Dec 06 j 07:55	5° ∡ 19'20	0°04'46	behind sun end	-1118 Jun 04 j 21:26	1° Ⅱ 53'27	
behind sun begin	-1124 Dec 06 j 00:06	5° ∡ 14'47		max. Earth dist.	-1118 Jun 05 j 21:12	2° Ⅱ 06'48	6.23639 AU
behind sun end	-1124 Dec 06 j 15:45	5° ∡ ¹23'54		morning rise	-1118 Jun 18 j 07:31	4° Ⅱ 53'34	
morning rise	-1124 Dec 19 j 01:38	8° ≯ 18'13		asc. node	-1118 Aug 31 j 08:40		
desc. node	-1123 Jan 18 j 05:42	15° х 06′23		retrograde	-1118 Oct 20 j 12:05		
retrograde	-1123 Apr 26 j 10:04	27° ∡ ³34′05		opposition	-1118 Dec 19 j 04:06		0°16'53
opposition	-1123 Jun 26 j 04:55		0°-26'-8	min. Earth dist.	-1118 Dec 18 j 15:46		4.29668 AU
min. Earth dist.	-1123 Jun 26 j 13:46		4.07672 AU	direct	-1117 Feb 17 j 16:29	12° Ⅱ 54'13	
direct	-1123 Aug 24 j 23:53				-1117 Jun 20 j 05:47	0∘ფ	
	-1123 Nov 28 j 00:04	0°ප		evening set	-1117 Jun 24 j 23:53	1° © 01'57	
evening set	-1123 Dec 27 j 17:21	6°₹49'52					
				conjunction	-1117 Jul 08 j 12:02	3°959'26	0°31'27
conjunction	-1122 Jan 09 j 15:12	9° る 54'50	0°-38'-8	minimum elong	-1117 Jul 08 j 12:00	3° 9 59'25	0°31'28
minimum elong	-1122 Jan 09 j 15:10	9° ⋜ 54'48	0°38'09	max. Earth dist.	-1117 Jul 08 j 17:10	4°902'15	6.35009 AU
max. Earth dist.	-1122 Jan 09 j 16:06	9° る 55'22	6.02881 AU	morning rise	-1117 Jul 21 j 21:39	6° © 55'33	
morning rise	-1122 Jan 22 j 15:30	13° る 01'15		retrograde	-1117 Nov 20 j 10:07	24°9511'11	
	-1122 Apr 18 j 01:00	0° ≈		opposition	-1116 Jan 19 j 08:34	19° © 14'46	1°10'07
retrograde	-1122 Jun 02 j 23:12	3°≈11'24		min. Earth dist.	-1116 Jan 19 j 13:45	19° © 13'04	4.39130 AU
· ·	-1122 Jul 19 j 07:07	30°Ŗ₹		direct	-1116 Mar 21 j 02:59	14° © 11'26	
opposition	-1122 Aug 02 j 07:46	28° ප 11'03	-1°-24'-2		-1116 Jul 17 j 04:28	$0^{\circ}\Omega$	
min. Earth dist.	-1122 Aug 01 j 20:32	28° ප 14'46	3.99580 AU	evening set	-1116 Jul 26 j 10:30	1° Ω 58'53	
direct	-1122 Sep 29 j 21:47	23° る 17'44		- B		30-000	
direct	-1122 Dec 05 j 05:31	0°≈		conjunction	-1116 Aug 08 j 14:07	4° Ω 50'06	1°01'50
evening set	-1121 Feb 01 j 17:06	12°≈45'04		minimum elong	-1116 Aug 08 j 14:04	4°Ω50'05	1°01'51
evening set	-1121 Feb 11 j 02:08	12 ≈ +3 0+		max. Earth dist.	-1116 Aug 07 j 17:01	4° Ω 38'38	6.41776 AU
	-1121 FC0 11 J 02.08	13 &					0.41770 AU
agniunction	1101 Eak 14: 20:00	1500055117	10 7! 50	morning rise	-1116 Aug 21 j 14:44	7° Ω 39'48	
conjunction	-1121 Feb 14 j 22:06	15°≈55'17		natra an- J-	-1116 Sep 26 j 01:51	15° Ω	
minimum elong	-1121 Feb 14 j 22:04	15°≈55'16	1°08'00	retrograde	-1116 Dec 19 j 19:21	24° Ω 32'19	10/12/20
max. Earth dist.	-1121 Feb 16 j 04:53	16°≈13'47	5.98073 AU	opposition	-1115 Feb 18 j 03:29	19° Ω 38'55	1°42'28
morning rise	-1121 Feb 28 j 06:14	19° ≈ 07'12		min. Earth dist.	-1115 Feb 19 j 00:33	19° Ω 32'07	4.42902 AU
	-1121 Apr 17 j 22:53	0° \		T' .	-1115 Apr 05 j 11:08	15°RΩ	
retrograde	-1121 Jul 10 j 15:47	9°) 37′58	2.00552.175	direct	-1115 Apr 21 j 16:53	14° Ω 36'08	
min. Earth dist.	-1121 Sep 07 j 09:28	4°) 43′24	3.98763 AU		-1115 May 08 j 01:07	15° Ω	
opposition	-1121 Sep 08 j 12:50	4°) 34′09	-1°-50'-29		-1115 Aug 16 j 01:24	0° m	
	-1121 Oct 22 j 08:40	30°R≈		evening set	-1115 Aug 26 j 16:03	2° Mp 16'46	
direct	-1121 Nov 05 j 11:13	29° ≈ 39'21		max. Earth dist.	-1115 Sep 06 j 21:41	4° Mp 43'40	6.42155 AU
	-1121 Nov 19 j 14:40	0° \		_			
evening set	-1120 Mar 09 j 21:17	19°) 07'46		conjunction	-1115 Sep 08 j 11:59	5° Mg 04'37	1°14'43

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1115 in astronomical counting style is the year 1116 BCE in historical counting style. -1115 Sep 08 j 11:58 5° m 04'37 1°14'44 retrograde -1109 Jul 15 j 18:21 14° + 46'23 minimum elong 9°**)** 52'04 3.98633 AU -1115 Sep 21 j 04:53 7° m 51'06 min. Earth dist. -1109 Sep 12 j 09:18 morning rise -1114 Jan 19 j 15:27 24° mp 47'56 opposition -1109 Sep 13 j 14:27 9°\(\frac{1}{42'11}\) -1°-50'-41 retrograde -1109 Nov 10 j 11:27 -1114 Mar 21 j 09:14 19° 7 56'08 1°46'59 4°**)**(47'00 direct opposition -1114 Mar 22 j 16:34 19° Mp 46'09 4.39962 AU -1108 Mar 15 j 01:48 24° **₭** 16'17 min. Earth dist. evening set -1114 May 23 j 02:21 direct 14° m 55'04 -1°-9'-58 -1114 Sep 13 j 23:25 -1108 Mar 28 j 15:37 27°**米**28'49 0∘ಹ conjunction 2°**£**43'08 -1108 Mar 28 j 15:40 27° **★**28'50 evening set -1114 Sep 26 j 10:35 minimum elong 1°09'58 -1108 Mar 30 j 18:46 27° **∺** 59'06 max. Earth dist. -1114 Oct 07 j 02:14 5°**£**04'58 6.36028 AU max. Earth dist. 6.01603 AU $0^{\circ}\Upsilon$ -1108 Apr 08 j 07:33 0°**Υ**42'33 conjunction -1114 Oct 09 j 01:40 5°**₽**31'24 1°07'02 morning rise -1108 Apr 11 j 07:59 -1114 Oct 09 j 01:42 -1108 Aug 20 j 00:03 20°**Y**43′28 minimum elong 5°**£**31'25 1°07'02 retrograde -1114 Oct 21 j 15:02 -1108 Oct 17 j 04:18 15°**Υ**49'13 4.06410 AU morning rise 8°**£**18'55 min. Earth dist. retrograde -1113 Feb 20 j 21:53 25° **△**46'29 opposition -1108 Oct 18 j 12:30 15° Υ 38'13 -1°-28'-28 opposition -1113 Apr 22 j 20:20 20°**♀**54'33 1°21'36 direct -1108 Dec 15 j 19:37 10°**Y**40′00 min. Earth dist. -1113 Apr 24 j 06:26 20°**£**43'42 4.30985 AU evening set -1107 Apr 21 j 03:26 29°**Y**46′09 direct -1113 Jun 24 j 01:29 15°**♀**55'52 -1107 Apr 22 j 03:37 0°8 -1113 Oct 09 j 06:54 0°M evening set -1113 Oct 27 j 14:50 4°ML04'42 conjunction -1107 May 04 j 21:50 2°**8**55'58 0°-43'-37 max. Earth dist. -1113 Nov 07 j 11:21 6°M33'07 6.24926 AU minimum elong -1107 May 04 j 21:53 2°**8**56'00 0°43'38 max. Earth dist. -1107 May 06 j 21:54 3°**8**23'37 6.12260 AU conjunction -1113 Nov 09 i 05:23 6°M57′09 0°39'43 morning rise -1107 May 18 j 17:16 6°806'02 minimum elong -1113 Nov 09 i 05:25 6°M57'10 0°39'43 -1107 Jun 28 j 18:56 15°8 morning rise -1113 Nov 21 j 19:21 9°M49'35 retrograde -1107 Sep 22 j 23:00 25° **8**05'03 -1113 Dec 15 j 02:01 15°M min. Earth dist. -1107 Nov 20 j 10:09 20°**8**10'14 4.18740 AU retrograde -1112 Mar 26 j 01:48 28° 11.09'59 -1107 Nov 21 j 11:38 20°**8**01'35 0°-35'-47 opposition opposition -1112 May 26 j 01:33 23°M 16'16 0°30'01 -1106 Jan 19 j 20:05 15° 800'27 direct -1112 May 27 j 02:21 23°ML08'20 4.18400 AU -1106 May 10 j 13:51 $\mathbb{I}^{\circ 0}$ min. Earth dist. -1112 Jul 26 j 02:19 18°M20'23 -1106 May 26 j 20:08 3°**Ⅲ**33'56 direct evening set -1112 Oct 27 j 23:14 0°×7 -1112 Nov 28 j 02:02 conjunction -1106 Jun 09 j 13:27 6°**I**37'39 0°-3'-17 evening set 6° x 59'29 -1112 Nov 30 j 05:22 -1106 Jun 09 j 13:28 6°**Ⅲ**37'39 0°03'17 desc. node 7°**₹**29'27 minimum elong -1106 Jun 09 j 05:11 6°**Ⅲ**33′02 behind sun begin -1106 Jun 09 j 21:44 6°**Ⅱ**42'15 -1112 Dec 10 j 19:15 9°**₹**58'29 0°-1'-11 conjunction behind sun end 6°**Д**53'16 6.25310 AU -1112 Dec 10 j 19:16 9°**₹**58'29 0°01'14 -1106 Jun 10 j 17:25 minimum elong max. Earth dist. 9°**х** 53'47 -1106 Jun 23 j 05:42 9°**II**40'34 -1112 Dec 10 j 11:14 behind sun begin morning rise -1112 Dec 11 j 03:18 10° ₹ 03'11 -1106 Jul 10 j 01:40 13°**Ⅲ**21'08 behind sun end asc. node max. Earth dist. -1112 Dec 09 j 18:59 9°**∡**'44'12 6.11992 AU retrograde -1106 Oct 25 j 00:39 27°**II**36'10 morning rise -1112 Dec 23 j 13:44 12° ₹ 58'22 opposition -1106 Dec 23 j 16:20 22°**Ц**36'20 0°25'22 -1111 Mar 22 j 19:21 0°₹ min. Earth dist. -1106 Dec 23 j 06:39 22°Д39'34 4.31281 AU retrograde -1111 May 01 j 09:56 2°る22'39 direct -1105 Feb 22 j 10:02 17°**Д**33'25 -1111 Jun 10 j 07:11 30°R ✓ -1105 Jun 03 j 03:36 0ಂತಾ -1111 Jul 01 j 03:01 27° ₹725'44 0°-34'-51 -1105 Jun 29 j 16:52 5°937'09 opposition evening set min. Earth dist. -1111 Jul 01 j 10:35 27°**尽** 23'16 4.06100 AU direct -1111 Aug 29 j 18:32 22°**尽** 31'56 conjunction -1105 Jul 13 j 03:54 8°533'36 0°36'38 -1111 Nov 09 i 00:47 0°る -1105 Jul 13 i 03:52 minimum elong 8°933'34 0°36'39 -1110 Jan 01 j 10:59 11°**5**42'37 -1105 Jul 13 i 05:34 evening set max. Earth dist. 8°934'30 6.36398 AU morning rise -1105 Jul 26 j 12:19 11°528'37 -1110 Jan 14 i 09:51 14°₹48'37 0°-43'-14 -1105 Nov 24 j 17:00 28°\$38'54 conjunction retrograde opposition minimum elong -1110 Jan 14 i 09:48 14°₹48'35 0°43'15 -1104 Jan 23 i 17:41 23°542'53 1°16'12 max. Earth dist. -1110 Jan 14 j 14:11 14°る51'13 6.01474 AU min. Earth dist. -1104 Jan 24 j 00:41 23°5540'35 4.40189 AU -1110 Jan 27 j 11:12 17°る56'08 direct -1104 Mar 25 j 14:57 18°539'30 morning rise -1110 Mar 23 j 09:19 -1104 Jun 30 j 03:06 $0^{\circ}\Omega$ 0°≈≈ retrograde -1110 Jun 08 j 03:23 8°≈13'10 evening set -1104 Jul 30 j 22:00 6° **Ω**24'34 opposition -1110 Aug 07 j 09:11 3°≈12'21 -1°-29'-53 max. Earth dist. -1104 Aug 12 j 01:10 9°**Ω**02'22 6.42400 AU min. Earth dist. -1110 Aug 06 j 19:43 3°≈16′50 3.98514 AU -1110 Sep 02 j 17:43 30°R♂ conjunction -1104 Aug 13 j 00:26 9°Ω15'02 1°04'50 -1110 Oct 04 j 18:53 28° ₹ 18'57 -1104 Aug 13 j 00:24 9°**Ω**15′01 1°04'50 direct minimum elong -1110 Nov 05 j 14:12 -1104 Aug 25 j 23:42 12° Ω 03'57 0°≈ morning rise -1109 Jan 25 j 19:03 15°≈ -1104 Sep 08 j 17:29 15°**Ω** -1109 Feb 06 j 17:53 17°≈49'59 retrograde -1104 Dec 24 j 02:42 $28^{\circ}\Omega$ 54'52 evening set opposition -1103 Feb 22 j 12:12 $24^{\circ}\Omega 01'50$ 1°44'51 conjunction -1109 Feb 19 j 23:56 21°≈00'59 -1°-10'-8 min. Earth dist. -1103 Feb 23 j 11:17 23° Ω 54'24 4.43050 AU minimum elong -1109 Feb 19 j 23:54 21°≈00'58 1°10'09 direct -1103 Apr 26 j 03:19 18° Ω 59'16 max. Earth dist. -1109 Feb 21 j 08:19 21°≈20'28 5.97432 AU -1103 Jul 30 j 03:02 0° m -1109 Mar 05 j 09:25 24°≈13'45 -1103 Aug 31 j 00:27 6° m 39'38 morning rise evening set -1109 Mar 30 j 03:57 max. Earth dist. -1103 Sep 11 j 01:34 9° Mp 04'20 6.41786 AU

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1103 in astronomical counting style is the year 1104 BCE in historical counting style. -1103 Sep 12 i 19:23 9° m 27'14 1°14'53 max. Earth dist. -1097 Feb 26 j 21:40 26°≈43'56 5.97528 AU conjunction -1103 Sep 12 j 19:22 9°**m**27'14 -1097 Mar 10 j 18:16 29°≈34'22 minimum elong 1°14'54 morning rise 0°**)**€ -1103 Sep 25 j 11:40 12° mp 13'36 -1097 Mar 12 j 13:20 morning rise -1102 Jan 24 j 02:56 29° Mp 12'54 -1097 Jul 21 j 01:39 20° ₩ 05'06 retrograde retrograde -1102 Mar 25 j 20:44 24° m 21'12 1°45'10 -1097 Sep 18 j 19:40 15° ¥ 00'36 -1°-50'-1 opposition opposition $-1102 \; Mar \; 27 \; j \; 05:28 \quad 24^{\circ} \; \text{Mp} \; 10'45 \quad 4.39099 \; AU$ -1097 Sep 17 j 13:39 15° **★** 10'47 3.99417 AU min. Earth dist. min. Earth dist. -1097 Nov 15 j 17:34 10°**米**05'04 -1102 May 27 j 13:19 19° m 20'23 direct direct -1102 Aug 27 j 22:07 0ಂ⊽ evening set -1096 Mar 20 j 09:25 29° **∺** 31'34 $0^{\circ}\Upsilon$ evening set -1102 Sep 30 j 18:35 7°**♀**10'31 -1096 Mar 22 j 09:52 max. Earth dist. -1102 Oct 11 j 10:47 9°**₽**33'04 6.34738 AU conjunction -1096 Apr 02 j 23:58 2°**Y**43'49 -1°-7'-36 -1102 Oct 13 j 09:32 -1096 Apr 03 j 00:01 2°**Y**'43'51 conjunction 9°₽59'11 1°04'17 minimum elong 1°07'37 -1102 Oct 13 j 09:34 -1096 Apr 05 j 04:05 minimum elong 9°**₽**59'12 1°04'15 max. Earth dist. 3°**Υ**14'32 6.02985 AU morning rise -1102 Oct 25 j 22:35 12°**£**47'10 morning rise -1096 Apr 16 j 17:08 5°Υ57'13 -1101 Feb 10 j 13:22 0°M retrograde -1096 Aug 24 j 21:27 25°\partial 49'29 retrograde -1101 Feb 25 j 13:28 0°M21'00 min. Earth dist. -1096 Oct 22 j 01:45 20°**Υ**55'31 4.08240 AU -1101 Mar 12 j 14:16 30°R **♀** opposition -1096 Oct 23 j 10:38 20°**Y**44'17 -1°-22'-20 opposition -1101 Apr 27 j 12:59 25°**♀**28'57 direct -1096 Dec 20 j 20:09 15°**Ƴ**45'36 min. Earth dist. -1101 Apr 28 j 22:11 25°**≏**18'24 4.29336 AU -1095 Apr 04 j 22:45 0°8 direct -1101 Jun 28 j 13:52 20° **2**30'44 evening set -1095 Apr 26 j 06:31 4°**8**46'13 -1101 Sep 21 j 11:38 0°M evening set -1101 Nov 01 i 02:16 8°M43'37 conjunction -1095 May 10 j 01:02 7°**8**55'08 0°-38'-25 max. Earth dist. -1101 Nov 11 j 23:40 11°ML13'13 6.23057 AU minimum elong -1095 May 10 i 01:05 7°**8**55'10 0°38'25 max. Earth dist. -1095 May 11 j 22:40 8°**8**21'16 6.14375 AU conjunction -1101 Nov 13 i 16:53 11°M 36'54 0°34'33 morning rise -1095 May 23 j 20:18 11°**8**04'10 -1101 Nov 13 j 16:55 11°M 36'55 -1095 Jun 10 j 10:30 15°8 minimum elong 0°34'32 -1101 Nov 26 j 07:23 14°M30'19 -1095 Sep 27 j 13:56 29°852'34 morning rise retrograde -1101 Nov 28 j 11:27 15°M -1095 Nov 25 j 03:39 24°857'11 4.20901 AU min. Earth dist. -1100 Feb 15 j 04:32 0°**尽** -1095 Nov 26 j 02:21 24°**8**49'29 0°-27'-12 opposition 2°**∡**¹59'51 -1094 Jan 24 j 16:29 19°**8**47'59 -1100 Mar 31 j 02:41 direct retrograde -1100 May 15 j 18:36 30°RML -1094 Apr 22 j 14:11 $\Pi^{\circ}0$ 5°**Ⅱ**43′05 -1100 May 31 j 00:55 28° ML05'48 0°21'13 -1094 May 20 j 01:48 opposition asc. node -1100 Jun 01 j 00:22 27°ML58'16 4.16423 AU -1094 May 31 j 16:01 min. Earth dist. evening set 8°**Ⅱ**15'37 -1100 Jul 30 j 21:49 23°M 10'15 direct -1094 Jun 14 j 08:45 11°**Ⅱ**18'11 0°02'44 -1100 Oct 07 j 23:01 0° ₹ conjunction -1094 Jun 14 j 08:44 11°**Ⅱ**18'10 0°02'44 -1100 Oct 09 j 12:18 0° ₹ 16'50 desc. node minimum elong -1100 Dec 02 j 19:35 11°**尽** 54'38 -1094 Jun 14 j 00:26 11°**Ⅲ**13'35 evening set behind sun begin behind sun end -1094 Jun 14 j 17:02 11°**Ⅲ**22'46 conjunction -1100 Dec 15 j 13:37 14° ₹ 54'46 0°-7'-27 max. Earth dist. -1094 Jun 15 j 09:52 11°**II**32'09 6.27340 AU minimum elong -1100 Dec 15 j 13:36 14° ₹ 54'46 0°07'29 morning rise -1094 Jun 27 j 23:59 14°**I**I19'48 behind sun begin -1100 Dec 15 j 06:16 14° ₹ 50'27 -1094 Sep 22 j 10:59 0 \circ \odot -1100 Dec 15 j 20:57 14° ₹ 59'04 -1094 Oct 29 j 06:39 2°9506'49 behind sun end retrograde -1100 Dec 14 j 17:13 14° **₹** 42'44 6.10105 AU -1094 Dec 04 j 23:35 30°R II max. Earth dist. -1100 Dec 28 j 08:53 17° ₹ 55'51 -1094 Dec 28 j 00:58 27°**Д**07'28 0°33'23 morning rise opposition -1099 Feb 22 j 11:12 0° ₹ min. Earth dist. -1094 Dec 27 j 17:02 27°П10'07 4.33025 AU -1099 May 06 j 16:47 -1093 Feb 26 j 22:16 22° **II** 04'23 retrograde 7°る29'29 direct -1099 Jul 06 j 08:19 2°る32'09 0°-43'-53 opposition -1093 May 15 i 10:50 -1099 Jul 06 j 12:47 2°る30'41 4.04499 AU min. Earth dist. evening set -1093 Jul 04 i 06:11 10°504'06 -1099 Jul 26 j 18:35 30°R ✓ direct -1099 Sep 03 i 18:25 27° ₹ 38'37 conjunction -1093 Jul 17 j 15:57 12°559'29 0°41'25 -1099 Oct 12 j 02:37 0°₹ minimum elong -1093 Jul 17 j 15:55 12°559'28 0°41'26 -1098 Jan 06 j 12:09 16°る53'54 max. Earth dist. -1093 Jul 17 j 12:46 12°557'45 evening set 6.37714 AU -1093 Jul 30 j 23:06 15°\$53'27 morning rise -1093 Oct 15 j 10:57 conjunction -1098 Jan 19 j 11:50 20° ₹ 00'49 0°-48'-21 0 $^{\circ}\Omega$ minimum elong -1098 Jan 19 j 11:47 20°**⋜**00'48 0°48'23 retrograde -1093 Nov 28 j 22:42 2°**Ω**59'05 -1098 Jan 19 j 19:33 20°**⋜**05'27 -1092 Jan 12 j 16:56 30° ₽. 55 max. Earth dist. 6.00304 AU morning rise -1098 Feb 01 j 14:26 23°**⋜**09'23 opposition -1092 Jan 27 j 23:45 28°503'34 1°21'40 -1098 Mar 03 j 04:31 min. Earth dist. -1092 Jan 28 j 10:20 28°500'07 4.41002 AU 0°≈ -1098 Jun 13 j 12:12 13°≈32'02 direct -1092 Mar 30 j 01:15 23°500'11 retrograde -1098 Aug 12 j 17:04 -1092 Jun 11 j 02:44 opposition 8°**≈**30'39 -1°-35'-23 $0^{\circ}\Omega$ min. Earth dist. -1098 Aug 12 j 00:11 8°≈36'18 3.97941 AU evening set -1092 Aug 04 j 06:28 10° **Ω** 43'47 direct -1098 Oct 09 j 23:29 3°≈37'10 max. Earth dist. -1092 Aug 16 j 04:29 13°**Ω**18'50 6.42620 AU -1097 Jan 07 j 11:59 15°≈ evening set -1097 Feb 12 j 00:33 23°≈09'43 conjunction -1092 Aug 17 j 07:49 13°Ω33'42 1°07'23 minimum elong -1092 Aug 17 j 07:47 13°**Ω**33'41 1°07'24 -1097 Feb 25 j 07:51 26°≈21'13 -1°-11'-53 -1092 Aug 23 j 22:33 15°**Ω** conjunction -1097 Feb 25 j 07:50 26°≈21'12 1°11'54 -1092 Aug 30 j 05:59 16°**\22**'05 minimum elong morning rise

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 28 Attention, astronomical year style is used: The year -1092 in astronomical counting style is the year 1093 BCE in historical counting style.

Attention, astronom	ical year style is used: Tl	he year -1092	in astronomical co	unting style is the year	1093 BCE in historical	counting style.	
	-1092 Nov 11 j 20:47	0° m			-1086 Feb 13 j 10:17	0° ≈	
retrograde	-1092 Dec 28 j 08:27	3°m/12'59			-1086 Apr 29 j 06:32		
	-1091 Feb 13 j 14:06			retrograde	-1086 Jun 18 j 22:29		
opposition	-1091 Feb 26 j 19:16		1°46'40		-1086 Aug 09 j 04:56		
min. Earth dist.	-1091 Feb 27 j 20:02		4.42697 AU	min. Earth dist.	-1086 Aug 17 j 06:18		3.97859 AU
direct	-1091 Apr 30 j 10:48			opposition	-1086 Aug 18 j 01:11		-1°-40'-4
	-1091 Jul 10 j 22:57	0°m)		direct	-1086 Oct 15 j 05:40	8°≈56'01	
evening set	1 3		C 40077 ATT	. ,	-1086 Dec 16 j 19:59		
max. Earth dist.	-1091 Sep 15 j 06:46	13°110/23'40	6.40877 AU	evening set	-1085 Feb 17 j 07:35		
	1001 8 17:01-26	120 m 4710 E	1014120		-1085 Feb 23 j 17:11	0° ∀	
conjunction minimum elong	-1091 Sep 17 j 01:26	13° mp 47'05	1°14'38 1°14'38		1005 M 02 : 15.40	1°) 39'53	10 121 2
morning rise	-1091 Sep 17 j 01:26 -1091 Sep 29 j 16:57		1 14 36	conjunction minimum elong	-1085 Mar 02 j 15:49 -1085 Mar 02 j 15:49	1° X 39'52	
morning rise	-1091 Sep 29 j 16.37 -1091 Dec 09 j 21:24	0° ⊽		max. Earth dist.	-1085 Mar 04 j 08:08		5.98083 AU
retrograde	-1091 Dec 09 j 21.24 -1090 Jan 28 j 13:32	0 == 3° ჲ 37'10		morning rise	-1085 Mar 16 j 03:24	4°) 53'14	3.96063 AU
retrograde	-1090 Mar 20 j 11:26			retrograde	-1085 Jul 26 j 05:14		
opposition	-1090 Mar 30 j 08:08		1°42'48	opposition	-1085 Sep 23 j 23:10		-1°-48'-28
min. Earth dist.	-1090 Mar 31 j 17:55	28° M) 34'46	4.37693 AU	min. Earth dist.	-1085 Sep 22 j 15:07		4.00558 AU
direct	-1090 May 31 j 23:16		4.57075710	direct	-1085 Nov 20 j 21:04	15° ¥ 19'12	4.00330710
uncet	-1090 Aug 08 j 03:11	0∘ ರ		direct	-1084 Mar 05 j 04:35	0°Υ	
evening set	-1090 Oct 05 j 03:09	11° ≏ 38'56		evening set	-1084 Mar 25 j 15:25	4° Υ 41'55	
max. Earth dist.	-1090 Oct 15 j 17:40		6.32938 AU	0.08 000			
				conjunction	-1084 Apr 08 j 06:46	7° Ƴ 53'47	-1°-4'-45
conjunction	-1090 Oct 17 j 17:46	14° ≏ 28'13	1°01'08	minimum elong	-1084 Apr 08 j 06:48		1°04'45
minimum elong	-1090 Oct 17 j 17:48		1°01'08	max. Earth dist.	-1084 Apr 10 j 10:34	8° Y 24'12	6.04591 AU
morning rise	-1090 Oct 30 j 06:59			morning rise	-1084 Apr 22 j 00:27	11° Y 06'40	
S	-1089 Jan 02 j 09:16	0°M		C	-1084 Aug 07 j 03:32	0°8	
retrograde	-1089 Mar 02 j 08:21	4°M58'47		retrograde	-1084 Aug 29 j 18:21	0° 8 49'59	
opposition	-1089 May 02 j 07:11	0°ML06'31	1°09'17	C	-1084 Sep 21 j 03:15		
••	-1089 May 03 j 03:39	30° ₹ Ω		min. Earth dist.	-1084 Oct 26 j 23:50		4.10114 AU
min. Earth dist.	-1089 May 03 j 15:39	29° ≏ 56'11	4.27256 AU	opposition	-1084 Oct 28 j 07:00	25° Ƴ 44'57	-1°-15'-43
direct	-1089 Jul 03 j 04:42	25° ≏ 08'39		direct	-1084 Dec 25 j 20:53	20° Ƴ 45'51	
	-1089 Aug 30 j 14:59	0° M			-1083 Mar 17 j 03:53	0°8	
evening set	-1089 Nov 05 j 15:28	13°M26'56		evening set	-1083 May 01 j 07:46	9° 8 41'11	
	-1089 Nov 12 j 09:38	15° M ₊					
max. Earth dist.	-1089 Nov 16 j 16:56	15°M59'33	6.20895 AU	conjunction	-1083 May 15 j 02:28	12° 8 49'18	0°-33'-1
				minimum elong	-1083 May 15 j 02:30	12° 8 49'19	0°33'01
conjunction	-1089 Nov 18 j 06:36	16°M21'17	0°29'05	max. Earth dist.	-1083 May 16 j 22:48	13° 8 14'33	6.16377 AU
minimum elong	-1089 Nov 18 j 06:37	16°M21'18	0°29'04		-1083 May 24 j 16:11	15° 8	
morning rise	-1089 Nov 30 j 21:32			morning rise	-1083 May 28 j 21:24		
	-1088 Jan 20 j 07:49	0° ∡ ¹			-1083 Aug 07 j 14:04	Π $^{\circ}0$	
retrograde	-1088 Apr 05 j 05:05	7° ₹ 155'19		retrograde	-1083 Oct 02 j 01:47	4° Ⅱ 35'58	
opposition	-1088 Jun 05 j 02:49	3° ∡ ¹00'54	0°12'05		-1083 Nov 27 j 08:48		
min. Earth dist.	-1088 Jun 05 j 23:44	2° ₹ 54'11	4.14352 AU	opposition	-1083 Nov 30 j 15:30		0°-18'-33
	-1088 Jun 30 j 09:10			min. Earth dist.	-1083 Nov 29 j 18:03		4.22847 AU
direct	-1088 Aug 04 j 18:25	28°M05'48		direct	-1082 Jan 29 j 09:05		
desc. node	-1088 Aug 18 j 07:28	28°M23'24		asc. node	-1082 Mar 29 j 23:21		
	-1088 Sep 08 j 17:19	0° ∡ 7		. ,	-1082 Apr 01 j 05:48	0°II	
evening set	-1088 Dec 07 j 15:49	16° ₹ 55'31		evening set	-1082 Jun 05 j 11:07	12°Щ54'41	
	1000 D 20:10.22	100 75040	00 121 44		1002 1 10:02 50	150T57U1	0000122
conjunction	,		0°-13'-44	conjunction	-1082 Jun 19 j 02:58		0°08'33
minimum elong	-1088 Dec 20 j 10:22		0°13'45	minimum elong	-1082 Jun 19 j 02:57		0°08'34
behind sun begin	-1088 Dec 20 j 05:56			behind sun begin	-1082 Jun 18 j 19:46		
behind sun end max. Earth dist.	-1088 Dec 20 j 14:49	19° х 59'19 19° х 46'34	6.08311 AU	behind sun end max. Earth dist.	-1082 Jun 19 j 10:08		6.29086 AU
	-1088 Dec 19 j 17:16		0.08311 AU		-1082 Jun 19 j 22:40		6.29086 AU
morning rise	-1087 Jan 02 j 06:45 -1087 Feb 02 j 02:22	22°♂59'00 0°♂		morning rise	-1082 Jul 02 j 17:23 -1082 Aug 26 j 10:26	18° Ⅱ 56'42 0° ©	
retrograde	-1087 Feb 02 j 02:22 -1087 May 12 j 01:17			retrograde	-1082 Aug 26 j 10:26 -1082 Nov 02 j 15:13	6°€36'32	
opposition	-1087 May 12 J 01.17 -1087 Jul 11 j 15:44	7°る43'26	0°-52'-43	opposition	-1082 Nov 02 j 13.13 -1081 Jan 01 j 09:41	1°937'48	0°41'11
min. Earth dist.	-1087 Jul 11 j 16:12	7°る43'17	4.03161 AU	min. Earth dist.	-1081 Jan 01 j 05:18	1°939'15	4.34446 AU
direct	-1087 Sep 08 j 21:08	7 343 17 2° 3 50'01	1.05101 AU	mm. Lattii dist.	-1081 Jan 13 j 21:38		1.57 77 0 AU
evening set	-1086 Jan 11 j 15:12			direct	-1081 Mar 03 j 12:09		
5. cg 50t	1000 Juli 11 J 10.12				-1081 Apr 21 j 08:35	0°9	
conjunction	-1086 Jan 24 j 16:00	25° ♂ 16'22	0°-53'-8	evening set	-1081 Jul 08 j 19:11	14°931'25	
minimum elong	-1086 Jan 24 j 15:57		0°53'10			· · - ·	
max. Earth dist.	-1086 Jan 25 j 06:10		5.99545 AU	conjunction	-1081 Jul 22 j 03:59	17° © 25'59	0°45'59
morning rise	-1086 Feb 06 j 19:30			minimum elong	-1081 Jul 22 j 03:56		0°46'00
-	,			Ç	,		

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1081 in astronomical counting style is the year 1082 BCE in historical counting style. -1081 Jul 21 j 21:49 17°522'37 6.38702 AU morning rise -1075 Jan 07 j 03:57 28° ₹ 01'02 max. Earth dist. -1081 Aug 04 i 09:46 20°519'01 -1075 Jan 15 j 14:55 0°궁 morning rise -1081 Sep 21 j 08:34 -1075 May 17 j 08:57 17°る50'02 $0^{\circ}\Omega$ retrograde -1081 Dec 03 j 03:37 -1075 Jul 16 j 21:20 12°중51'30 7°**Ω**21'24 opposition -1°00'-58 retrograde -1080 Feb 01 j 06:53 -1075 Jul 16 j 19:28 12°**궁**52'06 4.02321 AU opposition 2°Ω26'20 1°26'44 min. Earth dist. -1075 Sep 13 j 23:19 -1080 Feb 01 j 18:58 min. Earth dist. 2°**Ω**22'24 4.41523 AU direct 7°**る**58'11 -1074 Jan 16 j 16:19 27° ₹ 18'23 -1080 Feb 20 j 20:31 30°Rூ evening set -1074 Jan 27 j 21:38 direct -1080 Apr 03 j 10:06 27°**©**23'05 -1080 May 16 j 08:09 $0^{\circ}\Omega$ 0°≈26'36 0°-57'-22 evening set -1080 Aug 08 j 15:48 15° **Ω**06'03 conjunction -1074 Jan 29 j 17:52 -1074 Jan 29 j 17:49 -1080 Aug 08 j 04:35 15°**Ω** minimum elong 0°**≈**26'34 0°57'24 -1074 Jan 30 j 11:17 max. Earth dist. -1080 Aug 20 j 09:23 17° **Ω**38'52 6.42626 AU max. Earth dist. 0°**≈**37'04 5.99212 AU -1074 Feb 11 j 22:33 morning rise 3°**≈**36'31 conjunction -1080 Aug 21 j 15:57 17°**Ω**55'30 1°09'36 -1074 Apr 04 j 04:48 15°≈ minimum elong -1080 Aug 21 j 15:55 17°**Ω**55'29 1°09'37 retrograde -1074 Jun 24 j 02:50 24°≈03'46 morning rise -1080 Sep 03 j 13:04 20°**Ω**43'28 min. Earth dist. -1074 Aug 22 j 07:35 19°**≈**08'43 3.98103 AU -1080 Oct 19 j 08:29 0° m opposition -1074 Aug 23 j 05:43 19°**≈**01'18 -1°-43'-46 retrograde -1079 Jan 01 j 16:59 7° m 35'08 -1074 Sep 27 j 15:19 15°R≈ opposition -1079 Mar 03 j 04:10 2° m/42'39 1°47'55 direct -1074 Oct 20 j 07:43 14°≈07'25 min. Earth dist. -1079 Mar 04 j 07:29 2° m 33'53 4.42203 AU -1074 Nov 12 j 01:20 15°≈ -1079 Mar 25 j 12:13 30°RΩ -1073 Feb 06 j 23:51 0°\ direct -1079 May 04 j 21:24 $27^{\circ}\Omega 40'28$ -1073 Feb 22 j 11:12 3°\;38'12 evening set -1079 Jun 14 i 07:24 0° m evening set -1079 Sep 08 i 15:14 15° m 23'45 conjunction -1073 Mar 07 j 20:26 6°**)**(49'57 -1°-13'-34 max. Earth dist. -1079 Sep 19 j 11:58 17° mp 46'50 6.39910 AU minimum elong -1073 Mar 07 j 20:26 6°**)** 49'57 1°13'36 max. Earth dist. -1073 Mar 09 j 15:04 7°**升**15′26 5.98852 AU -1079 Sep 21 j 08:48 18° mp 11'31 1°13'58 -1073 Mar 21 j 08:51 10° **★** 03'17 conjunction morning rise minimum elong -1079 Sep 21 j 08:49 18° mp 11'31 -1073 Jul 15 j 06:37 $0^{\circ}\Upsilon$ 1°13'57 -1079 Oct 03 j 23:51 20° m 58'09 -1073 Jul 31 j 05:36 0°Y25'06 morning rise retrograde -1079 Nov 16 j 20:28 0°**♀** -1073 Aug 16 j 01:35 30°R ₩ -1078 Feb 02 j 01:47 -1073 Sep 28 j 22:36 25° ¥20'05 -1°-46'-5 8°**₽**06'22 opposition retrograde -1078 Apr 03 j 21:29 -1073 Sep 27 j 14:55 25°**米**30'53 4.01758 AU 3°**2**14'45 1°39'48 min. Earth dist. opposition -1078 Apr 05 j 07:04 3°**£**04'03 4.36330 AU -1073 Nov 25 j 22:50 20°**₭**23'42 min. Earth dist. direct -1078 May 01 j 16:47 30°R M -1072 Feb 15 j 17:44 $0^{\circ}\Upsilon$ -1078 Jun 05 j 10:20 28° Mp 14'39 -1072 Mar 30 j 17:43 9°**Y**42'39 direct evening set -1078 Jul 10 j 03:16 0°**♀** -1078 Oct 09 j 12:45 16° £ 11'54 $-1072 \text{ Apr } 13 \text{ j } 09:51 \quad 12^{\circ} \Upsilon 54'10 \quad -1^{\circ} -1' -30$ evening set conjunction max. Earth dist. -1078 Oct 20 j 05:27 18°**♀**35'57 6.31308 AU minimum elong -1072 Apr 13 j 09:54 12°**Υ**54'12 1°01'31 max. Earth dist. -1072 Apr 15 j 14:14 13°**Y**24'47 6.06113 AU conjunction -1078 Oct 22 j 03:19 19°**£**01'47 0°57'35 morning rise -1072 Apr 27 j 03:57 16°**Y**06'32 -1078 Oct 22 j 03:22 19°**£**01'49 -1072 Jul 03 j 06:59 0°8 minimum elong -1078 Nov 03 j 16:27 21°**♀**51'12 -1072 Sep 03 j 10:55 5°**8**41'13 morning rise retrograde -1078 Dec 11 j 20:34 0°M opposition -1077 Mar 07 j 03:54 min. Earth dist. -1072 Oct 31 j 17:00 0°846'49 4.11796 AU retrograde 9°M40'33 -1077 May 07 j 03:01 4°ML48'08 1°02'21 -1072 Nov 06 j 10:41 30°R℃ opposition -1077 May 08 j 10:34 4° ML 38'06 4.25468 AU $-1072 \,\mathrm{Dec}\ 30\,\mathrm{i}\ 15:35\ 25^{\circ}\Upsilon36'56$ min. Earth dist. direct -1077 Jun 27 j 21:28 30°R **≏** -1071 Feb 22 i 08:53 0°8 -1077 Jul 07 j 21:27 29° **2**50'45 direct evening set -1071 May 06 j 05:53 14°**8**27'55 -1077 Jul 17 j 20:37 0°M -1071 May 08 j 14:42 15°8 -1077 Oct 27 j 00:28 15°M -1077 Nov 10 j 05:25 18°ML13'11 -1071 May 20 j 00:24 17°\begin{align*} 35'15 0°-27'-34 \end{align*} evening set conjunction max. Earth dist. -1077 Nov 21 j 08:36 20°M47'27 6.19118 AU minimum elong -1071 May 20 j 00:26 17° \(\begin{aligned}
 35'16 0°27'34 \end{aligned}
 \) -1071 May 21 j 16:07 17°**8**57'47 6.18078 AU max. Earth dist. morning rise -1071 Jun 02 j 19:13 20°**8**42'25 conjunction -1077 Nov 22 j 20:42 21°M08'22 0°23'24 minimum elong -1077 Nov 22 j 20:44 21°ML08'23 0°23'23 -1071 Jul 16 j 12:29 $0^{\circ}\Pi$ morning rise -1077 Dec 05 j 12:21 24° ML03'57 retrograde -1071 Oct 06 j 12:17 9°**I**12'47 -1077 Dec 31 j 23:46 min. Earth dist. -1071 Dec 04 j 07:44 4°**Д**17'00 4.24413 AU 0°**√** -1076 Apr 10 j 07:03 12°**尽** 52'02 -1071 Dec 05 j 02:23 4°**I**10'42 0°-10'-4 retrograde opposition -1076 Jun 10 j 04:45 7°**∡**757'09 0°02'52 -1070 Jan 11 j 00:24 30°R ₩ opposition -1076 Jun 10 j 22:14 7°**尽**51'31 4.12732 AU -1070 Feb 03 j 00:56 29°**8**08'39 min. Earth dist. direct -1070 Feb 07 j 21:40 29°**8**10'58 desc. node -1076 Jun 27 j 18:11 5°**х** 46′12 asc. node direct -1076 Aug 09 j 15:34 3°**₹**02'21 -1070 Feb 26 j 07:48 $0^{\circ}\Pi$ evening set -1076 Dec 12 j 11:31 21° ₹ 55'46 evening set -1070 Jun 10 j 03:44 17°**Ⅲ**28'14 conjunction -1076 Dec 25 j 06:55 24° ₹ 57'50 0°-19'-51 conjunction -1070 Jun 23 j 19:00 20°**Ⅲ**28'54 0°14'12 minimum elong -1076 Dec 25 j 06:53 24° ₹ 57'49 0°19'53 -1070 Jun 23 j 19:00 20°**Ⅲ**28'54 0°14'13 minimum elong

behind sun begin

-1070 Jun 23 j 15:18 20°**Ⅲ**26'51

max. Earth dist.

-1076 Dec 24 j 19:34 24° ₹ 51'06 6.07011 AU

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1070 in astronomical counting style is the year 1071 BCE in historical counting style. conjunction -1070 Jun 23 j 22:42 20°**Ⅲ**30'56 -1064 Dec 30 i 02:09 29° ₹ 55'29 0°-25'-48 behind sun end 6.30420 AU -1070 Jun 24 j 12:16 20°**Ⅲ**38'27 -1064 Dec 30 j 02:08 29° ₹ 55'28 0°25'50 max Earth dist minimum elong -1070 Jul 07 j 08:17 23°**Ⅲ**28'26 max. Earth dist. -1064 Dec 29 j 17:15 29° ₹ 50'11 morning rise 6.05693 AU -1070 Aug 07 j 02:36 0ಂಪ -1064 Dec 30 j 09:45 0°궁 -1070 Nov 06 j 21:29 11°502'38 -1063 Jan 12 j 00:17 2°**る**59'42 retrograde morning rise -1069 Jan 05 j 17:13 -1063 May 22 j 12:52 22°**궁**55'36 opposition 6°9504'28 0°48'35 retrograde -1063 Jul 22 j 01:18 17°중56'31 -1°-8'-45 min. Earth dist. -1069 Jan 05 j 14:32 6°905'21 4.35471 AU opposition -1063 Jul 21 j 19:48 17°정58'20 4.01353 AU direct -1069 Mar 07 j 22:44 1°9901'15 min. Earth dist. evening set -1069 Jul 13 j 07:31 18°956'21 direct -1063 Sep 18 j 22:09 13°중03'16 -1062 Jan 11 j 10:38 0°≈ conjunction -1069 Jul 26 j 15:01 21°950'10 0°50'14 evening set -1062 Jan 21 j 16:58 2°≈26'07 -1069 Jul 26 j 14:58 21°\$50'08 minimum elong 0°50'14 -1069 Jul 26 j 03:55 21°5544'07 -1062 Feb 03 j 19:34 max. Earth dist. 6.39339 AU conjunction 5°≈35'01 -1°-1'-11 morning rise -1069 Aug 08 j 19:45 24°542'29 minimum elong -1062 Feb 03 j 19:31 5°**≈**35'00 1°01'12 -1069 Sep 02 j 21:31 0 $^{\circ}\Omega$ max. Earth dist. -1062 Feb 04 j 17:02 5°≈47'56 5.98675 AU retrograde -1069 Dec 07 j 10:50 11°**Ω**42'40 morning rise -1062 Feb 17 j 01:14 8°**≈**45'38 opposition -1068 Feb 05 j 14:07 6°**Ω**48'04 1°31'15 -1062 Mar 15 j 21:34 15°≈ min. Earth dist. -1068 Feb 06 j 05:15 6°**Ω**43'08 4.41767 AU retrograde -1062 Jun 29 j 09:05 29°≈15'12 direct -1068 Apr 07 j 20:50 1°**Ω**44'52 min. Earth dist. -1062 Aug 27 j 10:22 24°≈20'04 3.98059 AU -1068 Jul 22 j 22:29 15°**Ω** opposition -1062 Aug 28 j 09:30 24°≈12'17 -1°-46'-42 evening set -1068 Aug 13 j 00:53 $19^{\circ}\Omega$ 27'51 direct -1062 Oct 25 j 11:08 19°≈18'07 max. Earth dist. -1068 Aug 24 j 16:07 21° **Ω**59'31 6.42451 AU -1061 Jan 19 i 19:49 0°) evening set -1061 Feb 27 j 15:30 8° **)** 49'04 conjunction -1068 Aug 26 j 00:09 22° Ω 16'58 1°11'24 -1068 Aug 26 j 00:07 22°**Ω**16'57 1°11'24 conjunction -1061 Mar 13 i 01:54 12° ★ 01'07 -1°-13'-33 minimum elong -1068 Sep 07 j 20:10 $25^{\circ}\Omega04'35$ -1061 Mar 13 j 01:55 12° ¥ 01'08 1°13'33 morning rise minimum elong -1068 Oct 01 j 02:30 0° Mg -1061 Mar 14 j 23:33 12°\ 28'21 5.99297 AU max Earth dist -1067 Jan 06 j 00:04 11° m 57'29 -1061 Mar 26 j 15:19 15° ¥ 14'42 retrograde morning rise -1067 Mar 07 j 13:34 -1061 Jun 05 j 00:09 $0^{\circ}\Upsilon$ 7° mp 05'12 1°48'32 opposition -1067 Mar 08 j 17:05 6° m 56'22 4.41649 AU -1061 Aug 05 j 06:55 5°**Y**32'44 min. Earth dist. retrograde -1067 May 09 j 06:03 2° Mp 03'17 -1061 Oct 03 j 22:30 0°**Y**27'39 -1°-42'-57 direct opposition -1061 Oct 02 j 14:09 0°**Υ**38'40 4.02649 AU -1067 Sep 12 j 23:17 19° **m** 47'59 min. Earth dist. evening set -1067 Sep 23 j 19:09 22° m 10'58 -1061 Oct 07 j 07:47 30°R € max. Earth dist. 6.39012 AU -1061 Nov 30 j 22:36 25° ¥ 30'52 direct -1067 Sep 25 j 16:09 22° m 35'49 1°12'51 -1060 Jan 23 j 10:56 conjunction $0^{\circ}\Upsilon$ -1067 Sep 25 j 16:09 22° m 35'49 -1060 Apr 04 j 21:48 14°**Υ**47'29 minimum elong 1°12'51 evening set -1067 Oct 08 j 06:40 25° m 22'36 morning rise -1067 Oct 29 j 18:29 0°**♀** conjunction -1060 Apr 18 j 14:31 17°**Υ**58'44 0°-57'-45 retrograde -1066 Feb 06 j 15:15 12°**△**35'06 minimum elong -1060 Apr 18 j 14:34 17°**Υ**58'46 0°57'45 opposition -1066 Apr 08 j 11:16 7°**•**43'29 1°36'09 max. Earth dist. -1060 Apr 20 j 16:47 18°**Υ**28'01 6.07354 AU min. Earth dist. -1066 Apr 09 j 21:43 7°**♀**32'32 4.35123 AU morning rise -1060 May 02 j 09:17 21°**Υ**10'46 -1066 Jun 09 j 23:44 2°**△**43'45 -1060 Jun 11 j 11:47 0°8 direct -1066 Oct 13 j 22:04 20° **2**43'34 evening set retrograde max. Earth dist. -1066 Oct 24 j 14:34 23°**♀**08'01 6.29878 AU -1060 Nov 06 j 17:46 5°**8**33'23 -1°-1'-18 opposition min. Earth dist. -1060 Nov 05 j 12:29 5°**8**43'22 4.13238 AU -1059 Jan 04 j 13:43 0°\(\mathbf{3}33'28 \) conjunction -1066 Oct 26 j 12:30 23° \(\Omega\) 33'59 0°53'41 direct -1066 Oct 26 j 12:32 23°**2**34'00 minimum elong 0°53'41 -1059 Apr 21 i 14:38 15°8 -1066 Nov 08 i 01:48 26° **2**24'03 morning rise evening set -1059 May 11 j 06:18 19°**8**20'58 -1066 Nov 24 i 07:26 0°M retrograde -1065 Mar 11 i 21:46 14° ML 20'10 conjunction -1059 May 25 j 00:56 22°**8**27'39 0°-21'-47 -1065 May 11 j 22:00 9°M27'28 0°55'01 minimum elong -1059 May 25 j 00:57 22°**8**27'40 0°21'48 opposition min. Earth dist. -1065 May 13 j 03:23 9°**™**18'06 4.23884 AU -1059 May 26 j 15:15 22°**8**49'19 max. Earth dist. 6.19636 AU direct -1065 Jul 12 j 12:11 4°M30'26 -1059 Jun 07 j 19:12 25°**8**33'56 morning rise -1059 Jun 27 j 22:41 -1065 Oct 09 j 15:17 15°M $\Pi^{\circ}0$ evening set -1065 Nov 14 j 18:25 22°M 56'26 retrograde -1059 Oct 11 j 01:44 13° **1**56'22 max. Earth dist. -1065 Nov 26 j 01:50 25°ML33'41 6.17514 AU opposition -1059 Dec 09 j 15:36 8°**Ⅱ**54'52 0°-1'-18 min. Earth dist. -1059 Dec 08 j 22:40 9°**Д**00'34 4.25948 AU -1065 Nov 27 j 10:10 25°M 52'29 0°17'36 -1059 Dec 18 j 03:08 7°**Ⅱ**46'59 conjunction asc. node -1065 Nov 27 j 10:11 25°M52'29 0°17'36 -1058 Feb 07 j 18:19 3°**I**52'40 minimum elong direct -1065 Dec 10 j 02:15 28°M48'58 -1058 Jun 14 j 23:12 22°**Ⅱ**08'52 morning rise evening set -1065 Dec 15 j 05:39 0°**∡** retrograde -1064 Apr 15 j 09:34 17° ₹ 45'11 conjunction -1058 Jun 28 j 13:29 25°**Ⅲ**08'34 0°19'55 desc. node -1064 May 07 j 17:34 16° ₹ 58'33 minimum elong -1058 Jun 28 j 13:27 25°**耳**08'33 0°19'56 opposition -1064 Jun 15 j 05:23 12°**х** 49'54 0°-6'-18 max. Earth dist. -1058 Jun 29 j 02:13 25°**Ⅲ**15'35 6.31835 AU min. Earth dist. -1064 Jun 15 j 21:26 12° ₹ 44'43 4.11207 AU morning rise -1058 Jul 12 j 01:52 28°**Ⅲ**07'07 -1064 Aug 14 j 12:18 7° ₹ 55'24 -1058 Jul 20 j 17:22 direct -1064 Dec 17 j 06:09 26° ₹ 52'33 -1058 Nov 11 j 06:43 15°535'17 evening set retrograde

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1057 in astronomical counting style is the year 1058 BCE in historical counting style. -1057 Jan 10 j 03:15 10°\$37'39 0°55'53 -1052 Dec 14 j 20:34 0°정 opposition -1057 Jan 10 j 02:54 10°537'45 -1052 Dec 21 j 21:14 1°る39'22 min. Earth dist. 4 36705 AU evening set -1057 Mar 12 j 13:11 direct 5°934'21 -1057 Jul 17 j 21:20 23°526'42 -1051 Jan 03 j 18:02 4°る43'14 0°-31'-21 conjunction evening set -1051 Jan 03 j 18:00 4°る43'13 0°31'23 minimum elong -1057 Jul 31 j 03:46 26°519'39 0°54'16 -1051 Jan 03 j 12:25 conjunction max. Earth dist. 4°**る**39'53 6.04294 AU -1057 Jul 31 j 03:43 26°519'37 -1051 Jan 16 j 17:01 minimum elong 0°54'17 morning rise 7°る48'28 -1057 Jul 30 j 15:30 26°512'58 -1051 May 27 j 15:34 27°**궁**51'46 max. Earth dist. 6.40329 AU retrograde -1051 Jul 27 j 01:23 22°**궁**52'10 -1°-15'-47 morning rise -1057 Aug 13 j 07:02 29°511'00 opposition -1051 Jul 26 j 18:39 22°**궁**54'23 4.00174 AU -1057 Aug 17 j 01:53 $0^{\circ}\Omega$ min. Earth dist. -1057 Nov 14 j 20:23 15°Ωdirect -1051 Sep 23 j 19:28 17°₹58'51 -1057 Dec 11 j 17:04 $16^{\circ}\Omega$ 07'46 -1051 Dec 25 j 11:57 retrograde -1050 Jan 26 j 14:47 -1056 Jan 07 j 13:36 15°RΩ evening set 7°**≈**25'34 opposition -1056 Feb 09 j 22:50 11° Ω 13'34 1°35'19 min. Earth dist. -1056 Feb 10 j 14:48 11°**Ω**08'23 4.42479 AU conjunction -1050 Feb 08 j 18:33 10°≈35'22 -1°-4'-24 direct -1056 Apr 12 j 07:33 6°**£**10′33 minimum elong -1050 Feb 08 j 18:31 10°≈35'20 1°04'26 -1056 Jul 04 j 20:32 15°**Ω** max. Earth dist. -1050 Feb 09 j 19:31 10°≈50'23 5.97826 AU evening set -1056 Aug 17 j 10:19 23°**Ω**51'32 morning rise -1050 Feb 22 j 01:25 13°**≈**46'53 max. Earth dist. -1056 Aug 28 j 21:27 $26^{\circ}\Omega$ 21'02 6.42826 AU -1050 Feb 27 j 04:15 15°≈ -1050 May 11 j 18:52 0°\ conjunction -1056 Aug 30 j 08:15 $26^{\circ}\Omega 40'00$ $1^{\circ}12'49$ retrograde -1050 Jul 04 j 12:48 4° **€** 19'54 minimum elong -1056 Aug 30 j 08:14 $26^{\circ}\Omega$ 39'59 1°12'48 -1050 Aug 28 i 01:32 30°R≈ morning rise $-1056 \text{ Sep } 12 \text{ j } 03:21 \quad 29^{\circ} \Omega 27'04$ min. Earth dist. -1050 Sep 01 j 09:37 29°≈25'03 3.97672 AU -1056 Sep 14 j 16:16 0° Mp opposition -1050 Sep 02 j 10:38 29°≈16'37 -1°-48'-46 retrograde -1055 Jan 10 j 08:34 16° Mp 19'25 direct -1050 Oct 30 j 09:19 24°≈22'13 -1055 Mar 11 j 22:56 11° m 27'17 -1050 Dec 29 j 10:52 0°**)**€ 1°48'31 opposition -1055 Mar 13 j 04:25 11° mp 17'51 -1049 Mar 04 j 18:24 13°**米** 54'55 min. Earth dist. 4.41670 AU evening set -1055 May 13 j 17:40 6° m 25'35 direct -1055 Sep 17 j 05:48 24° m 09'30 -1049 Mar 18 j 05:49 17° **★** 07'25 -1°-12'-56 conjunction evening set -1055 Sep 28 j 00:45 26° m 32'08 -1049 Mar 18 j 05:50 17° **米** 07'26 1°12'57 max. Earth dist. 6.38669 AU minimum elong -1049 Mar 20 j 04:02 17° **X** 34'58 5.99390 AU max. Earth dist. -1055 Sep 29 j 22:07 26° m 57'13 1°11'21 morning rise -1049 Mar 31 j 20:26 20°**₭**21'27 conjunction -1049 May 13 j 21:37 0°**Υ** -1055 Sep 29 j 22:09 26° m 57'13 1°11'21 minimum elong -1055 Oct 12 j 12:03 29° m 43'56 -1049 Aug 10 j 06:07 10°**Υ**37'04 morning rise retrograde -1055 Oct 13 j 17:18 0°**♀** $-1049 \text{ Oct } 08 \text{ j } 21:07 \quad 5^{\circ} \Upsilon 31'50 \quad -1^{\circ} -39' -3$ opposition -1054 Feb 11 j 00:09 16°**⊆**58'55 -1049 Oct 07 j 12:09 5°**Υ**43'06 4.03214 AU retrograde min. Earth dist. -1054 Apr 12 j 22:49 12°**♀**07'11 1°32'00 -1049 Dec 05 j 22:09 0° **Y** 34'38 opposition direct min. Earth dist. -1054 Apr 14 j 08:23 11°**2**56'31 4.34430 AU evening set -1048 Apr 10 j 01:34 19° Υ 50'08 direct -1054 Jun 14 j 08:52 7°**♀**07'45 -1054 Oct 18 j 04:25 25°**♀**08'24 conjunction -1048 Apr 23 j 19:09 23°**Y**01'19 0°-53'-34 evening set max. Earth dist. -1054 Oct 28 j 21:48 27°**£**33'43 6.28885 AU minimum elong -1048 Apr 23 j 19:12 23°**Υ**01'21 0°53'34 max. Earth dist. -1048 Apr 25 j 22:31 23°**Y**31'09 -1054 Oct 30 j 18:41 27°**2**59'09 0°49'35 -1048 May 07 j 14:11 26°**℃**13'02 conjunction morning rise -1054 Oct 30 j 18:44 27°**2**59'11 0°49'34 -1048 May 24 j 06:14 0°8 minimum elong -1054 Nov 08 j 16:01 -1048 Aug 25 j 15:14 15°8 -1048 Sep 13 j 00:36 15°833'13 morning rise -1054 Nov 12 j 08:02 0°M49'40 retrograde -1053 Jan 24 i 04:28 15°M -1048 Oct 01 i 04:49 15°R8 -1053 Mar 16 j 14:13 18° ML51'19 -1048 Nov 10 j 07:39 10°838'32 4.14568 AU retrograde min. Earth dist. -1053 May 08 i 10:57 15°RML opposition -1048 Nov 11 i 11:47 10°**8**28'58 0°-53'-22 -1053 May 16 i 13:47 13°ML58'21 0°47'33 direct -1047 Jan 09 i 11:24 5°**8**28'41 opposition min. Earth dist. -1053 May 17 j 19:19 13°ML48'55 4.22617 AU -1047 Apr 02 j 23:20 15°8 direct -1053 Jul 17 j 01:49 9°M01'35 -1047 May 16 j 06:50 24° 812'54 evening set -1053 Sep 19 j 21:08 15°M evening set -1053 Nov 19 j 03:38 27° ML30'13 conjunction -1047 May 30 j 01:09 27°**8**18'49 0°-15'-52 -1053 Nov 29 j 21:25 0° x⁷ minimum elong -1047 May 30 j 01:11 27°**8**18'49 0°15'52 max. Earth dist. -1047 May 31 j 12:47 27°**8**38'53 6.21168 AU -1047 Jun 10 j 23:45 conjunction -1053 Dec 01 j 19:42 0°**∡**¹26'59 0°11'55 Π $^{\circ}0$ -1053 Dec 01 j 19:43 0°**҂**27′00 0°11'54 -1047 Jun 12 j 19:05 0°**Ⅲ**24'15 minimum elong morning rise -1053 Dec 01 j 14:05 0°**х** 23′43 -1047 Oct 15 j 13:29 18°**Ⅲ**38'40 behind sun begin retrograde 0°**х** 30′16 -1047 Oct 27 j 03:02 18°**Ⅲ**25'22 behind sun end -1053 Dec 02 j 01:22 asc. node 0°**∡**08'35 6.16083 AU -1047 Dec 14 j 04:39 13°**II**37'35 0°07'26 max. Earth dist. -1053 Nov 30 j 12:08 opposition morning rise -1053 Dec 14 j 12:28 3°**х¹**24'22 min. Earth dist. -1047 Dec 13 j 13:01 13°**II**42'50 4.27526 AU desc. node -1052 Mar 19 j 18:05 20° ₹ 57'03 direct -1046 Feb 12 j 11:29 8°**Ⅲ**35′06 retrograde -1052 Apr 20 j 05:26 22°₹28'14 evening set -1046 Jun 19 j 17:45 26°**Ⅲ**47'27 opposition -1052 Jun 20 j 01:36 17°**尽** 32'29 0°-15'-8 min. Earth dist. -1052 Jun 20 j 14:53 17°**尽** 28'11 4.09725 AU -1046 Jul 03 j 07:09 29°**Ⅱ**46'09 conjunction 0°25'30 -1052 Aug 19 j 02:59 12° ₹ 38'11 -1046 Jul 03 j 07:07 29°**Ⅱ**46'08 direct minimum elong

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1046 in astronomical counting style is the year 1047 BCE in historical counting style. -1046 Jul 03 j 17:34 29°**Д**51'53 6.33324 AU max. Earth dist. retrograde -1040 Apr 25 j 10:33 27°**尽** 28'49 -1046 Jul 04 j 08:18 -1040 Jun 25 i 04:44 22° ₹32'35 0°-24'-24 000 opposition -1046 Jul 16 j 18:13 2°9543'32 min. Earth dist. -1040 Jun 25 j 16:08 22°**₹** 28'53 4 07924 AU morning rise -1046 Nov 15 j 15:27 20°505'30 -1040 Aug 24 j 02:09 17° ₹38'31 direct retrograde -1045 Jan 14 j 12:42 15°508'23 -1040 Nov 27 j 11:35 opposition 1°02'49 0°ಕ -1045 Jan 14 j 14:36 15°507'46 -1040 Dec 26 j 19:21 min. Earth dist. 4.37961 AU evening set 6°₹44'43 -1045 Mar 17 j 02:50 10°505'03 direct 0°-37'-2 -1039 Jan 08 j 17:06 9°**る**49'39 evening set -1045 Jul 22 j 10:13 27°554'30 conjunction -1039 Jan 08 j 17:04 -1045 Aug 01 j 01:44 $0^{\circ}\Omega$ minimum elong 9°**る**49'38 0°37'03 max. Earth dist. -1039 Jan 08 j 15:52 9°**⋜**48'55 6.02807 AU 12°る56'01 conjunction -1045 Aug 04 j 15:16 0°**Ω**46'32 0°57'59 morning rise -1039 Jan 21 j 17:10 -1045 Aug 04 j 15:14 -1039 Apr 17 j 17:10 minimum elong 0°**Ω**46'31 0°58'00 0°≈ -1045 Aug 03 j 22:35 -1039 Jun 02 j 00:35 max. Earth dist. 0°**Ω**37'27 6.41206 AU retrograde 3°**≈**06'30 morning rise -1045 Aug 17 j 17:22 3°**Ω**37'02 -1039 Jul 17 j 16:36 30°R₹ -1045 Oct 14 j 21:26 15° Ω opposition -1039 Aug 01 j 08:26 28°**る**06'26 -1°-22'-40 retrograde -1045 Dec 16 j 00:14 20° **Ω**31'00 min. Earth dist. -1039 Jul 31 j 22:17 28°**る**09'47 3.99201 AU opposition -1044 Feb 14 j 07:02 15°**Ω**37'09 1°38'53 direct -1039 Sep 28 j 21:59 23°♂13'10 min. Earth dist. -1044 Feb 15 j 01:32 15° Ω 31'10 4.42926 AU -1039 Dec 04 j 16:06 -1044 Feb 19 j 01:59 15°RΩ evening set -1038 Jan 31 j 19:49 12°≈42'39 direct -1044 Apr 16 j 18:22 10° Ω34'11 -1038 Feb 10 j 08:25 15°≈ -1044 Jun 12 j 17:42 15° Ω evening set -1044 Aug 21 i 19:00 28° Ω14'16 conjunction -1038 Feb 14 i 00:31 15°≈53'04 -1°-7'-19 -1044 Aug 29 j 21:46 0° m minimum elong -1038 Feb 14 i 00:29 15°≈53'03 1°07'20 max. Earth dist. -1044 Sep 02 j 04:18 0° m 42'49 6.42783 AU max. Earth dist. -1038 Feb 15 i 04:34 16°≈09'57 5.97453 AU morning rise -1038 Feb 27 i 08:37 19°≈05'15 -1044 Sep 03 j 16:06 1° m 02'21 1°13'51 -1038 Apr 17 j 02:40 0°**₩** conjunction -1044 Sep 03 j 16:05 1° m 02'21 -1038 Jul 09 j 19:04 9°\ 39'00 1°13'51 retrograde minimum elong -1044 Sep 16 j 10:03 3°m49'01 -1038 Sep 07 j 16:38 4°**)** 35'16 -1°-50'-3 morning rise opposition -1043 Jan 14 j 16:15 20° Mp 42'30 min. Earth dist. -1038 Sep 06 j 13:13 4°**)** 44'32 3.97981 AU retrograde -1043 Mar 16 j 08:49 15° m 50'34 1°47'58 -1038 Oct 21 j 22:46 30°R≈ opposition 4.41140 AU -1043 Mar 17 j 14:55 15° **m** 40'57 -1038 Nov 04 j 14:24 29°≈40'32 min. Earth dist. direct -1038 Nov 18 j 06:56 -1043 May 18 j 02:38 10° Mp 49'09 0°**∀** direct -1043 Sep 21 j 13:20 28° m/34'19 -1037 Mar 10 j 01:54 19° **∺** 11'57 evening set evening set -1043 Sep 28 j 00:42 0∘ଫ max. Earth dist. -1043 Oct 02 j 05:47 0°**ჲ**56'00 -1037 Mar 23 j 14:30 22° **★** 24'30 -1°-11'-46 6.37674 AU conjunction -1037 Mar 23 j 14:32 22° **★**24'31 1°11'47 minimum elong -1043 Oct 04 j 04:57 1°**2**22'10 1°09'27 -1037 Mar 25 j 16:30 22° **★** 54'12 6.00372 AU conjunction max. Earth dist. minimum elong -1043 Oct 04 j 04:59 1°**≏**22'11 1°09'27 morning rise -1037 Apr 06 j 05:49 25° **∺** 38'23 morning rise -1043 Oct 16 j 18:39 4°**♀**09'10 -1037 Apr 25 j 01:40 0°**Υ** retrograde -1042 Feb 15 j 15:23 21°**2**29'11 retrograde -1037 Aug 15 j 08:13 15°**Y**47'12 opposition -1042 Apr 17 j 13:16 16°**♀**37'25 1°27'18 opposition -1037 Oct 13 j 21:37 10°**Υ**'41'55 -1°-34'-20 min. Earth dist. -1042 Apr 18 j 23:54 16° **2**26'24 4.33008 AU min. Earth dist. -1037 Oct 12 j 12:54 10°**Υ**53'05 4.04753 AU -1042 Jun 18 j 21:54 11°**△**38'18 -1037 Dec 11 j 01:50 5° **Y** 44'16 direct direct -1042 Oct 22 j 13:58 29° **2**42'22 -1036 Apr 15 j 06:13 24° Υ 54'47 evening set evening set -1042 Oct 23 j 21:13 0°M max. Earth dist. -1042 Nov 02 i 08:18 2°M08'46 6.27160 AU conjunction $-1036 \text{ Apr } 29 \text{ j } 00:09 \quad 28^{\circ} \Upsilon 05'16 \quad 0^{\circ} 49'02$ minimum elong -1042 Nov 04 i 04:24 $-1036 \text{ May } 01 \text{ j } 02:19 \quad 28^{\circ} \Upsilon 34'15 \quad 6.10313 \text{ AU}$ conjunction 2°MJ33'51 0°45'04 max. Earth dist. minimum elong -1042 Nov 04 i 04:26 2°M33'52 0°45'03 -1036 May 07 i 06:54 0°8 morning rise -1042 Nov 16 i 17:58 5°M25'11 -1036 May 12 i 19:24 1°816'08 morning rise -1042 Dec 31 j 20:25 15°M -1036 Jul 19 j 00:43 15°8 retrograde -1041 Mar 21 j 10:09 23°M 35'02 retrograde -1036 Sep 17 j 15:37 20°825'47 -1041 May 21 j 10:14 18° ML41'46 0°39'28 -1036 Nov 15 j 00:53 15°**8**31'11 4.16707 AU opposition min. Earth dist. -1041 May 22 j 13:30 18°M 33'03 4.20701 AU -1036 Nov 16 j 04:28 15°**8**21'48 0°-45'-12 min. Earth dist. opposition -1041 Jun 23 j 04:22 15°RML -1036 Nov 18 j 20:37 15°R8 direct -1041 Jul 21 j 16:27 13°M 45'25 direct -1035 Jan 14 j 08:00 10°**8**21'05 -1041 Aug 19 j 02:15 15°M -1035 Mar 11 j 06:56 15°**8** -1041 Nov 13 j 17:01 -1035 May 21 j 04:54 28°**8**59'15 0°× evening set -1041 Nov 23 j 18:37 2°×19'01 -1035 May 25 j 17:39 $0^{\circ}\Pi$ evening set max. Earth dist. -1041 Dec 05 j 06:33 5°**₹**'00'04 6.14150 AU -1035 Jun 03 j 22:46 2°**I**104'01 0°-10'00 conjunction conjunction -1041 Dec 06 j 11:11 5°**х** 16'49 0°05'51 minimum elong -1035 Jun 03 j 22:47 2°**Ⅲ**04'02 0°09'59 minimum elong -1041 Dec 06 j 11:11 5°**х** 16′49 0°05'50 behind sun begin -1035 Jun 03 j 16:08 2°**Ⅱ**00′19 behind sun begin -1041 Dec 06 j 03:32 5°**х¹**12'22 behind sun end -1035 Jun 04 j 05:27 2°**Ⅲ**07'45 behind sun end -1041 Dec 06 j 18:51 5°**х** 21'17 max. Earth dist. -1035 Jun 05 j 06:59 2°**Ⅲ**22'06 6.23331 AU -1041 Dec 19 j 04:41 8°**х** 15′21 -1035 Jun 17 j 15:54 5°**Ⅲ**08'10 morning rise morning rise -1040 Jan 28 j 07:31 17° ₹ 07'52 -1035 Sep 06 j 07:36 20°**Д**17'26 desc. node asc. node

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1035 in astronomical counting style is the year 1036 BCE in historical counting style. conjunction -1035 Oct 19 j 23:38 23° **II**12'56 -1029 Dec 11 i 05:10 10° ₹ 12'17 retrograde -1035 Dec 18 j 14:43 18°**Ⅲ**12'23 0°15'50 minimum elong -1029 Dec 11 j 05:09 10° ₹ 12'16 opposition 0°00'28 min. Earth dist. -1035 Dec 18 j 02:16 18°**Д**16'33 4.29507 AU -1029 Dec 10 j 21:09 10° ₹07'35 behind sun begin -1034 Feb 17 j 03:15 13°**Д**09'38 -1029 Dec 11 j 13:10 10° ₹ 16'58 direct behind sun end -1034 Jun 18 j 10:34 -1029 Dec 23 j 23:26 13° ₹ 12'04 0ംខಾ morning rise -1034 Jun 24 j 08:37 evening set 1°9517'05 -1028 Mar 20 j 07:21 0°ಕ retrograde -1028 Apr 30 j 17:20 2°**る**35'26 4°514'39 0°30'44 -1034 Jul 07 j 20:56 -1028 Jun 11 j 13:01 conjunction 30°R*x*⁷ -1034 Jul 07 j 20:54 4°9514'38 0°-33'-40 minimum elong 0°30'45 opposition -1028 Jun 30 j 10:30 27°**尽** 38'45 max. Earth dist. -1034 Jul 08 j 03:00 4°9517'58 6.34955 AU min. Earth dist. -1028 Jun 30 j 18:15 27° **₹** 36'14 4.06207 AU morning rise -1034 Jul 21 j 06:50 7°9510'52 direct -1028 Aug 29 j 02:10 22° ₹ 45'00 -1034 Nov 19 j 19:26 24°526'43 -1028 Nov 07 j 05:58 retrograde 0°₹ -1028 Dec 31 j 20:21 11°₹55'45 opposition -1033 Jan 18 j 18:49 19°530'04 1°09'09 evening set min. Earth dist. -1033 Jan 18 j 23:03 19°528'40 4.39150 AU direct -1033 Mar 21 j 12:03 14°9526'38 conjunction -1027 Jan 13 j 18:51 15°**⋜**01'36 0°-42'-30 -1033 Jul 16 j 09:23 $0^{\circ}\Omega$ minimum elong -1027 Jan 13 j 18:48 15°**⋜**01'34 0°42'32 evening set -1033 Jul 26 j 19:20 2°£13′38 max. Earth dist. -1027 Jan 13 j 21:44 15°**⋜**03'19 6.01589 AU morning rise -1027 Jan 26 j 20:04 18°**⋜**08'59 conjunction -1033 Aug 08 j 23:15 5°**Ω**04'55 1°01'16 -1027 Mar 21 j 15:25 minimum elong -1033 Aug 08 j 23:13 5°**Ω**04'54 1°01'17 retrograde -1027 Jun 07 j 10:04 8°≈25'15 max. Earth dist. -1033 Aug 08 j 03:30 4°**Ω**54'11 6.41851 AU opposition -1027 Aug 06 j 16:49 3°**≈**24'32 -1°-28'-57 morning rise -1033 Aug 22 j 00:02 7°**Ω**54'40 min. Earth dist. -1027 Aug 06 i 03:05 3°≈29'06 3.98627 AU -1033 Sep 25 i 04:52 $15^{\circ}\Omega$ -1027 Sep 04 i 04:10 30°Rる retrograde -1033 Dec 20 i 05:06 $24^{\circ}\Omega47'00$ direct -1027 Oct 04 i 03:13 28°₹31'11 opposition -1032 Feb 18 i 12:58 19° Ω 53'32 1°41'50 -1027 Nov 02 j 21:42 0°≈ min. Earth dist. -1032 Feb 19 j 09:56 19° Ω 46'46 4.43000 AU -1026 Jan 24 j 07:00 15°≈ -1032 Apr 10 j 22:59 15°RΩ -1026 Feb 06 i 01:57 18°≈01'49 evening set -1032 Apr 21 j 02:04 $14^{\circ}\Omega$ 50'44 direct -1032 May 01 j 06:16 $15^{\circ}\Omega$ -1026 Feb 19 i 07:54 21°≈12'42 -1°-9'-42 conjunction -1032 Aug 14 j 07:30 -1026 Feb 19 j 07:52 21°≈12'41 1°09'43 minimum elong 0° m -1032 Aug 26 j 01:19 -1026 Feb 20 j 17:40 21°≈33'01 evening set 2° m 31'06 max. Earth dist. 5.97556 AU -1032 Sep 06 j 05:28 4° **m** 57'10 morning rise -1026 Mar 04 j 16:55 24°≈25'15 max. Earth dist. 6.42252 AU -1026 Mar 28 j 15:07 0°**⊁** 5° m 19'00 1°14'28 -1032 Sep 07 j 21:24 -1026 Jul 15 j 02:40 14° ¥ 57'23 conjunction retrograde -1032 Sep 07 j 21:23 5° **m**) 18'59 -1026 Sep 12 j 22:22 9° X 53'18 -1°-50'-23 minimum elong 1°14'28 opposition -1032 Sep 20 j 14:43 8° m 05'35 -1026 Sep 11 j 17:55 10° **★** 02'56 3.98752 AU morning rise min. Earth dist. -1031 Jan 19 j 01:38 25° Mp 02'01 -1026 Nov 09 j 20:14 4° **★** 58'16 retrograde direct opposition -1031 Mar 20 j 17:56 20° m 10'13 1°46'53 evening set -1025 Mar 15 j 08:50 24° **∺**26'47 min. Earth dist. -1031 Mar 22 j 01:49 20° m 00'01 4.40052 AU direct -1031 May 22 j 11:15 15° m 09'01 conjunction -1025 Mar 28 j 22:12 27° **∺** 39'07 -1°-10'-2 -1031 Sep 12 j 06:43 0∘**⊽** minimum elong -1025 Mar 28 j 22:14 27° **∺** 39'08 1°10'03 -1031 Sep 25 j 20:09 2°**£**57'15 max. Earth dist. -1025 Mar 31 j 00:57 28° ₩ 09'08 6.01692 AU evening set max. Earth dist. -1031 Oct 06 j 12:48 5°**£**19'32 -1025 Apr 07 j 20:44 $0^{\circ}\Upsilon$ 6.36113 AU -1025 Apr 11 j 14:25 0°Y52'43 morning rise -1031 Oct 08 j 11:36 5°**2**45'36 1°07'11 -1025 Aug 20 j 06:21 20°**Y**53'36 conjunction retrograde -1031 Oct 08 j 11:38 $-1025 \text{ Oct } 17 \text{ j } 10:56 \quad 15^{\circ} \Upsilon 59'45 \quad 4.06480 \text{ AU}$ minimum elong 5°**-**45'37 1°07'10 min. Earth dist. $-1025 \text{ Oct } 18 \text{ j } 20:20 \quad 15^{\circ} \Upsilon 48'21$ morning rise -1031 Oct 21 i 00:56 8°**₽**33'07 opposition retrograde -1030 Feb 20 i 05:45 26° **2**00'08 direct -1025 Dec 16 j 02:35 10° Υ 50'16 opposition -1030 Apr 22 i 04:23 21° **2**08'17 1°22'05 evening set -1024 Apr 20 j 09:23 29° γ 55'41 min. Earth dist. -1030 Apr 23 i 14:15 20° \(\Omega\) 57'31 4.31075 AU -1024 Apr 20 j 16:57 0°8 direct -1030 Jun 23 j 08:39 16° **2**09'36 -1030 Oct 07 j 14:45 -1024 May 04 i 03:35 3°**8**05'23 0°-44'-11 oom. conjunction -1030 Oct 27 j 00:47 -1024 May 04 j 03:38 3°**8**05'25 evening set 4°M18'46 minimum elong 0°44'12 6.25014 AU 6.12299 AU max. Earth dist. -1030 Nov 06 j 20:02 6°M46′28 max. Earth dist. -1024 May 06 j 03:36 3°**8**33'01 morning rise -1024 May 17 j 22:51 6°815'22 conjunction -1030 Nov 08 j 15:15 7°**M**.11'11 0°40'14 -1024 Jun 27 j 05:53 15°**8** -1030 Nov 08 j 15:17 7°**IL**11'12 0°40'14 retrograde -1024 Sep 22 j 07:39 25°**8**14'59 minimum elong -1030 Nov 21 j 05:21 10°ML03'37 -1024 Nov 20 j 19:47 20°**8**11'25 0°-36'-51 morning rise opposition -1030 Dec 13 j 09:58 15°M min. Earth dist. -1024 Nov 19 j 18:57 20°**8**19'51 4.18738 AU -1023 Jan 19 j 04:34 15°**8**10'22 retrograde -1029 Mar 26 j 11:08 28°M23'22 direct opposition -1029 May 26 j 09:21 23°M29'47 0°31'00 -1023 May 09 j 02:07 Π $^{\circ}0$ min. Earth dist. -1029 May 27 j 11:09 23°M21'31 4.18483 AU evening set -1023 May 26 j 01:44 3°**Ⅱ**43'18 direct -1029 Jul 26 j 11:30 18°M 33'49 -1029 Oct 27 j 06:55 0°**∡** conjunction -1023 Jun 08 j 19:11 6°**I**47'03 0°-4'-7 evening set -1029 Nov 28 j 11:51 7°**∡**13'17 minimum elong -1023 Jun 08 j 19:12 6°**Ⅱ**47'04 0°04'07 -1029 Dec 07 j 09:53 9°**∡**18'37 behind sun begin -1023 Jun 08 j 10:59 6°**Ⅱ**42'30 desc. node max. Earth dist. -1029 Dec 10 j 04:51 9°**₹**57'59 6.12078 AU behind sun end -1023 Jun 09 j 03:24 6°**I**51'38

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1023 in astronomical counting style is the year 1024 BCE in historical counting style. -1023 Jun 10 j 00:37 7°**П**03'30 6.25257 AU direct -1017 Jul 31 j 06:35 23°M24'48 max. Earth dist. -1023 Jun 22 j 11:30 9°**Ⅱ**50′03 -1017 Oct 07 j 00:42 0°**√** morning rise asc. node -1023 Jul 17 j 07:12 15°**Ⅲ**11'59 -1017 Oct 16 j 21:19 1°**х** 49′25 desc. node -1023 Oct 24 j 07:05 27°**Ⅲ**46'27 -1017 Dec 03 j 05:40 12° ₹ 08'26 retrograde evening set -1023 Dec 23 j 00:17 22° **II**46'27 0°24'07 opposition 0°-6'-40 -1023 Dec 22 j 13:28 22° \$\mathbb{\pi}\$50'04 4.31187 AU -1017 Dec 15 j 23:23 15° ₹08'18 min. Earth dist. conjunction -1017 Dec 15 j 23:23 15° ₹08'18 -1022 Feb 21 j 16:04 17°**Ц**43'35 0°06'41 direct minimum elong -1017 Dec 15 j 15:52 15° ₹03'53 -1022 Jun 01 j 14:02 0ಂತಾ behind sun begin evening set -1022 Jun 28 j 23:09 5°9547'18 behind sun end -1017 Dec 16 j 06:54 15° ₹ 12'43 max. Earth dist. -1017 Dec 15 j 02:02 14° ₹ 55'43 6.10522 AU conjunction -1022 Jul 12 j 10:19 8°9543'51 0°35'48 morning rise -1017 Dec 28 j 18:37 18°**₹**'09'09 -1022 Jul 12 j 10:16 -1016 Feb 21 j 17:44 minimum elong 8°9543'50 0°35'49 0°ಕ -1022 Jul 12 j 11:44 -1016 May 05 j 22:45 max. Earth dist. 8°**9**544'38 6.36267 AU retrograde 7°**る**40'19 morning rise -1022 Jul 25 j 19:01 11°539'03 opposition -1016 Jul 05 j 15:15 2°**る**43'01 0°-42'-36 retrograde -1022 Nov 24 j 02:19 28°\$50'10 min. Earth dist. -1016 Jul 05 j 19:21 2°る41'41 4.05021 AU opposition -1021 Jan 23 j 01:54 23°554'03 1°15'09 -1016 Jul 27 j 17:49 30°R 🗷 min. Earth dist. -1021 Jan 23 j 09:31 23°551'33 4.40021 AU direct -1016 Sep 03 j 02:46 27° ₹ 49'25 direct -1021 Mar 25 j 23:16 18°550'40 -1016 Oct 09 j 22:21 -1021 Jun 29 j 11:07 $0^{\circ}\Omega$ evening set -1015 Jan 05 j 19:50 17°る02'45 evening set -1021 Jul 31 j 05:11 $6^{\circ}\Omega 36'05$ max. Earth dist. -1021 Aug 12 j 08:27 9°**£**13′59 6.42199 AU conjunction -1015 Jan 18 j 19:22 20°る09'18 0°-47'-32 minimum elong -1015 Jan 18 j 19:19 20°る09'16 0°47'35 conjunction -1021 Aug 13 i 07:59 9°**Ω**26'46 1°04'15 max. Earth dist. -1015 Jan 19 i 04:19 20°る14'41 6.00887 AU minimum elong -1021 Aug 13 i 07:57 9°**Ω**26'45 1°04'15 morning rise -1015 Jan 31 j 21:25 23°る17'23 morning rise -1021 Aug 26 j 07:37 $12^{\circ}\Omega$ 15'55 -1015 Mar 01 j 21:55 0°≈ -1021 Sep $08 \text{ i } 02:35 \quad 15^{\circ}\Omega$ -1015 Jun 12 j 17:27 13°≈37'05 retrograde -1021 Dec 24 j 11:14 29° Ω 07'37 opposition -1015 Aug 11 j 22:24 retrograde 8°≈35'48 -1°-34'-19 -1020 Feb 22 j 20:27 $24^{\circ}\Omega$ 14'27 $1^{\circ}44'17$ -1015 Aug 11 j 06:40 8°≈41'03 3.98505 AU opposition min. Earth dist. -1020 Feb 23 j 18:59 $24^{\circ}\Omega07'10$ 4.42841 AU -1015 Oct 09 j 06:33 min. Earth dist. direct 3°≈42'20 -1020 Apr 25 j 10:17 19°**Ω**11'46 -1014 Jan 06 j 10:33 15°≈ direct -1020 Jul 28 j 08:34 -1014 Feb 11 j 05:25 23°≈12'35 0° m evening set 6° m 52'59 -1020 Aug 30 j 09:02 evening set -1020 Sep 10 j 11:36 -1014 Feb 24 j 12:11 26°≈23'39 -1°-11'-27 max. Earth dist. 9° m 18'29 6.41594 AU conjunction -1014 Feb 24 j 12:10 26°≈23'38 1°11'28 minimum elong 9° mp 40'48 1°14'41 -1014 Feb 26 j 00:06 26°≈45'13 5.97985 AU -1020 Sep 12 j 04:21 conjunction max. Earth dist. -1020 Sep 12 j 04:20 9°**™**40'48 -1014 Mar 09 j 22:22 29°≈36'27 minimum elong 1°14'41 morning rise -1020 Sep 24 j 20:48 12° m 27'20 -1014 Mar 11 j 13:57 0°**光** morning rise retrograde -1019 Jan 23 j 11:54 29° m 27'05 retrograde -1014 Jul 20 j 03:42 20°**₭**05'27 -1019 Mar 25 j 05:09 24° m 35'24 1°45'10 opposition -1014 Sep 17 j 23:37 15° **★** 01'03 -1°-49'-48 opposition min. Earth dist. -1019 Mar 26 j 14:03 24° m 24'55 4.38941 AU min. Earth dist. -1014 Sep 16 j 17:07 15°**米**11'23 3.99707 AU direct -1019 May 26 j 21:32 19° m/34'34 direct -1014 Nov 14 j 21:14 10°**₭**05'37 -1019 Aug 26 j 01:43 -1013 Mar 20 j 12:06 29° **∺** 30'57 0∘**ত** evening set -1019 Sep 30 j 04:33 7°**£**25'35 -1013 Mar 22 j 13:37 evening set max. Earth dist. -1019 Oct 10 j 19:25 9°**≏**47'28 6.34635 AU -1013 Apr 03 j 02:21 2°**Y**'43'01 -1°-7'-48 conjunction -1019 Oct 12 j 19:33 10°**2**14'22 -1013 Apr 03 i 02:23 2°**Y**43'02 1°07'49 conjunction 1°04'28 minimum elong -1019 Oct 12 j 19:35 10° **2**14'23 -1013 Apr 05 i 05:09 3°**Y**12'59 minimum elong 1°04'27 max. Earth dist. 6.03073 AU -1019 Oct 25 i 08:56 13° \(\Omega\) 02'29 5°Y56'15 morning rise morning rise -1013 Apr 16 j 19:09 -1013 Aug 25 j 01:56 25°**Υ**49'12 -1018 Feb 05 i 04:55 0°M retrograde -1018 Feb 24 j 23:14 0°MJ36'16 min. Earth dist. -1013 Oct 22 j 07:18 20° Υ 54'52 4.08111 AU retrograde -1013 Oct 23 j 15:01 20°**Y**44'02 -1°-23'-6 -1018 Mar 16 j 17:34 30°R ₽ opposition -1018 Apr 26 j 21:41 25° **2**44'15 1°16'16 direct -1013 Dec 21 j 01:11 15° Υ 45'30 opposition -1018 Apr 28 j 06:54 25° **△**33'40 4.29325 AU 0°8 min. Earth dist. -1012 Apr 04 j 01:05 direct -1018 Jun 27 j 23:09 20°**♀**45'57 evening set -1012 Apr 25 j 08:46 4°**8**46'23 -1018 Sep 19 j 13:52 0°M 7°**8**55'27 evening set -1018 Oct 31 j 12:45 8°M59'17 conjunction -1012 May 09 j 03:18 0°-39'-11 -1018 Nov 11 j 11:47 11°**M**-29'43 6.23175 AU max. Earth dist. minimum elong -1012 May 09 j 03:21 7°**8**55'29 0°39'11 max. Earth dist. -1012 May 11 j 02:02 8°**8**22'14 6.14053 AU -1018 Nov 13 j 03:35 11°M 52'34 0°35'06 -1012 May 22 j 22:29 11°**8**04'38 conjunction morning rise -1018 Nov 13 j 03:37 11°ML52'35 -1012 Jun 09 j 11:33 15°8 minimum elong 0°35'05 -1018 Nov 25 j 17:57 14° ML 45'55 -1012 Sep 26 j 18:56 29°855'20 morning rise retrograde -1018 Nov 26 j 18:38 15°M min. Earth dist. -1012 Nov 24 j 08:14 25°**8**00'16 4.20446 AU -1017 Feb 12 j 16:17 0°**∡**¹ opposition -1012 Nov 25 j 07:56 24°**8**52'14 0°-28'-32 retrograde -1017 Mar 31 j 10:34 3°**∡**14'15 direct -1011 Jan 23 j 19:37 19°**8**50'55 -1017 May 18 j 03:39 30°RM -1011 Apr 21 j 10:28 Π °0 -1017 May 31 j 09:07 28° ML20'20 0°22'15 -1011 May 28 j 08:07 7°**Ⅱ**46'53 opposition asc. node min. Earth dist. -1017 Jun 01 j 08:29 28°ML12'51 4.16702 AU -1011 May 30 j 19:57 8°**Ⅱ**19'57 evening set

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1011 in astronomical counting style is the year 1012 BCE in historical counting style. -1011 Jun 13 j 12:43 11°**Д**22'48 0°01'45 -1006 Nov 10 j 21:55 15°M conjunction -1011 Jun 13 j 12:43 11°**Ⅲ**22'48 0°01'46 -1006 Nov 16 j 00:05 16°M 10'19 6.21573 AU minimum elong max. Earth dist. behind sun begin -1011 Jun 13 j 04:23 11°**Ⅱ**18'11 -1011 Jun 13 j 21:02 11°**Ⅲ**27'25 behind sun end conjunction -1006 Nov 17 j 15:10 16°M32'50 0°29'45 -1011 Jun 14 j 12:52 11°**Ⅲ**36'16 -1006 Nov 17 j 15:11 16°M32'51 max. Earth dist. 6.26794 AU minimum elong 0°29'43 -1011 Jun 27 j 04:21 14°**Ⅲ**24'50 -1006 Nov 30 j 06:08 morning rise morning rise 19°**M**⋅27'05 -1011 Sep 20 j 15:30 -1005 Jan 18 j 18:36 0ಂಲ 0°**∡** retrograde -1011 Oct 28 j 15:18 2°9514'33 retrograde -1005 Apr 05 j 09:17 8°**х** 03′21 0°13'21 -1011 Dec 05 j 11:19 30°RⅡ opposition -1005 Jun 05 j 07:58 3°**∡**08'59 opposition -1011 Dec 27 j 08:19 27°**I**I15'08 0°32'02 min. Earth dist. -1005 Jun 06 j 04:40 3°**✗**02'20 4.15105 AU min. Earth dist. -1011 Dec 27 j 00:54 27°**П**17'37 4.32444 AU -1005 Jul 01 j 23:13 30°RML 28°M13'44 -1010 Feb 26 j 05:02 22°**Д**12'08 -1005 Aug 05 j 01:03 direct direct -1010 May 13 j 21:22 0 \circ \odot desc. node -1005 Aug 26 j 21:01 28° M $_{5}9'05$ evening set -1010 Jul 03 j 12:16 10°513'35 -1005 Sep 07 j 18:08 0°**∡**¹ evening set -1005 Dec 07 j 22:07 17° ₹ 01'08 conjunction -1010 Jul 16 j 22:32 13°509'24 0°40'34 minimum elong -1010 Jul 16 j 22:30 13°509'22 0°40'36 conjunction -1005 Dec 20 j 16:36 20° ₹ 01'55 0°-12'-45 max. Earth dist. -1010 Jul 16 j 21:11 13°508'39 6.37157 AU minimum elong -1005 Dec 20 j 16:35 20° ₹01'54 0°12'47 morning rise -1010 Jul 30 j 05:57 16°503'43 behind sun begin -1005 Dec 20 j 11:27 19° ₹ 58'53 -1010 Oct 13 j 06:09 $0^{\circ}\Omega$ behind sun end -1005 Dec 20 j 21:44 20° ₹04'56 retrograde -1010 Nov 28 j 06:59 3°**Ω**11'35 max. Earth dist. -1005 Dec 20 j 00:05 19° ₹ 52'09 6.09073 AU -1009 Jan 13 j 19:10 30°RS morning rise -1004 Jan 02 j 12:28 23° ₹ 03'42 opposition -1009 Jan 27 i 08:26 28°\$15'57 1°20'39 -1004 Feb 02 i 00:41 0°₹ min. Earth dist. -1009 Jan 27 i 17:23 28°513'02 4.40526 AU retrograde -1004 May 11 j 04:22 12°る42'26 direct -1009 Mar 30 j 07:28 23°512'40 opposition -1004 Jul 10 j 18:23 7°**る**44'38 0°-51'-10 -1009 Jun 10 j 03:34 $0^{\circ}\Omega$ min. Earth dist. -1004 Jul 10 j 20:37 7°る43'54 4.03855 AU -1009 Aug 04 j 14:46 10°**Ω**57'39 -1004 Sep 08 j 01:59 2°る51'10 direct evening set evening set -1003 Jan 10 j 18:35 22°**♂**07'29 -1009 Aug 17 j 16:23 $13^{\circ}\Omega47'51$ $1^{\circ}06'50$ conjunction -1009 Aug 17 j 16:20 13°**Ω**47'50 -1003 Jan 23 j 18:51 25°중14'45 0°-52'-13 minimum elong 1°06'50 conjunction -1009 Aug 16 j 13:46 13°**Ω**33'22 6.42280 AU -1003 Jan 23 j 18:49 25°정14'43 0°52'14 max. Earth dist. minimum elong -1009 Aug 23 j 04:58 15°**Ω** -1003 Jan 24 j 06:22 25°₹21'40 max. Earth dist. 6.00089 AU -1003 Feb 05 j 22:08 28°중23'40 -1009 Aug 30 j 14:58 16°**Ω**36'32 morning rise morning rise -1009 Nov 10 j 08:13 0° Mp -1003 Feb 12 j 16:25 0°≈ -1009 Dec 28 j 19:17 3° Mp 28'32 -1003 Apr 28 j 18:38 15°≈ retrograde -1008 Feb 16 j 02:33 30°RΩ -1003 Jun 17 j 21:30 18°≈47'09 retrograde -1008 Feb 27 j 04:44 $28^{\circ}\Omega 35'42$ $1^{\circ}46'07$ -1003 Aug 07 j 16:38 15°R≈ opposition min. Earth dist. -1008 Feb 28 j 05:37 $28^{\circ}\Omega$ 27'41 4.42513 AU min. Earth dist. -1003 Aug 16 j 07:20 13°≈51'39 3.98189 AU direct -1008 Apr 29 j 20:32 23°**Ω**33'17 opposition -1003 Aug 17 j 02:13 13°≈45'20 -1°-38'-59 -1008 Jul 08 j 18:09 0° Mp direct -1003 Oct 14 j 06:53 8°≈51'41 evening set -1008 Sep 03 j 16:50 11° mp 15'34 -1003 Dec 16 j 08:31 15°≈ max. Earth dist. -1008 Sep 14 j 16:46 13° mp 39'58 6.40869 AU -1002 Feb 16 j 08:32 28°≈22'47 evening set -1002 Feb 23 j 03:15 -1008 Sep 16 j 11:23 14° m 03'22 1°14'27 conjunction -1008 Sep 16 j 11:23 14° m 03'22 -1002 Mar 01 j 16:28 1°**)** 34'16 -1°-12'-39 minimum elong conjunction -1008 Sep 29 i 03:14 16° mb 49'57 -1002 Mar 01 i 16:28 morning rise minimum elong 1°\(\dagger)34'15 1°12'41 -1008 Dec 07 i 08:52 0∘**⊽** max. Earth dist. -1002 Mar 03 i 07:24 1°**)** € 57'36 5.98166 AU retrograde -1007 Jan 27 j 22:26 3°**£**53'14 morning rise -1002 Mar 15 i 03:37 4°)(47'24 -1007 Mar 22 i 00:26 30°R M retrograde -1002 Jul 25 i 06:51 25° ** 14'22 -1007 Mar 29 i 17:04 29° m 01'34 1°42'49 min. Earth dist. -1002 Sep 21 j 18:15 20°\(\pi\)20'00 4.00355 AU opposition min. Earth dist. -1007 Mar 31 j 01:47 28° m 51'08 4.37877 AU -1002 Sep 23 j 00:41 20° ★ 09'39 -1°-48'-27 opposition direct -1007 May 31 j 07:44 24° mp 01'04 direct -1002 Nov 19 j 23:41 15° **)** 13'46 -1007 Aug 05 j 21:59 -1001 Mar 05 j 14:03 $0^{\circ}\Upsilon$ 0∘⊽ evening set -1007 Oct 04 j 13:03 11° £ 54'30 evening set -1001 Mar 25 j 16:00 4°**Υ**37'14 -1007 Oct 15 j 05:42 14°**£**17'49 max. Earth dist. 6.33317 AU 7°**Y**49'14 -1°-5'-4 conjunction -1001 Apr 08 j 07:13 7°**Υ**49'16 conjunction -1007 Oct 17 j 03:53 14° **2**43'43 1°01'22 minimum elong -1001 Apr 08 j 07:16 1°05'05 -1007 Oct 17 j 03:55 14°**2**43'44 1°01'22 -1001 Apr 10 j 11:18 8°**Y**19'51 6.04125 AU minimum elong max. Earth dist. -1001 Apr 22 j 00:42 11°**Υ**02'16 -1007 Oct 29 j 17:00 17°**♀**32'18 morning rise morning rise -1001 Aug 07 j 16:21 -1007 Dec 31 j 06:28 0°M 0°8 0°**8**48'21 retrograde -1006 Mar 01 j 15:47 5°M12'14 retrograde -1001 Aug 29 j 21:56 opposition -1006 May 01 j 14:49 0°M20'04 1°09'56 -1001 Sep 20 j 22:02 30°R**Y** min. Earth dist. -1006 May 02 j 23:31 0°ML09'39 4.27811 AU min. Earth dist. -1001 Oct 27 j 02:57 25°**Y**54'07 4.09448 AU -1006 May 04 j 05:53 30°R **≏** opposition -1001 Oct 28 j 10:35 25° **Y** 43'19 -1°-16'-39 direct -1006 Jul 02 j 13:54 25°**£**22'10 direct -1001 Dec 25 j 22:08 20°**Υ**44'22 -1006 Aug 28 j 13:19 -1000 Mar 16 j 07:10 0°8

-1000 Apr 30 j 10:12

9°**8**41'52

evening set

-1006 Nov 05 j 00:15 13°M38'48

evening set

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -1000 in astronomical counting style is the year 1001 BCE in historical counting style. -1000 May 14 i 04:46 12°\(\begin{aligned}
 50'20 0°-33'-49 \end{aligned} -995 Jul 07 i 19:59 0∘**⊽** conjunction minimum elong -1000 May 14 j 04:49 12°**8**50'21 0°33'49 -995 Oct 08 j 19:24 16°**£**18′06 evening set max. Earth dist. -1000 May 15 j 23:46 13°**8**14'53 max. Earth dist. -995 Oct 19 j 10:57 18°**£**41'08 6 15560 AU 6.32512 AU -1000 May 23 j 16:18 15°8 -1000 May 28 j 00:00 15°**8**58'48 -995 Oct 21 j 09:54 19°**2**07'30 0°57'59 morning rise conjunction -1000 Aug 06 j 07:40 -995 Oct 21 j 09:56 0°57'59 Π °0 minimum elong 19°**≏**07'31 -1000 Oct 01 j 08:48 4°**Ⅱ**41'23 -995 Nov 02 j 23:01 retrograde morning rise 21°**≏**56'24 -995 Dec 10 j 19:20 0° M -1000 Nov 27 j 07:06 30°₹**८** 29°**8**38'42 0°-19'-52 opposition -1000 Nov 29 j 22:04 retrograde -994 Mar 06 j 04:29 9°M40'56 min. Earth dist. -1000 Nov 29 j 00:43 29°**8**45'55 4.21971 AU opposition -994 May 06 j 05:22 4°M48'31 1°03'20 4°M38'34 4.26727 AU direct -999 Jan 28 j 14:43 24°**8**37'02 min. Earth dist. -994 May 07 j 12:35 -999 Mar 30 j 19:17 -994 Jun 27 j 04:25 $0^{\circ}\Pi$ 30°ŖΩ -999 Apr 06 j 18:06 -994 Jul 07 j 01:09 29°**♀**50'56 asc. node 1°**Ⅱ**08'48 direct evening set -999 Jun 04 j 16:26 13°**Ⅲ**02'39 -994 Jul 16 j 22:02 $0^{\circ}M$ -994 Oct 26 j 09:09 15°M₀ -999 Jun 18 j 08:45 conjunction 16°**Ⅲ**04'40 0°07'40 evening set -994 Nov 09 j 08:30 18°ML09'34 minimum elong -999 Jun 18 j 08:44 16°**Ⅱ**04'40 0°07'40 max. Earth dist. -994 Nov 20 j 11:23 20°M43'13 6.20312 AU behind sun begin -999 Jun 18 j 01:16 16°**Ⅱ**00'32 behind sun end -999 Jun 18 j 16:13 16°**Ⅱ**08'48 conjunction -994 Nov 21 j 23:43 21°M04'12 0°24'23 max. Earth dist. -999 Jun 19 j 07:08 16°**Ⅱ**17'06 6.28251 AU minimum elong -994 Nov 21 j 23:44 21°ML04'13 0°24'22 morning rise -999 Jul 01 j 23:20 19°**Ⅱ**05'40 morning rise -994 Dec 04 j 14:57 23°M59'09 -999 Aug 24 i 16:49 0ಂತಾ -994 Dec 31 i 13:05 0°**∡**¹ retrograde -999 Nov 02 j 00:22 6°9548'46 retrograde -993 Apr 10 j 05:27 12°**∡** 42'18 opposition -999 Dec 31 i 18:41 1°9549'56 0°39'58 opposition -993 Jun 10 j 02:51 7°**∡**¹47'37 0°04'40 min. Earth dist. -999 Dec 31 i 12:33 1°951'59 4.33743 AU min. Earth dist. -993 Jun 10 j 22:55 7°**х** 41′09 4.13733 AU -998 Jan 14 j 21:41 30°RⅡ desc. node -993 Jul 08 j 20:20 4°**х** 26′22 direct -998 Mar 02 j 18:47 26°**Ⅱ**46'54 -993 Aug 09 j 16:40 2°**₹**'52'38 direct -998 Apr 19 j 01:02 0ಂತಾ evening set -993 Dec 12 j 11:11 21°**х** 43′25 -998 Jul 08 j 03:35 14°9645'34 evening set -993 Dec 25 j 06:11 24° 🗷 45'02 0°-18'-33 conjunction -998 Jul 21 j 12:31 17°5940'26 0°45'14 -993 Dec 25 j 06:10 conjunction minimum elong 24°**₹**′45′01 0°18'35 -993 Dec 24 j 14:45 -998 Jul 21 j 12:29 max. Earth dist. 24°**∡**³35'53 minimum elong 17°9540'25 0°45'14 6.07713 AU -998 Jul 21 j 06:49 -992 Jan 07 j 03:03 27°**∡**¹47'49 max. Earth dist. 17°**©**37'19 6.38221 AU morning rise -998 Aug 03 j 18:50 -992 Jan 16 j 12:56 20°533'51 0°궁 morning rise -998 Sep 19 j 07:19 -992 May 16 j 03:05 0° Ω 17°**る**33'54 retrograde -998 Dec 02 j 15:18 -992 Jul 15 j 17:03 7°**Ω**37'44 12°る35'37 0°-59'-4 retrograde opposition -997 Jan 31 j 17:20 2°**Ω**42'34 1°25'49 -992 Jul 15 j 16:14 12°る35'53 4.02640 AU opposition min. Earth dist. -992 Sep 12 j 19:23 min. Earth dist. -997 Feb 01 j 04:58 2°**Ω**38'47 4.41325 AU direct 7°**る**42'13 -997 Feb 22 j 16:59 30°Rூ evening set -991 Jan 15 j 13:50 27°る02'18 direct -997 Apr 03 j 20:44 27°539'20 -991 Jan 27 j 21:50 0°≈ -997 May 14 j 07:33 $0^{\circ}\Omega$ -997 Aug 07 j 07:47 15°**Ω** -991 Jan 28 j 15:11 0°≈10'26 0°-56'-20 conjunction evening set -997 Aug 09 j 01:22 15°**Ω**22'25 minimum elong -991 Jan 28 j 15:08 0°≈10'25 0°56'21 max. Earth dist. -997 Aug 20 j 22:13 17°**Ω**56′52 6.42764 AU max. Earth dist. -991 Jan 29 j 06:23 0°≈19'35 5.99132 AU -991 Feb 10 j 19:26 3°≈20'15 morning rise -997 Aug 22 j 01:57 -991 Apr 04 i 09:54 conjunction 18°Ω11'57 1°09'06 15°**≈** -997 Aug 22 i 01:55 -991 Jun 23 i 01:00 minimum elong 18°**Ω**11'56 1°09'07 retrograde 23°≈48'28 -997 Sep 03 i 23:14 20°Ω59'57 -991 Aug 21 i 07:02 morning rise min. Earth dist. 18°≈52'51 3.97601 AU -997 Oct 18 i 07:09 -991 Aug 22 j 02:44 0°m opposition 18°≈46'15 -1°-42'-46 -991 Sep 23 i 08:58 retrograde -996 Jan 02 i 01:03 7° m 50'44 15°R≈ -996 Mar 02 j 13:37 2° m 58'07 1°47'23 direct -991 Oct 19 j 06:08 13°≈52'24 opposition min. Earth dist. -996 Mar 03 j 14:43 2° m 50'04 4.42682 AU -991 Nov 14 j 00:19 15°≈ -996 Mar 27 j 08:36 30°R€ -990 Feb 06 j 20:12 0°**₩** -990 Feb 21 j 09:21 -996 May 04 j 05:53 direct 27°**Ω**55'56 evening set 3°**¥**25'47 -996 Jun 11 j 07:41 0°m 15° m 37'20 evening set -996 Sep 08 j 00:23 conjunction -990 Mar 06 j 18:29 6°**)** 37'53 -1°-13'-16 max. Earth dist. -996 Sep 18 j 22:50 18° Mp 01'05 6.40710 AU minimum elong -990 Mar 06 j 18:28 6°₩37'53 1°13'17 max. Earth dist. -990 Mar 08 j 12:19 7°**)**€02'57 5.98004 AU -996 Sep 20 j 18:01 18° m/24'50 1°13'50 morning rise -990 Mar 20 j 06:45 9°**)**51'36 conjunction 0°Υ -996 Sep 20 j 18:01 18° Mp 24'50 1°13'49 -990 Jul 16 j 21:15 minimum elong -996 Oct 03 j 09:09 21° Mp 11'11 -990 Jul 30 j 07:32 0° Y 17'45 morning rise retrograde -996 Nov 15 j 04:04 0∘**⊽** -990 Aug 12 j 15:10 30°**₹** retrograde -995 Feb 01 j 08:28 8°**£**16′08 opposition -990 Sep 27 j 23:24 25°**光**12'55 -1°-46'-18 opposition -995 Apr 03 j 04:10 3°**£**24'30 1°39'52 min. Earth dist. -990 Sep 26 j 15:47 25°**)** 23'41 4.00664 AU min. Earth dist. -995 Apr 04 j 14:07 3°**£**13'42 4.37378 AU direct -990 Nov 24 j 21:18 20°**)** 16'43 -995 May 02 j 17:18 -989 Feb 15 j 04:05 $0^{\circ}\Upsilon$ 30°R M direct -995 Jun 04 j 19:38 28°m/24'19 -989 Mar 30 j 19:09 9°Y39'56 evening set

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -989 in astronomical counting style is the year 990 BCE in historical counting style. 12°Υ52'00 -1°-1'-52 -989 Apr 13 j 11:07 morning rise -984 Oct 07 i 14:59 25° m 33'48 conjunction -989 Apr 13 j 11:10 12°**Y**52′02 1°01'53 -984 Oct 28 j 06:43 0∘**⊽** minimum elong 6.04874 AU -989 Apr 15 j 14:03 13°**Y**21′52 -983 Feb 05 j 18:32 12°**£**42'28 max. Earth dist. retrograde -989 Apr 27 j 05:25 16°**℃**05'01 -983 Apr 07 j 16:24 opposition 7°**♀**50'47 1°36'24 morning rise -989 Jul 03 j 05:14 0°8 -983 Apr 09 j 01:53 7°**♀**40'08 min. Earth dist. 4.36239 AU -989 Sep 03 j 16:40 5°**8**45'21 -983 Jun 09 j 05:11 retrograde direct 2° 2 50'54 -989 Oct 31 j 22:12 0°**8**51'03 4.10541 AU min. Earth dist. evening set -983 Oct 13 j 03:38 20°**£**47'17 -989 Nov 02 j 05:10 max. Earth dist. -983 Oct 23 j 19:46 opposition 0°**8**40'29 -1°-9'-43 23°**≙**11'10 6.31015 AU -989 Nov 07 j 04:08 30°**₹**Υ 25°**Y**41'06 23°**≏**37'12 direct -989 Dec 30 j 19:51 conjunction -983 Oct 25 j 17:57 0°54'12 -988 Feb 21 j 23:27 0°B minimum elong -983 Oct 25 j 17:59 23°**≏**37'14 0°54'12 14°**8**36'06 -983 Nov 07 j 07:05 evening set -988 May 05 j 11:03 morning rise 26°**£**26'45 -988 May 07 j 05:17 15°8 -983 Nov 23 j 08:46 0°M retrograde -982 Mar 10 j 23:43 14° ML18'25conjunction -988 May 19 j 05:56 17°844'04 0°-28'-15 opposition -982 May 10 j 23:24 9°M25'48 0°56'10 minimum elong -988 May 19 j 05:58 17°**8**44'05 0°28'15 min. Earth dist. -982 May 12 j 06:48 9°**™**15'47 4.24944 AU max. Earth dist. -988 May 21 j 00:38 18°**8**08'22 6.16934 AU direct -982 Jul 11 j 16:33 4°M28'32 morning rise -988 Jun 02 j 00:48 20°851'48 -982 Oct 09 j 01:17 15°M -988 Jul 14 j 19:52 $0^{\circ}\Pi$ evening set -982 Nov 13 j 20:51 22°M51'33 6.18398 AU retrograde -988 Oct 05 j 22:56 9°**Ⅱ**26'38 max. Earth dist. -982 Nov 25 j 01:08 25°M26'40 opposition -988 Dec 04 j 11:56 4°**I**I24'25 0°-11'-7 min. Earth dist. -988 Dec 03 i 15:48 4°**П**31'12 4.23471 AU conjunction -982 Nov 26 i 12:25 25°M47'08 0°18'39 -987 Jan 13 j 17:53 30°R8 minimum elong -982 Nov 26 j 12:26 25°M47'09 0°18'39 direct -987 Feb 02 i 08:34 29°822'31 morning rise -982 Dec 09 i 04:23 28°M43'11 asc. node -987 Feb 14 i 01:46 29°**8**35'46 -982 Dec 14 j 18:04 0°**∡**¹ -987 Feb 22 j 04:18 $0^{\circ}II$ -981 Apr 15 j 06:04 17°**∡** 35'39 retrograde -987 Jun 09 j 12:26 17°**Ⅱ**44'30 -981 May 18 j 16:01 15°**₹**'54'28 evening set desc. node -981 Jun 15 j 03:23 12°**х** 40′29 0°-4'-28 opposition -987 Jun 23 j 03:49 20°II45'33 0°13'29 min. Earth dist. -981 Jun 15 j 20:09 12°**渘**³35′04 4.11841 AU conjunction -987 Jun 23 j 03:48 20°II45'32 0°13'30 -981 Aug 14 j 10:54 7°**х** 45'47 minimum elong direct -987 Jun 22 j 23:23 20°**Ⅱ**43'06 -981 Dec 17 j 06:14 26°**х** 41′40 behind sun begin evening set -987 Jun 23 j 08:13 20°**Ⅱ**47'58 behind sun end max. Earth dist. -987 Jun 23 j 22:02 -981 Dec 30 j 02:03 29°**х** 44'21 0°-24'-33 20°**Ⅲ**55'37 6.29741 AU conjunction -987 Jul 06 j 17:35 -981 Dec 30 j 02:01 23°**Ⅱ**45'31 29°**∡**¹44'20 0°24'35 morning rise minimum elong 29°**∡**37′54 6.06018 AU -987 Aug 05 j 01:09 -981 Dec 29 j 15:12 max. Earth dist. 0ಂತಾ -981 Dec 31 j 04:21 -987 Nov 06 j 09:12 0°ಕ retrograde 11°921'53 -986 Jan 05 j 04:36 -980 Jan 11 j 23:47 2°**る**48'16 opposition 6°523'30 0°47'37 morning rise min. Earth dist. -986 Jan 05 j 00:51 6°924'45 4.35095 AU retrograde -980 May 21 j 11:14 22°る42'52 direct -986 Mar 07 j 09:38 1°520'16 opposition -980 Jul 20 j 22:43 17°る44'01 -1°-7'-2 -980 Jul 20 j 19:50 evening set -986 Jul 12 j 17:40 19°9515'47 min. Earth dist. 17°る44'58 4.01319 AU direct -980 Sep 17 j 21:43 12°る50'42 -986 Jul 26 j 01:33 22°509'44 0°49'36 -979 Jan 11 j 05:52 conjunction 0°≈ -986 Jul 26 j 01:31 22°509'42 0°49'37 -979 Jan 20 j 16:15 2°≈14'34 minimum elong evening set max. Earth dist. -986 Jul 25 j 18:06 22°95'40 6.39303 AU -986 Aug 08 j 06:22 25°902'07 -979 Feb 02 j 18:40 5°≈23'33 -1°00'-17 morning rise conjunction -986 Aug 31 i 17:46 -979 Feb 02 i 18:37 $0^{\circ}\Omega$ minimum elong 5°≈23'31 1°00'18 -986 Dec 06 i 20:51 -979 Feb 03 i 14:22 retrograde 12°**Ω**02'04 max. Earth dist. 5°≈35'25 5.98316 AU -985 Feb 05 i 01:12 7°Ω07'18 1°30'28 opposition morning rise -979 Feb 16 i 00:07 8°≈34'14 -985 Feb 05 i 14:15 7°**Ω**03'04 4.42052 AU min. Earth dist. -979 Mar 15 j 16:00 15°**≈** direct -985 Apr 08 j 06:59 2°Ω04'09 retrograde -979 Jun 28 i 09:21 29°≈05'39 -985 Jul 21 j 21:05 15°Ω min. Earth dist. -979 Aug 26 i 10:24 24°≈10'36 3.97446 AU -985 Aug 13 j 10:50 19°**Ω**45'32 opposition -979 Aug 27 j 09:05 24°≈02'59 -1°-45'-56 evening set max. Earth dist. -985 Aug 25 j 02:33 22°**Ω**17'18 6.43035 AU direct -979 Oct 24 j 09:28 19°≈08'58 0°**₩** -978 Jan 19 j 10:41 conjunction -985 Aug 26 j 10:06 22°**Ω**34'28 1°10'59 evening set -978 Feb 26 j 16:12 8°¥42'36 minimum elong -985 Aug 26 j 10:04 22°**Ω**34'27 1°10'59 morning rise -985 Sep 08 j 06:27 25°**Ω**21'57 conjunction -978 Mar 12 j 02:19 11°**)** 54′56 -1°-13′-22 -985 Sep 30 j 03:46 -978 Mar 12 j 02:19 11°\ 54'57 1°13'22 0° m minimum elong -984 Jan 06 j 09:30 12° My 12'33-978 Mar 13 j 22:07 12°**¥**21'08 5.98516 AU retrograde max. Earth dist. -984 Mar 06 j 22:33 7° **m** 20'09 1°48'06 -978 Mar 25 j 15:43 15°**)**€08'52 opposition morning rise $0^{\circ}\Upsilon$ -984 Mar 08 j 02:14 -978 Jun 04 j 09:39 min. Earth dist. 7° **m**) 11'17 4.42474 AU direct -984 May 08 j 17:01 2° m 18'08 retrograde -978 Aug 04 j 09:44 5°**Y**30'42 evening set -984 Sep 12 j 07:25 19° m 59'54 min. Earth dist. -978 Oct 01 j 17:00 0°**Υ**36'46 4.01802 AU max. Earth dist. -984 Sep 23 j 04:16 22°**m** 23'03 6.40015 AU opposition -978 Oct 03 j 01:43 0°**Y**25'36 -1°-43'-15 -978 Oct 06 j 04:55 30°**₹** -984 Sep 25 j 00:29 22° m/47'24 1°12'49 direct -978 Nov 30 j 01:00 25°**)**€28'58 conjunction

-984 Sep 25 j 00:30

minimum elong

22°M/47'25

1°12'49

-977 Jan 22 j 16:46

 $0^{\circ}\Upsilon$

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 38 Attention, astronomical year style is used: The year -977 in astronomical counting style is the year 978 BCE in historical counting style.

Attention, astronom	ical year style is used: T		n astronomical cour	nting style is the year 9	978 BCE in historical co	unting style.	
evening set	-977 Apr 05 j 00:44	14° Ƴ 48'21		retrograde	-971 Feb 10 j 08:02	17° ≏ 07'27	
				opposition	-971 Apr 12 j 04:41	12° ≙ 15'48	1°32'26
conjunction	-977 Apr 18 j 17:32	18° Ƴ 00'00	0°-58'-11	min. Earth dist.	-971 Apr 13 j 15:32	12° ≙ 04'43	4.34531 AU
minimum elong	-977 Apr 18 j 17:36	18° Y ′00′02	0°58'11	direct	-971 Jun 13 j 15:54	7° ≙ 16'15	
max. Earth dist.	-977 Apr 20 j 22:19	18° Ƴ 30'48	6.06552 AU	evening set	-971 Oct 17 j 11:49	25° ≙ 17'12	
morning rise	-977 May 02 j 12:05	21° Y 12'21		max. Earth dist.	-971 Oct 28 j 04:45	27° ≙ 42'11	6.28973 AU
	-977 Jun 11 j 09:34	9° 8					
retrograde	-977 Sep 08 j 12:36	10° 8 43'01		conjunction	-971 Oct 30 j 02:18	28° ≙ 07'59	0°50'07
min. Earth dist.	-977 Nov 05 j 18:25	5° 8 48'33	4.12557 AU	minimum elong	-971 Oct 30 j 02:21	28° ≙ 08'00	0°50'05
opposition	-977 Nov 07 j 00:20	5° 8 38'21	-1°-2'-16		-971 Nov 07 j 08:05	0° M	
direct	-976 Jan 04 j 19:16	0° 8 38'35		morning rise	-971 Nov 11 j 15:40	0°M58'28	
	-976 Apr 20 j 07:55	15° 8			-970 Jan 22 j 11:58	15° M ₊	
evening set	-976 May 10 j 11:17	19° 8 27'35		retrograde	-970 Mar 15 j 19:03	18°M59'25	
					-970 May 08 j 18:36	15°RM	
conjunction	-976 May 24 j 05:50	22° 8 34'29	0°-22'-34	opposition	-970 May 15 j 19:01	14°ML06'33	0°48'35
minimum elong	-976 May 24 j 05:51	22° 8 34'30	0°22'35	min. Earth dist.	-970 May 17 j 00:03	13°ML57'17	4.22707 AU
max. Earth dist.	-976 May 25 j 21:17	22° 8 56'49	6.19107 AU	direct	-970 Jul 16 j 05:58	9° M 09'46	
morning rise	-976 Jun 07 j 00:23	25° 8 41'04			-970 Sep 18 j 08:05	15° M ₊	
	-976 Jun 26 j 14:03	Π° 0		evening set	-970 Nov 18 j 11:15	27° M .38'47	
retrograde	-976 Oct 10 j 08:47	14° Ⅱ 05'35			-970 Nov 28 j 14:23	0° ∡ ¹	
opposition	-976 Dec 08 j 23:36	9° Ⅱ 03'48	0°-2'-32	max. Earth dist.	-970 Nov 29 j 19:21	0° ∡ 16'54	6.16172 AU
min. Earth dist.	-976 Dec 08 j 05:17	9° Ⅱ 09'59	4.25594 AU				
asc. node	-976 Dec 25 j 09:30	6° Ⅱ 55'41		conjunction	-970 Dec 01 j 03:17	0° ∡ ³35'31	0°12'45
direct	-975 Feb 07 j 01:06	4° Ⅱ 01'35		minimum elong	-970 Dec 01 j 03:18	0° ∡ ³35'31	0°12'44
evening set	-975 Jun 14 j 05:11	22° Ⅱ 18′05		behind sun begin	-970 Nov 30 j 22:09	0° ≯ 32'32	
Ü	3			behind sun end	-970 Dec 01 j 08:26	0° ∡ ³38'31	
conjunction	-975 Jun 27 j 19:44	25° Ⅱ 17'56	0°19'03	morning rise	-970 Dec 13 j 19:57	3° ∡ ³32'49	
minimum elong	-975 Jun 27 j 19:43	25° Ⅱ 17'56	0°19'04	desc. node	-969 Mar 28 j 02:39	21° ∡ ¹45′01	
max. Earth dist.	-975 Jun 28 j 10:46	25° Ⅱ 26'14	6.31654 AU	retrograde	-969 Apr 20 j 11:42	22° ∡ ³35'52	
morning rise	-975 Jul 11 j 08:14	28° I I16'36		opposition	-969 Jun 20 j 06:44	17° ×7 40'16	0°-13'-46
	-975 Jul 19 j 06:12	0ංම 		min. Earth dist.	-969 Jun 20 j 21:19	17° ∡ ³35'33	4.09802 AU
retrograde	-975 Nov 10 j 15:17	15° © 45'28		direct	-969 Aug 19 j 09:55	12° ∡ ¹45'55	
opposition	-974 Jan 09 j 11:24	10°5947'40	0°54'42		-969 Dec 14 j 14:11	0°ರ	
min. Earth dist.	-974 Jan 09 j 10:25	10°9547'59	4.36645 AU	evening set	-969 Dec 22 j 04:25	1°る47'22	
direct	-974 Mar 11 j 20:51	5°9544'23	1.500 15 710	evening set	707 Bee 22 j 01.25	1 0 17 22	
evening set	-974 Jul 17 j 03:50	23°936'20		conjunction	-968 Jan 04 j 01:07	4° ට 51'10	0°-30'-28
evening sec	57. Vai 17 j 05.00	23 23020		minimum elong	-968 Jan 04 j 01:05	4° ට 51108	0°30'30
conjunction	-974 Jul 30 i 10:24	26°529'20	0°53'33	max. Earth dist.	-968 Jan 03 j 19:01	4° ට 47'31	6.04367 AU
minimum elong	-974 Jul 30 j 10:21	26°\$29'19		morning rise	-968 Jan 16 j 23:55	7° る 56'17	0.0 1507 110
max. Earth dist.	-974 Jul 29 j 21:42		6.40347 AU	retrograde	-968 May 26 j 20:28	27° ප 58'40	
morning rise	-974 Aug 12 j 14:06	29°520'50		opposition	-968 Jul 26 j 06:37	22° る 59'17	-1°-14'-35
	-974 Aug 15 j 14:41	0°N		min. Earth dist.	-968 Jul 25 j 23:40	23° ට 01'34	4.00258 AU
	-974 Nov 12 j 05:23	15° Ω		direct	-968 Sep 23 j 00:46	18° ට 06'03	
retrograde	-974 Dec 11 j 01:07	16° Ω 17'38			-968 Dec 24 j 05:26	0° ≈	
	-973 Jan 08 j 19:59	15°RΩ		evening set	-967 Jan 25 j 21:08	7° ≈ 32'34	
opposition	-973 Feb 09 j 06:24	11° Ω 23'16	1°34'29	3	,		
min. Earth dist.	-973 Feb 09 j 22:26		4.42547 AU	conjunction	-967 Feb 08 j 00:29	10° ≈ 42'10	-1°-3'-47
direct	-973 Apr 12 j 14:56	6° Ω 20'09		minimum elong	-967 Feb 08 j 00:27	10° ≈ 42'09	1°03'49
	-973 Jul 04 j 06:34	15° Ω		max. Earth dist.	-967 Feb 09 j 00:03	10°≈56'22	5.97912 AU
evening set	-973 Aug 17 j 16:58	24° Ω 00′50		morning rise	-967 Feb 21 j 07:08	13° ≈ 53'32	
max. Earth dist.	-973 Aug 29 j 06:04		6.42929 AU		-967 Feb 25 j 22:46	15° ≈	
	> / C - 2 G _ 2 . J * * * * * *				-967 May 10 j 07:11	0°) €	
conjunction	-973 Aug 30 j 15:22	26° Ω 49'24	1°12'26	retrograde	-967 Jul 03 j 16:46	4°) € 26'04	
minimum elong	-973 Aug 30 j 15:21	26° Ω 49'24			-967 Aug 28 j 01:48	30°R≈	
morning rise	775 1145 50 j 15.21	20 001721	1 12 23		20 / 11ug 20 / 01.10		10 40! 12
morning rise	-973 Sep. 12 i 10:35	29°Ω36'31		opposition	-967 Sep. 01 i 16:14	29°≈≈22'50	
	-973 Sep 12 j 10:35	29° Ω 36'31		opposition min_Earth_dist	-967 Sep 01 j 16:14	29°≈22'50 29°≈31'21	-1°-48'-13
retrograde	-973 Sep 14 j 06:01	0° m)		min. Earth dist.	-967 Aug 31 j 14:58	29° ≈ 31'21	3.97746 AU
retrograde	-973 Sep 14 j 06:01 -972 Jan 10 j 14:31	0° m) 16° m) 28'30	1°48'15	• •	-967 Aug 31 j 14:58 -967 Oct 29 j 15:35	29°≈31'21 24°≈28'30	
opposition	-973 Sep 14 j 06:01 -972 Jan 10 j 14:31 -972 Mar 11 j 05:24	0° My 16° My 28'30 11° My 36'22		min. Earth dist. direct	-967 Aug 31 j 14:58 -967 Oct 29 j 15:35 -967 Dec 28 j 02:26	29°≈31'21 24°≈28'30 0°¥	
opposition min. Earth dist.	-973 Sep 14 j 06:01 -972 Jan 10 j 14:31 -972 Mar 11 j 05:24 -972 Mar 12 j 10:11	0° m, 16° m, 28'30 11° m, 36'22 11° m, 27'10	1°48'15 4.41788 AU	min. Earth dist.	-967 Aug 31 j 14:58 -967 Oct 29 j 15:35	29°≈31'21 24°≈28'30	
opposition min. Earth dist. direct	-973 Sep 14 j 06:01 -972 Jan 10 j 14:31 -972 Mar 11 j 05:24 -972 Mar 12 j 10:11 -972 May 12 j 23:01	0°m/ 16°m/28'30 11°m/36'22 11°m/27'10 6°m/34'37		min. Earth dist. direct evening set	-967 Aug 31 j 14:58 -967 Oct 29 j 15:35 -967 Dec 28 j 02:26 -966 Mar 03 j 23:29	29°≈31'21 24°≈28'30 0°₩ 14°₩00'36	3.97746 AU
opposition min. Earth dist. direct evening set	-973 Sep 14 j 06:01 -972 Jan 10 j 14:31 -972 Mar 11 j 05:24 -972 Mar 12 j 10:11 -972 May 12 j 23:01 -972 Sep 16 j 13:03	0° my 16° my 28'30 11° my 36'22 11° my 27'10 6° my 34'37 24° my 18'32	4.41788 AU	min. Earth dist. direct evening set conjunction	-967 Aug 31 j 14:58 -967 Oct 29 j 15:35 -967 Dec 28 j 02:26 -966 Mar 03 j 23:29 -966 Mar 17 j 10:46	29°≈31'21 24°≈28'30 0°₩ 14°₩00'36	3.97746 AU -1°-12'-51
opposition min. Earth dist. direct	-973 Sep 14 j 06:01 -972 Jan 10 j 14:31 -972 Mar 11 j 05:24 -972 Mar 12 j 10:11 -972 May 12 j 23:01	0°m/ 16°m/28'30 11°m/36'22 11°m/27'10 6°m/34'37	4.41788 AU	min. Earth dist. direct evening set conjunction minimum elong	-967 Aug 31 j 14:58 -967 Oct 29 j 15:35 -967 Dec 28 j 02:26 -966 Mar 03 j 23:29 -966 Mar 17 j 10:46 -966 Mar 17 j 10:47	29°≈31'21 24°≈28'30 0° ★ 14° ★00'36 17° ★12'59 17° ★12'59	3.97746 AU -1°-12'-51 1°12'52
opposition min. Earth dist. direct evening set max. Earth dist.	-973 Sep 14 j 06:01 -972 Jan 10 j 14:31 -972 Mar 11 j 05:24 -972 Mar 12 j 10:11 -972 May 12 j 23:01 -972 Sep 16 j 13:03 -972 Sep 27 j 06:44	0° m/ 16° m/28'30 11° m/36'22 11° m/27'10 6° m/34'37 24° m/18'32 26° m/40'27	4.41788 AU 6.38786 AU	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-967 Aug 31 j 14:58 -967 Oct 29 j 15:35 -967 Dec 28 j 02:26 -966 Mar 03 j 23:29 -966 Mar 17 j 10:46 -966 Mar 17 j 10:47 -966 Mar 19 j 10:37	29°≈31'21 24°≈28'30 0°₩ 14°₩00'36 17°₩12'59 17°₩12'59 17°₩41'30	3.97746 AU -1°-12'-51
opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-973 Sep 14 j 06:01 -972 Jan 10 j 14:31 -972 Mar 11 j 05:24 -972 Mar 12 j 10:11 -972 May 12 j 23:01 -972 Sep 16 j 13:03 -972 Sep 27 j 06:44 -972 Sep 29 j 05:26	0° my 16° my 28'30 11° my 36'22 11° my 27'10 6° my 34'37 24° my 18'32 26° my 40'27 27° my 06'16	4.41788 AU 6.38786 AU 1°11'25	min. Earth dist. direct evening set conjunction minimum elong	-967 Aug 31 j 14:58 -967 Oct 29 j 15:35 -967 Dec 28 j 02:26 -966 Mar 03 j 23:29 -966 Mar 17 j 10:47 -966 Mar 17 j 10:47 -966 Mar 19 j 10:37 -966 Mar 31 j 00:55	29°≈31'21 24°≈28'30 0°₩ 14°₩00'36 17°₩12'59 17°₩12'59 17°₩41'30 20°₩26'48	3.97746 AU -1°-12'-51 1°12'52
opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-973 Sep 14 j 06:01 -972 Jan 10 j 14:31 -972 Mar 11 j 05:24 -972 Mar 12 j 10:11 -972 May 12 j 23:01 -972 Sep 16 j 13:03 -972 Sep 27 j 06:44 -972 Sep 29 j 05:26 -972 Sep 29 j 05:27	0° my 16° my 28'30 11° my 36'22 11° my 27'10 6° my 34'37 24° my 18'32 26° my 40'27 27° my 06'16 27° my 06'16	4.41788 AU 6.38786 AU 1°11'25	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-967 Aug 31 j 14:58 -967 Oct 29 j 15:35 -967 Dec 28 j 02:26 -966 Mar 03 j 23:29 -966 Mar 17 j 10:46 -966 Mar 17 j 10:47 -966 Mar 19 j 10:37 -966 Mar 31 j 00:55 -966 May 12 j 15:51	29°≈31'21 24°≈28'30 0° ℋ 14° ℋ00'36 17° ℋ12'59 17° ℋ12'59 17° ℋ41'30 20° ℋ26'48 0° Ƴ	3.97746 AU -1°-12'-51 1°12'52
opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-973 Sep 14 j 06:01 -972 Jan 10 j 14:31 -972 Mar 11 j 05:24 -972 Mar 12 j 10:11 -972 May 12 j 23:01 -972 Sep 16 j 13:03 -972 Sep 27 j 06:44 -972 Sep 29 j 05:26	0° my 16° my 28'30 11° my 36'22 11° my 27'10 6° my 34'37 24° my 18'32 26° my 40'27 27° my 06'16	4.41788 AU 6.38786 AU 1°11'25	min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-967 Aug 31 j 14:58 -967 Oct 29 j 15:35 -967 Dec 28 j 02:26 -966 Mar 03 j 23:29 -966 Mar 17 j 10:47 -966 Mar 17 j 10:47 -966 Mar 19 j 10:37 -966 Mar 31 j 00:55	29°≈31'21 24°≈28'30 0°₩ 14°₩00'36 17°₩12'59 17°₩12'59 17°₩41'30 20°₩26'48	3.97746 AU -1°-12'-51 1°12'52

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -966 in astronomical counting style is the year 967 BCE in historical counting style. 5°**Y**'37'07 -1°-39'-23 -966 Oct 08 i 03:02 conjunction -960 Oct 03 i 12:31 1°**♀**30'37 1°09'35 opposition minimum elong direct -966 Dec 05 i 04:53 0°Y40'03 -960 Oct 03 i 12:32 1°**£**30'38 1°09'35 -965 Apr 10 j 05:45 19° Y 54'43 -960 Oct 16 j 02:16 4°**£**17'44 evening set morning rise -959 Feb 14 j 21:25 21°**♀**37'54 retrograde 16°**△**46'12 1°27'49 -965 Apr 23 j 22:57 23°Y05'43 0°-54'-5 -959 Apr 16 j 19:18 conjunction opposition -965 Apr 23 j 23:00 23°**Y**05'45 0°54'05 -959 Apr 18 j 05:25 minimum elong min. Earth dist. 16°**♀**35'21 4.32929 AU -965 Apr 26 j 02:15 23°**Y**35'31 -959 Jun 18 j 02:52 max. Earth dist. 6.08402 AU direct 11°**≏**47'05 -959 Oct 21 j 22:16 -965 May 07 j 17:56 26°**Y**17′22 morning rise evening set 29°**£**51'59 -965 May 24 j 02:08 0° 8 -959 Oct 22 j 12:28 0°M -965 Aug 24 j 13:44 15°8 max. Earth dist. -959 Nov 01 j 15:54 2°M18'03 6.27166 AU retrograde -965 Sep 13 j 04:49 15°**8**37'57 -965 Oct 02 j 17:03 -959 Nov 03 j 12:38 2°M43'30 0°45'38 15°R₩ conjunction -965 Nov 11 j 17:47 10°**8**33'34 0°-54'-27 -959 Nov 03 j 12:40 opposition minimum elong 2°M43'31 0°45'37 min. Earth dist. -965 Nov 10 j 12:30 10°**8**43'33 4.14582 AU morning rise -959 Nov 16 j 02:22 5°M34'53 direct -964 Jan 09 j 16:24 5°**8**33'22 -959 Dec 30 j 08:25 15°M -964 Apr 01 j 18:43 15°8 retrograde -958 Mar 20 j 17:59 23°M44'12 evening set -964 May 15 j 10:18 24°**8**16'52 opposition -958 May 20 j 16:28 18°M51'03 0°40'33 min. Earth dist. -958 May 21 j 20:18 18°ML42'08 4.20821 AU conjunction -964 May 29 j 04:37 27°**8**22'46 0°-16'-46 -958 Jun 24 j 08:01 15°RM minimum elong -964 May 29 j 04:39 27°**8**22'46 0°16'46 direct -958 Jul 21 j 00:05 13°M54'38 max. Earth dist. -964 May 30 j 16:51 27°**8**43'12 6.21159 AU -958 Aug 16 j 12:46 15°M -964 Jun 09 i 20:07 $\Pi^{\circ}0$ -958 Nov 12 i 08:51 0°×7 morning rise -964 Jun 11 i 22:31 0°**Ⅲ**28'12 evening set -958 Nov 23 j 02:44 2°**х** 28′16 retrograde -964 Oct 14 i 20:29 18°**Ⅱ**43'20 asc. node -964 Nov 04 i 09:24 18°**Ⅱ**01'30 conjunction -958 Dec 05 i 19:22 5°**х** 26′00 0°06'42 -964 Dec 13 i 10:46 13°**I**I42'07 0°06'01 minimum elong -958 Dec 05 i 19:23 5°**₹**'26'00 0°06'41 opposition min. Earth dist. -964 Dec 12 j 19:32 13°**Ⅱ**47'14 4.27484 AU behind sun begin -958 Dec 05 j 11:53 5°**х** 21′38 -963 Feb 11 j 17:36 8°**Ⅲ**39'39 behind sun end -958 Dec 06 j 02:53 5°**х** 30′22 direct -963 Jun 18 j 21:30 26°II51'37 max. Earth dist. -958 Dec 04 j 15:22 5°**х**¹09'37 6.14402 AU evening set 8°**∡**¹24'22 -958 Dec 18 j 12:42 morning rise -957 Feb 04 j 16:08 -963 Jul 02 j 11:05 29°II50'25 0°24'32 conjunction desc. node 18°**≯**52'02 -963 Jul 02 j 11:03 -957 Apr 25 j 15:13 minimum elong 29° II 50′24 0°24′32 retrograde 27°**х** 36′01 22°**₹**39'57 0°-23'00 max. Earth dist. -963 Jul 02 j 21:51 -957 Jun 25 j 10:04 29°**I**56′20 6.33235 AU opposition -963 Jul 03 j 04:30 -957 Jun 25 j 21:07 min. Earth dist. 22°**✗**36'23 4.08324 AU 0°9 -963 Jul 15 j 22:28 2°9547'57 -957 Aug 24 j 07:46 17°**∡**¹45'56 morning rise direct -963 Nov 14 j 20:35 -957 Nov 27 j 06:27 0°₹ retrograde 20°9510'40 -962 Jan 13 j 18:37 -957 Dec 27 j 02:12 6°**る**50'52 opposition 15°513'21 1°01'32 evening set min. Earth dist. -962 Jan 13 j 19:51 15°512'57 4.37839 AU direct -962 Mar 16 j 07:14 10°909'58 conjunction -956 Jan 08 j 23:34 9°る55'26 0°-36'-6 -962 Jul 21 j 14:49 27°959'35 minimum elong -956 Jan 08 j 23:31 9°る55'25 0°36'07 evening set -962 Jul 30 j 21:03 $0^{\circ}\Omega$ max. Earth dist. -956 Jan 08 j 21:24 9°**る**54'09 6.03306 AU -956 Jan 21 j 23:23 13°る01'27 morning rise -962 Aug 03 j 20:15 0°Ω51'48 0°57'14 -956 Apr 16 j 11:27 conjunction 0°≈ -962 Aug 03 j 20:12 0°Ω51'47 0°57'15 -956 Jun 01 j 03:16 3°≈09'16 minimum elong retrograde max. Earth dist. -962 Aug 03 j 04:34 0°Ω43'16 6.41066 AU -956 Jul 17 j 05:24 30°Ŗる -962 Aug 16 j 22:35 3°**Ω**42'28 -956 Jul 31 j 12:20 28°る09'15 -1°-21'-24 morning rise opposition -962 Oct 13 i 12:54 -956 Jul 31 i 02:09 15°€ min. Earth dist. 28°る12'37 3.99737 AU -962 Dec 15 i 06:50 -956 Sep 28 i 03:37 retrograde 20°**Ω**37'06 direct 23°る15'58 -961 Feb 13 i 13:02 -956 Dec 03 i 16:27 opposition 15°Ω43'10 1°38'04 0°≈ min. Earth dist. -961 Feb 14 i 07:28 15°Ω37'12 4.42767 AU -955 Jan 30 j 23:41 12°≈43'20 evening set -961 Feb 19 j 02:47 15°RΩ -955 Feb 09 j 11:28 15°**≈** direct -961 Apr 16 j 23:40 10°**Ω**40′10 -961 Jun 12 j 05:45 15°**Ω** conjunction -955 Feb 13 j 04:11 15°≈53'22 -1°-6'-41 -961 Aug 22 j 00:48 -955 Feb 13 i 04:09 evening set 28°**Ω**20'47 minimum elong 15°≈53'21 1°06'42 -955 Feb 14 j 09:12 -961 Aug 29 j 15:29 0° m max. Earth dist. 16°≈10'50 5.97970 AU -955 Feb 26 j 11:42 max. Earth dist. -961 Sep 02 j 08:48 0° Mp 48'42 6.42608 AU morning rise 19°≈05'06 0°**)**€ -955 Apr 16 j 07:32 -961 Sep 03 j 22:08 1° m 09'04 1°13'31 -955 Jul 08 j 21:41 9°****36'39 conjunction retrograde -961 Sep 03 j 22:07 1°M)09'04 1°13'31 -955 Sep 06 j 19:18 4°**升**33'02 -1°-49'-31 minimum elong opposition -961 Sep 16 j 16:36 3° m 55'59 min. Earth dist. -955 Sep 05 j 16:58 4°**¥**41'56 3.98396 AU morning rise -960 Jan 15 j 00:02 20° m/49'59 -955 Oct 20 j 07:46 30°R≈ retrograde -960 Mar 15 j 14:52 opposition 15° m 58'00 1°47'50 direct -955 Nov 03 j 18:05 29°≈38'25 min. Earth dist. -960 Mar 16 j 21:24 15° Mp 48'13 4.40968 AU -955 Nov 18 j 04:49 0°**∀** direct -960 May 17 j 08:29 10° Mp 56'26evening set -954 Mar 09 j 03:20 19°**)**€08'06 evening set -960 Sep 20 j 20:26 28° m/42'34 -960 Sep 26 j 16:55 0∘**ত** -954 Mar 22 j 15:24 22°\(\)20'21 -1°-11'-47 conjunction max. Earth dist. -960 Oct 01 j 14:18 1°**2**04'59 6.37531 AU -954 Mar 22 j 15:25 22°\ 20'22 1°11'48 minimum elong

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -954 in astronomical counting style is the year 955 BCE in historical counting style. -954 Mar 24 i 15:37 22°**)**(48'59 6.00609 AU max. Earth dist. min. Earth dist. -948 Mar 21 j 08:28 20° m 11'45 4.40094 AU 25°**)** 34'01 15° m 20'35 -954 Apr 05 j 06:33 direct -948 May 21 j 18:13 morning rise -954 Apr 24 j 10:11 $0^{\circ}\Upsilon$ -948 Sep 10 j 17:02 0∘**⊽** -954 Aug 14 j 08:47 15°**Y**42'37 -948 Sep 25 j 04:20 3°**£**08'47 retrograde evening set 10°**Ƴ**37'24 -1°-34'-54 -954 Oct 12 j 23:47 -948 Oct 05 j 20:17 max. Earth dist. 5°**₽**30'39 opposition 6.36344 AU -954 Oct 11 j 14:32 10°**Y**48'45 4.04792 AU min. Earth dist. 5°**Ƴ**39'54 -954 Dec 10 j 03:11 -948 Oct 07 j 19:50 5° 257'06 1°07'20 direct conjunction 24°Y50'09 -948 Oct 07 j 19:52 -953 Apr 15 j 06:29 1°07'18 evening set minimum elong 5°**£**57'07 -948 Oct 20 j 09:30 morning rise 8°**£**44'38 -947 Feb 19 j 12:38 26°**♀**10'15 conjunction -953 Apr 29 j 00:12 28°**Υ**00'36 0°-49'-44 retrograde -953 Apr 29 j 00:15 minimum elong 28°**Y**′00′37 0°49'44 opposition -947 Apr 21 j 10:36 21°**≏**18′24 1°22'38 -953 May 01 j 01:43 28°**Υ**29'15 6.10153 AU min. Earth dist. -947 Apr 22 j 20:19 max. Earth dist. 21°**₽**07'40 4.31488 AU -953 May 07 j 14:51 -947 Jun 22 j 15:57 0° 8 direct 16°**♀**19'35 -947 Oct 06 j 05:15 morning rise -953 May 12 j 19:18 1°811'31 0°M -953 Jul 19 j 10:30 15°₩ evening set -947 Oct 26 j 08:12 4°M27'35 retrograde -953 Sep 17 j 19:58 20°**8**23'02 max. Earth dist. -947 Nov 06 j 05:00 6°M55'55 6.25593 AU min. Earth dist. -953 Nov 15 j 05:11 15°**8**28'05 4.16371 AU opposition -953 Nov 16 j 07:47 15°819'02 0°-46'-34 conjunction -947 Nov 07 j 22:50 7°M19'48 0°40'51 -953 Nov 18 j 15:47 15°R₩ minimum elong -947 Nov 07 j 22:53 7°M19'49 0°40'51 direct -952 Jan 14 j 11:14 10°818'29 morning rise -947 Nov 20 j 12:43 10°M11'56 -952 Mar 10 j 14:48 15°8 -947 Dec 12 j 02:46 15°M₁ evening set -952 May 20 i 05:57 28°857'35 retrograde -946 Mar 25 j 14:03 28°M28'44 -952 May 24 j 21:30 $\Pi^{\circ}0$ opposition -946 May 25 i 13:27 23°M35'14 0°32'14 min. Earth dist. -946 May 26 j 15:16 23°M26'59 4.19201 AU conjunction -952 Jun 03 i 00:00 2°**I**02'39 0°-11'-2 direct -946 Jul 25 j 16:50 18°MJ39'13 minimum elong -952 Jun 03 i 00:01 2°II02'40 0°11'02 -946 Oct 26 j 04:59 0°**√** behind sun begin -952 Jun 02 i 17:52 1°**I**I59'13 -946 Nov 27 j 17:29 7°**҂**16'27 evening set -952 Jun 03 j 06:10 2°II06'06 max. Earth dist. -946 Dec 09 j 08:32 9°**×**759'47 6.12861 AU behind sun end -952 Jun 04 j 09:23 2°**Ⅱ**21'24 6.22855 AU max. Earth dist. -952 Jun 16 j 17:19 5°**Ⅱ**07'06 -946 Dec 10 j 10:26 10°**∡**14'59 0°00'36 morning rise conjunction -952 Sep 15 j 12:39 -946 Dec 10 j 10:26 21°**Ⅲ**27'32 10°**∡**14'59 0°00'35 asc. node minimum elong -952 Oct 19 j 03:32 -946 Dec 10 j 02:25 10°**∡**10′18 retrograde 23°**Ⅱ**14'31 behind sun begin 18°**Ⅱ**13'52 0°14'18 -946 Dec 10 j 18:26 10°**∡**19'40 -952 Dec 17 j 19:22 opposition behind sun end -952 Dec 17 j 05:41 -946 Dec 15 j 17:38 min. Earth dist. 18°**Ⅱ**18'28 4.28959 AU 11°×29'39 desc. node -951 Feb 16 j 05:08 -946 Dec 23 j 04:35 13°**Ⅱ**11'16 13°**҂**14′21 direct morning rise -945 Mar 20 j 12:53 -951 Jun 17 j 07:54 0°ಕ 0ಂತಾ -945 Apr 30 j 17:47 -951 Jun 23 j 11:55 1°9520'22 2°**る**33'53 evening set retrograde -945 Jun 11 j 08:33 30°₹**҂**7 -945 Jun 30 j 11:53 4°518'17 0°29'44 conjunction -951 Jul 07 j 00:30 opposition 27°**∡**137'15 0°-32'-1 -951 Jul 07 j 00:27 -945 Jun 30 j 20:06 minimum elong 4°518'16 0°29'44 min. Earth dist. 27°**✗**34'35 4.06975 AU 22°**х** 43'21 max. Earth dist. -951 Jul 07 j 06:42 4°921'42 6.34393 AU direct -945 Aug 29 j 05:48 morning rise -951 Jul 20 j 10:49 7°9514'55 -945 Nov 07 j 14:38 0°る retrograde -951 Nov 19 j 03:26 24°533'10 -945 Dec 31 j 22:48 11°**る**51'36 evening set -950 Jan 18 j 01:08 19°536'27 1°07'54 opposition min. Earth dist. -950 Jan 18 j 05:36 19°534'59 4.38617 AU conjunction -944 Jan 13 j 21:08 14°る57'00 0°-41'-26 -950 Mar 20 j 17:36 14°533'06 -944 Jan 13 j 21:05 14°**る**56'58 0°41'28 direct minimum elong -950 Jul 15 i 00:06 -944 Jan 14 i 00:11 $0^{\circ}\Omega$ max. Earth dist. 14°る58'50 6.02279 AU -950 Jul 26 i 00:51 -944 Jan 26 i 21:47 18°**ප**03'51 evening set 2°Ω21'37 morning rise -950 Aug 07 j 10:02 -944 Mar 21 i 06:11 max. Earth dist. 5°**Ω**02'50 6.41399 AU 0°≈ retrograde -944 Jun 06 i 09:27 8°≈16'50 conjunction -950 Aug 08 i 05:12 5°Ω13'16 1°00'33 opposition -944 Aug 05 i 16:17 3°≈16'17 -1°-27'-33 -950 Aug 08 i 05:10 5°Ω13'15 1°00'33 min. Earth dist. -944 Aug 05 i 04:14 3°≈20'17 3.99156 AU minimum elong -950 Aug 21 j 06:25 8°**Ω**03'22 -944 Sep 01 j 17:59 30°R3 morning rise -950 Sep 23 j 16:38 -944 Oct 03 j 04:26 28°る22'55 15°€ direct -950 Dec 19 j 12:47 -944 Nov 03 j 08:47 retrograde 24°**Ω**57'15 0°28 -949 Feb 17 j 20:10 opposition 20°Ω03'39 1°41'05 -943 Jan 23 j 23:37 15°≈ -949 Feb 18 j 15:56 min. Earth dist. 19°**Ω**57'15 4.42677 AU evening set -943 Feb 05 j 01:31 17°≈51'41 direct -949 Apr 21 j 07:31 15°**Ω**00′50 -949 Aug 13 j 17:57 0°m conjunction -943 Feb 18 j 06:53 21°≈02'12 -1°-9'-5 -943 Feb 18 j 06:52 -949 Aug 26 j 08:39 2° m 42'10 1°09'06 evening set minimum elong 21°≈02'10 -949 Sep 06 j 15:11 5°m/09'32 -943 Feb 19 j 13:51 5.97857 AU max. Earth dist. 6.42106 AU max. Earth dist. 21°**≈**20'48 -943 Mar 03 j 15:40 morning rise 24°≈14'28 -949 Sep 08 j 05:08 0°**)**€ conjunction 5° m 30'17 1°14'09 -943 Mar 28 j 09:15 -943 Jul 13 j 23:44 minimum elong -949 Sep 08 j 05:07 5° Mp 30'16 1°14'09 retrograde 14°**)** 45'39 morning rise -949 Sep 20 j 22:39 8° My 17'02opposition -943 Sep 11 j 21:15 9°**)**41'38 -1°-50'-2 retrograde -948 Jan 19 j 09:15 25° m) 13'36 min. Earth dist. -943 Sep 10 j 16:39 9°**₩**51'19 3.98786 AU -948 Mar 20 j 01:04 20° m/21'47 1°46'45 -943 Nov 08 j 18:53 4°**)**€46'38 opposition direct

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 41 Attention, astronomical year style is used: The year -942 in astronomical counting style is the year 943 BCE in historical counting style.

Attention, astronom	ical year style is used: T	he year -942 ii	n astronomical cou	inting style is the year	943 BCE in historical co	unting style.	
evening set	-942 Mar 14 j 07:03	24° ¥ 15′05		retrograde	-936 Jan 23 j 17:39	29° m 36'28	
				opposition	-936 Mar 24 j 11:37	24° m 44'41	1°45'05
conjunction	-942 Mar 27 j 20:10	27° ∺ 27′23	-1°-10'-11	min. Earth dist.	-936 Mar 25 j 19:02	24° m 34'40	4.39731 AU
minimum elong	-942 Mar 27 j 20:12	27°) €27'24	1°10'12	direct	-936 May 26 j 04:05	19° m 43'48	
max. Earth dist.	-942 Mar 29 j 21:35	27° ¥ 56′39	6.01456 AU		-936 Aug 24 j 16:35	0∘ ⊽	
	-942 Apr 07 j 14:20	0° Y		evening set	-936 Sep 29 j 11:05	7° ≏ 32'11	
morning rise	-942 Apr 10 j 12:02	0° Ƴ 40'58		max. Earth dist.	-936 Oct 10 j 04:12	9° ≙ 54'56	6.35696 AU
retrograde	-942 Aug 19 j 07:18	20° Ƴ 43'49					
opposition	-942 Oct 17 j 20:48	15° Ƴ 38'34	-1°-29'-46	conjunction	-936 Oct 12 j 02:12	10° ♀ 20'35	1°04'44
min. Earth dist.	-942 Oct 16 j 12:46	15° Ƴ 49'30	4.05981 AU	minimum elong	-936 Oct 12 j 02:14	10° ≏ 20'36	1°04'43
direct	-942 Dec 15 j 03:25	10° Ƴ 40'34		morning rise	-936 Oct 24 j 15:23	13° ≏ 08'14	
evening set	-941 Apr 20 j 08:28	29° Ƴ 47'39		Č	-935 Feb 03 j 20:58	0° M.	
C	-941 Apr 21 j 06:00	0°B		retrograde	-935 Feb 24 j 01:04	0° M 37'41	
	1 3			C	-935 Mar 16 j 05:19	30° Ŗ Ω	
conjunction	-941 May 04 j 02:40	2° 8 57'40	0°-44'-59	opposition	-935 Apr 26 j 00:23		1°17'02
minimum elong	-941 May 04 j 02:43	2° 8 57'42	0°45'00	min. Earth dist.	-935 Apr 27 j 09:59	25° ₽ 35'03	4.30570 AU
max. Earth dist.	-941 May 06 j 03:32	3° 8 25'50	6.11584 AU	direct	-935 Jun 27 j 04:20	20° ≏ 47'21	
morning rise	-941 May 17 j 21:54	6° 8 07'59			-935 Sep 18 j 18:53	0° M	
8	-941 Jun 27 j 17:44	15° 8		evening set	-935 Oct 30 j 16:07	8°M56'47	
retrograde	-941 Sep 22 j 10:26	25° 8 11'18		max. Earth dist.	-935 Nov 10 j 12:41		6.24476 AU
opposition	-941 Nov 20 j 22:51	20° 8 07'40	0°-38'-18	man. Bartir dist.	>50 1.0, 10 J 12	11 1102020	0.2 , 0 . 1 0
min. Earth dist.	-941 Nov 19 j 20:53	20° 8 16'29	4.17897 AU	conjunction	-935 Nov 12 j 06:37	11° M 49'27	0°35'58
direct	-940 Jan 19 j 04:47	15° 8 06'47	4.170)//110	minimum elong	-935 Nov 12 j 06:39	11°M49'28	0°35'58
direct	-940 May 08 j 06:28	0°Ⅱ		morning rise	-935 Nov 24 j 20:54	14°M42'11	0 33 30
evening set	-940 May 25 j 03:34	3° Ⅱ 42'22		morning risc	-935 Nov 26 j 04:14	15°M	
evening set	-740 May 25 J 05.54	3 11-12 22			-934 Feb 12 j 16:41	0° ∡ ⊓	
conjunction	-940 Jun 07 j 21:05	6° Ⅱ 46'35	0°-5'-8	retrograde	-934 Mar 30 j 07:18	3° ∡ ¹05'11	
minimum elong	-940 Jun 07 j 21:06	6° Ц 46'36	0°05'09	renograde	-934 May 15 j 19:15	30°RM	
behind sun begin	-940 Jun 07 j 13:02	6° Ц 42'06	0 03 09	opposition	-934 May 30 j 07:12	28°M11'19	0°22!57
behind sun end	-940 Jun 08 j 05:10	6° Ц 51'05		min. Earth dist.	-934 May 31 j 07:17		4.17938 AU
			C 24261 ATT		, ,		4.1/938 AU
max. Earth dist.	-940 Jun 09 j 01:58	7° Ⅱ 02'45	6.24361 AU	direct	-934 Jul 30 j 07:05	23°M15'34	
morning rise	-940 Jun 21 j 13:50	9° Ⅱ 50'07		1 1	-934 Oct 07 j 00:22	0° ⊼ ¹	
asc. node	-940 Jul 26 j 05:23	17° Ⅱ 13'31		desc. node	-934 Oct 27 j 15:50	3° √ 59'57	
retrograde	-940 Oct 23 j 14:38	27° Ⅱ 50′25	0000140	evening set	-934 Dec 02 j 04:50	11° ∡ 755'36	
opposition	-940 Dec 22 j 06:21	22° Ⅲ 50′18	0°22'40			=	
min. Earth dist.	-940 Dec 21 j 19:40	22° I 53'53	4.30326 AU	conjunction	-934 Dec 14 j 22:25	14° ₹ 54'56	
direct	-939 Feb 20 j 21:13	17° Ⅱ 47'32		minimum elong	-934 Dec 14 j 22:26	14° ₹ ′54'56	0°05'21
	-939 May 31 j 07:23	0° ©		behind sun begin	-934 Dec 14 j 14:40	14° ⋌ ¹50'23	
evening set	-939 Jun 28 j 04:10	5° © 53'48		behind sun end	-934 Dec 15 j 06:11	14° ₹ ′59'28	
				max. Earth dist.	-934 Dec 14 j 00:13		6.11573 AU
conjunction	-939 Jul 11 j 15:51	8° © 50'51	0°34'53	morning rise	-934 Dec 27 j 17:07	17° ∡ 55′08	
minimum elong	-939 Jul 11 j 15:49	8° © 50'50	0°34'55		-933 Feb 22 j 02:27	0°ಕ	
max. Earth dist.	-939 Jul 11 j 19:54	8° 9 53'04	6.35535 AU	retrograde	-933 May 05 j 17:47	7° る 21'50	
morning rise	-939 Jul 25 j 00:51	11° © 46'30		opposition	-933 Jul 05 j 09:41	2° る 24'48	0°-40'-29
retrograde	-939 Nov 23 j 09:51	29° © 00'14		min. Earth dist.	-933 Jul 05 j 16:36	2° る 22'33	4.05771 AU
opposition	-938 Jan 22 j 09:47	24° 5 04'01	1°14'02		-933 Jul 24 j 18:35	30°Ŗ ⋌ 7	
min. Earth dist.	-938 Jan 22 j 15:12	24° © 02'15	4.39507 AU	direct	-933 Sep 02 j 23:38	27° ∡ ³31′06	
direct	-938 Mar 25 j 04:33	19° 5 00'46			-933 Oct 12 j 10:29	0°ಕ	
	-938 Jun 27 j 19:49	0 ° Ω		evening set	-932 Jan 05 j 15:51	16° る 42'38	
evening set	-938 Jul 30 j 12:45	6° Ω 47'30					
				conjunction	-932 Jan 18 j 14:52	19° る 48'50	0°-46'-17
conjunction	-938 Aug 12 j 15:46		1°03'37	minimum elong	-932 Jan 18 j 14:49	19° る 48'48	0°46'19
minimum elong	-938 Aug 12 j 15:44	9° Ω 38'23	1°03'37	max. Earth dist.	-932 Jan 18 j 19:27	19° る 51'35	6.01253 AU
max. Earth dist.	-938 Aug 11 j 17:52	9° Ω 26'29	6.41990 AU	morning rise	-932 Jan 31 j 16:42	22° る 56'37	
morning rise	-938 Aug 25 j 15:47	12° Ω 27'46			-932 Mar 02 j 07:10	0° ≈	
	-938 Sep 06 j 12:13	15° Ω		retrograde	-932 Jun 11 j 09:37	13° ≈ 15′03	
retrograde	-938 Dec 23 j 20:44	29° Ω 19'55		opposition	-932 Aug 10 j 15:59	8° ≈ 14'01	-1°-32'-53
opposition	-937 Feb 22 j 04:53	24° Ω 26'43	1°43'37	min. Earth dist.	-932 Aug 10 j 01:09	8° ≈ 18'57	3.98438 AU
min. Earth dist.	-937 Feb 23 j 02:52	24° Ω 19'37	4.42963 AU	direct	-932 Oct 07 j 23:57	3° ≈ 20'34	
direct	-937 Apr 25 j 19:15	19° Ω 24'07			-931 Jan 06 j 20:44	15° ≈	
	-937 Jul 27 j 16:01	0° m)		evening set	-931 Feb 10 j 00:11	22° ≈ 51'52	
evening set	-937 Aug 30 j 17:00	7° ™ 04'34					
max. Earth dist.	-937 Sep 10 j 20:52	9° m 30'36	6.42060 AU	conjunction	-931 Feb 23 j 06:47	26° ≈ 03'03	-1°-10'-53
				minimum elong	-931 Feb 23 j 06:45	26° ≈ 03'02	1°10'54
conjunction	-937 Sep 12 j 12:33	9° m 52'19	1°14'26	max. Earth dist.	-931 Feb 24 j 17:00	26° ≈ 23'38	5.97517 AU
minimum elong	-937 Sep 12 j 12:33	9° m 52'19	1°14'26	morning rise	-931 Mar 08 j 16:32	29° ≈ 15'57	
morning rise	-937 Sep 25 j 05:16	12°M) 38'46			-931 Mar 11 j 18:38	0° ∀	

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -931 in astronomical counting style is the year 932 BCE in historical counting style. -931 Jul 19 i 01:36 19°**)** 47'53 opposition -925 Feb 26 i 12:49 retrograde 28°**Ω**47'47 1°45'33 opposition -931 Sep 16 j 20:02 14°**¥**43'37 -1°-49'-43 min. Earth dist. -925 Feb 27 j 11:36 28° **Ω**40'28 4.43060 AU min. Earth dist. -931 Sep 15 j 15:26 14°**)** 53′20 3.98867 AU -925 Apr 30 j 03:50 23°**Ω**45'20 direct -931 Nov 13 j 18:08 9°**)**48'17 -925 Jul 07 j 22:30 direct 0° m -930 Mar 19 j 08:51 29°¥17'05 -925 Sep 04 j 00:14 evening set evening set 11° Mp 25'24 -930 Mar 22 j 09:45 $0^{\circ}\Upsilon$ -925 Sep 15 j 01:33 max. Earth dist. 13° **m** 50'17 6.41688 AU -930 Apr 01 j 23:04 2°**Y**29'39 -1°-8'-6 -925 Sep 16 j 18:51 14° Mp 12'55 conjunction conjunction 1°14'18 -930 Apr 01 j 23:06 minimum elong 2°**Y**29'40 1°08'06 -925 Sep 16 j 18:51 minimum elong 14° Mp 12'55 1°14'17 2°**Y**59'47 -925 Sep 29 j 10:49 max. Earth dist. -930 Apr 04 j 02:04 6.01964 AU morning rise 16° m 59'13 -925 Dec 06 j 19:32 morning rise -930 Apr 15 j 15:50 5°**Y**43'24 0∘**⊽** -930 Aug 24 j 03:34 25° **Y**41'43-924 Jan 28 j 03:34 3°**£**59'16 retrograde retrograde -930 Oct 21 j 07:23 20°**Υ**47'41 4.06864 AU -924 Mar 22 j 00:31 min. Earth dist. 30°R, Mp opposition -930 Oct 22 j 15:58 20°**Ƴ**36'34 -1°-24'-5 opposition -924 Mar 28 j 22:13 29° Mp 07'34 1°42'53 direct -930 Dec 19 j 22:56 15°**Y**38'12 min. Earth dist. -924 Mar 30 j 07:26 28° m 56'59 4.38893 AU -929 Apr 04 j 09:00 0° 8 direct -924 May 30 j 15:27 24° Mp 06'56evening set -929 Apr 25 j 09:29 4°**8**43'20 -924 Aug 04 j 16:00 0∘**⊽** evening set -924 Oct 03 j 18:09 11°**♀**57'05 conjunction -929 May 09 j 03:57 7°**と**52'59 0°-39'-58 max. Earth dist. -924 Oct 14 j 09:30 14°**♀**19'19 6.34445 AU minimum elong -929 May 09 j 04:00 7°**8**53'01 0°39'58 max. Earth dist. -929 May 11 j 02:12 8°**8**19'34 6.12777 AU conjunction -924 Oct 16 j 08:57 14°**Ω**45'50 1°01'45 morning rise -929 May 22 j 23:28 11°**8**02'51 minimum elong -924 Oct 16 i 08:59 14°**£**45'51 1°01'45 -929 Jun 09 j 14:24 15°8 morning rise -924 Oct 28 i 22:07 17°**△**33'58 retrograde -929 Sep 27 i 01:04 29°**8**58'56 -924 Dec 30 i 12:49 0°M -923 Feb 28 j 15:19 opposition -929 Nov 25 i 13:31 24°**8**55'37 0°-29'-50 retrograde 5°M₀09'27 min. Earth dist. -929 Nov 24 j 13:22 25°803'50 4.19259 AU opposition -923 Apr 30 j 15:53 0°M17'16 1°10'54 direct -928 Jan 24 j 00:02 19°854'22 min. Earth dist. -923 May 02 j 00:19 0°ML06'56 4.28972 AU -928 Apr 20 j 03:43 $\Pi^{\circ}0$ -923 May 02 j 22:08 30°R**≏** -928 May 30 j 00:29 8°**Ⅲ**26'44 direct -923 Jul 01 j 16:08 25°**♀**19'10 evening set -928 Jun 04 j 22:55 -923 Aug 28 j 02:13 9°**Ⅱ**45'56 0°M asc. node -923 Nov 04 j 02:11 13°M32'23 evening set 11°**II**30'09 0°00'51 -928 Jun 12 j 17:42 -923 Nov 10 j 11:28 15°M₀ conjunction -928 Jun 12 j 17:42 11°**II**30'10 max. Earth dist. 0°00'51 -923 Nov 15 j 01:52 minimum elong 16°M03'23 6.22673 AU -928 Jun 12 j 09:22 11°**Ⅲ**25'32 behind sun begin -928 Jun 13 j 02:02 11°**Ⅲ**34'47 -923 Nov 16 j 17:02 16°M25'54 0°30'44 behind sun end conjunction -928 Jun 13 j 21:29 6.25806 AU 11°**Ⅱ**45'40 -923 Nov 16 j 17:04 16° M $_25'55$ 0°30'43 max. Earth dist. minimum elong -923 Nov 29 j 07:38 -928 Jun 26 j 09:31 14°**Ⅲ**32'43 19°№19'34 morning rise morning rise -928 Sep 18 j 09:12 0ಂತಾ -922 Jan 18 j 15:45 0°⊀ -928 Oct 27 j 23:35 -922 Apr 04 j 06:49 retrograde 2°925'53 retrograde 7°**∡**¹51'18 -928 Dec 06 j 12:10 30°R∏ opposition -922 Jun 04 j 05:17 2°**∡**°57′07 0°15'11 opposition -928 Dec 26 j 16:43 27°II26'15 0°30'50 min. Earth dist. -922 Jun 05 j 04:18 2°**≯**49'44 4.16042 AU min. Earth dist. -928 Dec 26 j 07:04 27°**П**29'28 4.31719 AU -922 Jun 28 j 21:30 30°RM direct -927 Feb 25 j 11:09 22°II23'19 direct -922 Aug 04 j 01:11 28° ML 01'42-927 May 12 j 01:38 0ಂತಾ desc. node -922 Sep 06 j 16:13 29° ML 47'20-927 Jul 02 j 19:46 10°926'17 -922 Sep 08 j 16:48 0°**∡**¹ evening set -922 Dec 06 i 21:05 16°**∡**¹46'39 evening set -927 Jul 16 i 06:10 0°39'49 conjunction 13°9522'20 -927 Jul 16 i 06:07 -922 Dec 19 i 15:12 19°**∡** 47'00 0°-11'-24 minimum elong 13°9522'19 0°39'50 conjunction -927 Jul 16 i 05:41 -922 Dec 19 i 15:11 max. Earth dist. 13°9522'04 6.36746 AU minimum elong 19°**х** 47′00 0°11'26 -927 Jul 29 j 14:05 morning rise 16°9516'59 behind sun begin -922 Dec 19 i 09:17 19°**х** 43′31 -927 Oct 10 j 20:25 $0^{\circ}\Omega$ behind sun end -922 Dec 19 j 21:06 19°**х** 50′28 -927 Nov 27 j 17:16 3°**Ω**25'53 max. Earth dist. -922 Dec 18 j 18:45 19°**∡** 34'56 6.09753 AU retrograde -926 Jan 15 j 02:18 morning rise -921 Jan 01 j 10:55 22°×748'24 30°Rூ -926 Jan 26 j 17:54 28°930'03 1°19'42 -921 Feb 02 j 04:32 0°る opposition -926 Jan 27 j 02:18 -921 May 10 j 21:40 min. Earth dist. 28°9527'18 4.40435 AU retrograde 12°**る**24'11 -926 Mar 29 j 17:29 opposition -921 Jul 10 j 13:15 0°-49'-9 direct 23°9526'43 7°る26'37 -926 Jun 08 j 02:30 $0^{\circ}\Omega$ min. Earth dist. -921 Jul 10 j 16:23 7°**る**25'35 4.04206 AU -926 Aug 03 j 22:54 11°Ω11'11 direct -921 Sep 07 j 21:26 2°**る**33'03 evening set -926 Aug 16 j 01:10 13°**Ω**48'30 -920 Jan 10 j 15:30 21°る49'07 max. Earth dist. 6.42521 AU evening set -926 Aug 17 j 00:54 14°Ω01'24 1°06'18 conjunction -920 Jan 23 j 15:36 24°る56'17 0°-51'-4 conjunction -926 Aug 17 j 00:52 -920 Jan 23 j 15:33 minimum elong 14°**Ω**01'23 1°06'19 minimum elong 24°**る**56'15 0°51'06 -926 Aug 21 j 12:40 15°**Ω** max. Earth dist. -920 Jan 24 j 01:23 25°る02'10 6.00098 AU morning rise -926 Aug 29 j 23:37 16°**Ω**50′03 morning rise -920 Feb 05 j 18:24 28°**る**05'02 -926 Nov 08 j 03:41 0°m -920 Feb 13 j 20:17 0°≈ retrograde -926 Dec 28 j 01:38 3° m 40'48 -920 Apr 29 j 19:12 15°**≈** -925 Feb 17 j 02:06 30°R€ -920 Jun 16 j 18:35 18°≈28'55 retrograde

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, page 43 Attention, astronomical year style is used: The year -920 in astronomical counting style is the year 921 BCE in historical counting style.

Attention, astronomi	ical year style is used: T	he year -920 ii	n astronomical cour	nting style is the year 9	21 BCE in historical co	unting style.	
	-920 Aug 04 j 04:10	15°R ≈		retrograde	-915 Dec 01 j 19:47	7° Ω 42'35	
opposition	-920 Aug 15 j 22:09	13° ≈ 27′24	-1°-37'-47	opposition	-914 Jan 30 j 22:39	2° Ω 47'15	1°24'43
min. Earth dist.	-920 Aug 15 j 05:35	13° ≈ 32'56	3.97845 AU	min. Earth dist.	-914 Jan 31 j 09:05	2° Ω 43'51	4.41366 AU
direct	-920 Oct 13 j 04:21	8° ≈ 33'50			-914 Feb 22 j 15:09	30° ₹ 5	
	-920 Dec 16 j 20:11	15° ≈		direct	-914 Apr 03 j 00:55	27°5944'00	
evening set	-919 Feb 15 j 05:32	28° ≈ 06'52			-914 May 12 j 19:22	$0^{\circ}\Omega$	
	-919 Feb 23 j 02:25	0° ∀			-914 Aug 06 j 04:16	15° Ω	
				evening set	-914 Aug 08 j 05:42	15° Ω 26'37	
conjunction	-919 Feb 28 j 13:16		-1°-12'-14	max. Earth dist.	-914 Aug 20 j 01:51	18° Ω 00'40	6.42866 AU
minimum elong	-919 Feb 28 j 13:15	1° ¥ 18'34				_	
max. Earth dist.	-919 Mar 02 j 03:28		5.97546 AU	conjunction	-914 Aug 21 j 06:23		1°08'32
morning rise	-919 Mar 14 j 00:14	4° ¥ 31'57		minimum elong	-914 Aug 21 j 06:21	18° Ω 16'10	1°08'33
retrograde	-919 Jul 24 j 06:30	25° ₩ 02'11		morning rise	-914 Sep 03 j 04:09	21° Ω 04'18	
opposition	-919 Sep 21 j 23:47	19° ¥ 57'40			-914 Oct 17 j 02:56	0° m	
min. Earth dist.	-919 Sep 20 j 16:58		3.99569 AU	retrograde	-913 Jan 01 j 06:53	7° m 54'45	
direct	-919 Nov 18 j 20:51	15°) €02'02		opposition	-913 Mar 02 j 18:11	3° Mp 02'03	1°46'54
	-918 Mar 05 j 05:57	0° Υ		min. Earth dist.	-913 Mar 03 j 20:11		4.42810 AU
evening set	-918 Mar 24 j 15:15	4° Υ 28′28			-913 Mar 28 j 04:09	30°R Ω	
				direct	-913 May 04 j 11:34	27° Ω 59'44	
conjunction	-918 Apr 07 j 06:11		-1°-5'-27		-913 Jun 10 j 21:14	0° m)	
minimum elong	-918 Apr 07 j 06:13	7° Ƴ 40'49	1°05'27	evening set	-913 Sep 08 j 04:52	15° Mp 40'52	
max. Earth dist.	-918 Apr 09 j 09:18	8° Y 10′54	6.03268 AU	max. Earth dist.	-913 Sep 19 j 03:49	18° m 04'46	6.40843 AU
morning rise	-918 Apr 20 j 23:43	10° Y 54'14					
	-918 Aug 07 j 18:30	0°8		conjunction	-913 Sep 20 j 22:55		1°13'47
retrograde	-918 Aug 29 j 00:17	0° 8 44'24		minimum elong	-913 Sep 20 j 22:56	18° m) 28'27	1°13'46
	-918 Sep 19 j 02:33	30°R Y		morning rise	-913 Oct 03 j 14:14	21° m 14'51	
min. Earth dist.	-918 Oct 26 j 05:09	25° Y 50'17	4.08622 AU		-913 Nov 15 j 01:55	0° ⊽	
opposition	-918 Oct 27 j 13:17	25° Y 39'18	-1°-17'-41	retrograde	-912 Feb 01 j 11:13	8° £ 19'09	1040111
direct	-918 Dec 25 j 00:02	20° Y 40'30		opposition	-912 Apr 02 j 07:32		1°40'11
	-917 Mar 16 j 14:03	0°8		min. Earth dist.	-912 Apr 03 j 16:47	3° £ 16'55	4.37511 AU
evening set	-917 Apr 30 j 11:36	9° 8 40'20		1.	-912 May 02 j 09:18	30°RM)	
	01734 14:06.21	120 40100	00 241 41	direct	-912 Jun 03 j 21:59	28° m/27'11	
conjunction	-917 May 14 j 06:21	12° 8 49'09			-912 Jul 06 j 11:17	0° ⊽	
minimum elong	-917 May 14 j 06:23	12° 8 49'10		evening set	-912 Oct 08 j 00:26	16° £ 21'06	(22(21 AII
max. Earth dist.	-917 May 16 j 04:27		6.14855 AU	max. Earth dist.	-912 Oct 18 j 15:55	18° 2244'02	6.32631 AU
marning rise	-917 May 23 j 19:30	15° 8 15° 8 57'56		agnismation	012 Oct 20 : 15:02	19° ≏ 10'30	0050120
morning rise	-917 May 28 j 01:28 -917 Aug 06 j 07:41	0° Ⅱ		conjunction minimum elong	-912 Oct 20 j 15:02 -912 Oct 20 j 15:05	19 ≗ 1030	
ratragrada	-917 Aug 00 j 07:41 -917 Oct 01 j 14:20	4° Ⅱ 43'30		morning rise	-912 Nov 02 j 04:13		0 38 28
retrograde	-917 Nov 27 j 18:00	4 H43 30 30°R ∀		morning rise	-912 Nov 02 j 04.13 -912 Dec 09 j 18:52	0°M	
min. Earth dist.	-917 Nov 27 j 18:00 -917 Nov 29 j 04:30	29° 8 48'20	4.21436 AU	retrograde	-911 Mar 05 j 09:09	9°M43'06	
opposition	-917 Nov 29 j 04:30 -917 Nov 30 j 03:13	29° 8 40'39		opposition	-911 May 05 j 08:13	4°M50'48	1°04'23
direct	-916 Jan 28 j 18:15	24° 8 39'07	0 -21-17	min. Earth dist.	-911 May 06 j 17:01	4°M40'21	4.26824 AU
direct	-916 Mar 29 j 16:39	0°Ⅱ		iiiii. Latui dist.	-911 Jun 27 j 14:00	4 11 6 40 21	4.20824 AU
asc. node	-916 Apr 15 j 10:17	2° I 52'50		direct	-911 Jul 06 j 05:36	29° £ 53'05	
evening set	-916 Jun 03 j 19:33	13° I I05'36		direct	-911 Jul 14 j 20:05	0° ™	
evening set	-710 Juli 05 j 17.55	13 1103 30			-911 Oct 25 j 09:41	15°M	
conjunction	-916 Jun 17 j 11:51	16° Ⅱ 07'48	0°06'39	evening set	-911 Nov 08 j 13:38	18°ML12'04	
minimum elong	-916 Jun 17 j 11:51	16° Ⅱ 07'48	0°06'40	max. Earth dist.	-911 Nov 19 j 14:40	20°M44'38	6.20382 AU
behind sun begin	-916 Jun 17 j 04:06	16° Ⅱ 03'31	0 00 10	man. Darin digi.	>1111(0) 1> j 11.10	20 110	0.20302110
behind sun end	-916 Jun 17 j 19:35	16° Ⅱ 12'05		conjunction	-911 Nov 21 j 04:51	21°ML06'41	0°25'17
max. Earth dist.	-916 Jun 18 j 10:42	16° Ⅱ 20'30	6.27890 AU	minimum elong	-911 Nov 21 j 04:52	21°ML06'42	0°25'16
morning rise	-916 Jul 01 j 02:52	19° Ⅱ 09'05	0.27030110	morning rise	-911 Dec 03 j 20:09	24°ML01'36	0 20 10
	-916 Aug 23 j 11:39	0ంల			-911 Dec 30 j 13:49	0° ∡ ¹	
retrograde	-916 Nov 01 j 06:07	6°953'36		retrograde	-910 Apr 09 j 07:27	12° ∡ ¹43'53	
opposition	-916 Dec 31 j 00:35	1°954'30	0°38'33	opposition	-910 Jun 09 j 05:20	7° ×1 49'17	0°06'12
min. Earth dist.	-916 Dec 30 j 17:55	1°956'43	4.33545 AU	min. Earth dist.	-910 Jun 10 j 00:55	7° × 142'59	4.13793 AU
dibt.	-915 Jan 14 j 18:04	30°RII		desc. node	-910 Jul 17 j 11:08	3° ⊀ ⁷ 41'32	
direct	-915 Mar 02 j 00:29	26° Ⅱ 51'23		direct	-910 Aug 08 j 18:32	2° × 754'14	
	-915 Apr 17 j 15:05	0°95		evening set	-910 Dec 11 j 16:10	21° х 45'26	
evening set	-915 Jul 07 j 07:24	14°9549'57		5. timing 500	7.10 200 11 j 10.10	, 10 20	
	5.12.13M 0, j 07.24	,51		conjunction	-910 Dec 24 j 11:07	24° х 47'00	0°-17'-30
conjunction	-915 Jul 20 j 16:47	17°9544'58	0°44'20	minimum elong	-910 Dec 24 j 11:06	24° х 46'59	0°17'32
minimum elong	-915 Jul 20 j 16:44	17°944'57	0°44'21	max. Earth dist.	-910 Dec 23 j 19:52	24° х 37'57	6.07761 AU
max. Earth dist.	-915 Jul 20 j 13:40	17°943'16	6.38167 AU	morning rise	-909 Jan 06 j 07:42	27° х 49'39	
morning rise	-915 Aug 02 j 23:12	20°938'28			-909 Jan 15 j 14:31	0°る	
	-915 Sep 18 j 01:44	0°Ω		retrograde	-909 May 16 j 06:47	0 0 17° る 34'58	

Planetary Phenomena of Jupiter from -1400 through -900 (UT), Astrodienst AG 7-Dez-2017 14:45, Attention, astronomical year style is used: The year -909 in astronomical counting style is the year 910 BCE in historical counting style. 12°る36'49 0°-57'-36 -909 Jul 15 i 19:50 -904 Aug 04 i 05:28 0ಂತಾ opposition 12°**る**36'38 min. Earth dist. -909 Jul 15 j 20:24 4.02668 AU -904 Nov 05 j 13:46 11°921'21 retrograde -909 Sep 13 j 00:07 7°る43'25 -903 Jan 04 j 08:40 6°€22'51 0°46'06 direct opposition min. Earth dist. 6°524'10 4.35050 AU -908 Jan 15 j 18:10 27°る03'37 -903 Jan 04 j 04:40 evening set -908 Jan 27 j 23:55 -903 Mar 06 j 12:58 0°≈ direct 1°9519'39 -903 Jul 11 j 19:56 19°5514'58 evening set 0°≈11'39 0°-55'-31 -908 Jan 28 j 19:17 conjunction minimum elong -908 Jan 28 j 19:14 0°**≈**11'37 -903 Jul 25 j 04:01 22°509'03 0°48'41 0°55'32 conjunction -908 Jan 29 j 10:00 -903 Jul 25 j 03:58 0°48'41 max. Earth dist. 0°**≈**20'30 5.99151 AU minimum elong 22°909'02 -908 Feb 10 j 23:19 -903 Jul 24 j 19:39 morning rise 3°**≈**21'21 max. Earth dist. 22°904'30 6.39224 AU 25°901'39 -908 Apr 03 j 11:29 15°**≈** morning rise -903 Aug 07 j 09:20 -908 Jun 22 j 03:51 23°≈49'00 -903 Aug 30 j 21:43 retrograde 0° Ω -908 Aug 20 j 09:45 -903 Dec 06 j 01:30 12°**Ω**02′13 min. Earth dist. 18°≈53'41 3.97628 AU retrograde opposition -908 Aug 21 j 05:59 18°**≈**46'54 -1°-41'-55 opposition -902 Feb 04 j 05:07 7°**Ω**07'19 1°29'23 -908 Sep 22 j 16:13 15°R≈ min. Earth dist. -902 Feb 04 j 18:25 7°**Ω**02'59 4.41942 AU direct -908 Oct 18 j 08:58 13°≈53'10 direct -902 Apr 07 j 10:24 2°**Ω**04'04 -908 Nov 13 j 00:53 15°≈ -902 Jul 20 j 23:41 15°€ -907 Feb 05 j 22:53 0°**)**€ evening set -902 Aug 12 j 13:53 19°**Ω**45'49 evening set -907 Feb 20 j 12:47 3°**¥**26′13 max. Earth dist. -902 Aug 24 j 07:31 22°**Ω**18'33 6.42910 AU conjunction -907 Mar 05 j 21:29 6°**¥**38'08 -1°-13'-1 conjunction -902 Aug 25 j 13:41 22°Ω34'58 1°10'28 minimum elong -907 Mar 05 j 21:29 6°\;\;38'08 1°13'01 minimum elong -902 Aug 25 i 13:39 22°**Ω**34'57 1°10'28 max. Earth dist. -907 Mar 07 j 14:14 7°**)**€02'33 5.98034 AU morning rise -902 Sep 07 i 10:14 25°**Ω**22'36 morning rise -907 Mar 19 i 09:32 9° ****51'43 -902 Sep 29 j 06:16 0° m -907 Jul 15 i 23:55 $0^{\circ}\Upsilon$ retrograde -901 Jan 05 j 12:53 12° m 13'43 -907 Jul 29 j 09:51 0°Υ17'51 -901 Mar 07 j 02:08 7° m 21'17 1°47'44 retrograde opposition -907 Aug 11 j 18:39 30°R**₩** min. Earth dist. -901 Mar 08 j 05:05 7° m 12'39 4.42342 AU min. Earth dist. -907 Sep 25 j 19:23 25°**¥**23'49 4.00685 AU -901 May 08 j 19:05 2° m 19'14 direct opposition -907 Sep 27 j 03:13 25°**)** 12′58 -1°-46'-25 evening set -901 Sep 12 j 11:55 20° m 01'49 -907 Nov 24 j 01:40 -901 Sep 23 j 07:37 20°**¥**16′50 max. Earth dist. 22° m 24'23 6.39883 AU direct -906 Feb 14 j 07:38 $0^{\circ}\Upsilon$ -906 Mar 29 j 21:30 9°Υ39'25 -901 Sep 25 j 05:08 22° m/49'28 1°12'50 evening set conjunction 22°**m** 49'29 -901 Sep 25 j 05:09 minimum elong 1°12'50 -906 Apr 12 j 13:22 12°**Υ**51'23 -1°-2'-17 -901 Oct 07 j 20:04 25° Mp 36'04conjunction morning rise -906 Apr 12 j 13:25 -901 Oct 28 j 07:18 12°**Υ**51'24 1°02'18 minimum elong 0∘**⊽** -906 Apr 14 j 18:21 13°**Y**22'27 6.04900 AU -900 Feb 06 j 00:29 12°**£**44'59 max. Earth dist. retrograde -906 Apr 26 j 07:15 16°**Y**′04'14 -900 Apr 06 j 20:03 morning rise opposition 7°**£**53'24 1°36'49 -906 Jul 02 j 09:01 0° 8 min. Earth dist. -900 Apr 08 j 06:40 7°**£**42'22 4.36119 AU retrograde -906 Sep 02 j 21:15 5°**8**44'56 direct -900 Jun 08 j 09:38 2°**♀**53'24 min. Earth dist. -906 Oct 31 j 02:19 0°**8**50'37 4.10565 AU evening set -900 Oct 12 j 09:09 20°**♀**50'53 opposition -906 Nov 01 j 09:26 0°840'00 -1°-10'-44 max. Earth dist. -900 Oct 23 j 01:14 23°**♀**14'42 6.30930 AU -906 Nov 06 j 07:06 30°RY direct -906 Dec 30 j 00:00 25°**Y**40'46 conjunction -900 Oct 24 j 23:46 23°**2**40'56 0°54'44 -905 Feb 21 j 03:56 0° 8 -900 Oct 24 j 23:49 23°**♀**40'58 0°54'43 minimum elong -905 May 05 j 12:49 14°**8**34'56 -900 Nov 06 j 13:00 26°**♀**30'34 evening set morning rise -905 May 07 i 09:06 -900 Nov 22 i 07:38 15°₩ 0°M -905 May 19 i 07:25 17°**8**42'47 0°-29'-10 conjunction -905 May 19 i 07:27 minimum elong 17°**8**42'49 0°29'10 -905 May 21 i 02:01 max. Earth dist. 18°**8**07'01 6.16935 AU morning rise -905 Jun 02 i 02:25 20°850'33 -905 Jul 14 j 23:59 $\Pi^{\circ}0$ -905 Oct 06 j 01:51 9°**I**126′03 retrograde -905 Dec 04 j 16:11 4°**Д**23'38 0°-12'-39 opposition -905 Dec 03 j 19:21 4°**Д**30'41 4.23458 AU min. Earth dist. 30°₽**∀** -904 Jan 13 j 17:24 29°**8**21'46 direct -904 Feb 02 j 12:01 -904 Feb 22 j 12:14 $\Pi^{\circ}0$ -904 Feb 24 j 08:56 0°**耳**07'17 asc. node -904 Jun 08 j 14:00 17°**Ⅱ**43'10 evening set -904 Jun 22 j 05:38 conjunction 20°**II**44'17 0°12'23 minimum elong -904 Jun 22 j 05:37 20°**I**I44'17 0°12'25 behind sun begin -904 Jun 22 j 00:20 20°**Ⅱ**41'22 behind sun end -904 Jun 22 j 10:53 20°**Ⅲ**47'11 max. Earth dist. -904 Jun 23 j 01:20 20°**Д**55'12 6.29720 AU

-904 Jul 05 j 19:28

morning rise

23°**Ⅱ**44'20

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -900 in astronomical counting style is the year 901 BCE in historical counting style. -900 Feb 06 i 00:29 12°**-**44′59 evening set -894 Apr 03 j 23:42 14°**Y**40'04 retrograde opposition -900 Apr 06 j 20:03 7°**£**53'24 1°36'49 min. Earth dist. -900 Apr 08 j 06:40 7°**£**42'22 4.36119 AU -894 Apr 17 j 16:02 17°**Υ**'51'32 0°-58'-45 conjunction -900 Jun 08 j 09:38 -894 Apr 17 j 16:05 17°**Y**51'34 0°58'46 direct 2°**£**53'24 minimum elong -894 Apr 19 j 19:26 evening set -900 Oct 12 j 09:09 18°**Y**21'32 6.06544 AU 20°**£**50'53 max. Earth dist. 21°**Y**'03'50 23°**≏**14'42 max. Earth dist. -900 Oct 23 j 01:14 -894 May 01 j 10:31 6.30930 AU morning rise -894 Jun 11 j 00:17 0°B -900 Oct 24 j 23:46 23°**-**40′56 0°54'44 -894 Sep 07 j 12:14 10°**8**35'32 conjunction retrograde -900 Oct 24 j 23:49 minimum elong 23°**△**40'58 0°54'43 min. Earth dist. -894 Nov 04 j 18:57 5°**8**41'14 4.12366 AU -900 Nov 06 j 13:00 morning rise 26°**₽**30'34 opposition -894 Nov 06 j 01:23 5°**8**30'51 -1°-3'-33 -900 Nov 22 j 07:38 0°M direct -893 Jan 03 j 19:17 0°**8**31'12 -899 Mar 10 j 03:06 14°ML22'05 15°8 retrograde -893 Apr 20 j 20:10 -893 May 10 j 10:11 19°**8**20'37 opposition -899 May 10 j 03:00 9°**™**29'35 0°57'16 evening set min. Earth dist. -899 May 11 j 09:30 9°**™**19'52 4.24940 AU direct -899 Jul 10 j 18:53 4°M32'21 conjunction -893 May 24 j 04:45 22°**8**27'40 0°-23'-38 -899 Oct 07 j 22:25 15°M minimum elong -893 May 24 j 04:47 22°**8**27'41 0°23'39 evening set -899 Nov 13 j 03:00 22°M56'04 max. Earth dist. -893 May 25 j 20:27 22°**8**50'10 6.18760 AU max. Earth dist. -899 Nov 24 j 07:41 25°M31'23 6.18498 AU morning rise -893 Jun 06 j 23:16 25°**8**34'26 -893 Jun 27 j 00:49 $\Pi^{\circ}0$ conjunction -899 Nov 25 j 18:32 25°M51'37 0°19'34 retrograde -893 Oct 10 j 12:48 14°**Ⅲ**01'17 minimum elong -899 Nov 25 j 18:34 25°M51'38 0°19'33 min. Earth dist. -893 Dec 08 j 08:19 9°**П**05'27 4.25132 AU morning rise -899 Dec 08 i 10:25 28°M47'36 opposition -893 Dec 09 i 02:08 8°∏59'26 0°-4'-13 -899 Dec 13 j 16:27 0°×7 asc. node -892 Jan 05 j 11:56 5°**Ⅲ**38'10 retrograde -898 Apr 14 j 11:06 17°**∡**39'05 direct -892 Feb 07 i 02:52 3°**I**57′20 desc. node -898 May 27 j 01:28 14°**х** 59'31 evening set -892 Jun 13 j 05:41 22°II15'04 -898 Jun 14 i 07:01 12°**x**⁷44'05 0°-2'-57 opposition -898 Jun 15 j 00:39 12°**х** 38′24 4.12058 AU -892 Jun 26 j 20:30 25°II15'16 0°17'54 min Earth dist conjunction -898 Aug 13 j 16:23 7°**х** 49′23 -892 Jun 26 j 20:28 25°**I**15'15 0°17'55 direct minimum elong -898 Dec 16 j 11:46 26°**҂**¹44'52 -892 Jun 27 j 11:56 25°**Ⅲ**23'47 evening set max. Earth dist. 6.31114 AU -892 Jul 10 j 09:25 28°**Ⅱ**14'20 morning rise -898 Dec 29 j 07:27 29°**х** 47'22 0°-23'-30 -892 Jul 18 j 11:20 conjunction 000 -892 Nov 09 j 18:57 -898 Dec 29 j 07:25 29°**₹**47'21 15°9545'40 minimum elong 0°23'33 retrograde -898 Dec 28 j 20:27 29°**х** 40′50 6.06350 AU -891 Jan 08 j 15:13 max. Earth dist. opposition 10°9547'41 0°53'12 -898 Dec 30 j 04:43 10°948'18 4.36094 AU 0°る min. Earth dist. -891 Jan 08 j 13:22 -897 Jan 11 j 04:58 2°る51'03 -891 Mar 10 j 22:27 morning rise direct 5°9544'24 -897 May 21 j 12:37 22°る43'25 -891 Jul 16 j 06:45 retrograde evening set 23°937'58 -897 Jul 21 j 01:15 17°る44'45 -1°-5'-33 opposition min. Earth dist. -897 Jul 20 j 21:49 17°る45'53 4.01757 AU conjunction -891 Jul 29 j 13:46 26°**©**31'21 0°52'39 direct -897 Sep 18 j 00:40 12°る51'29 minimum elong -891 Jul 29 j 13:43 26°931'19 0°52'40 -896 Jan 11 j 10:29 0°≈ max. Earth dist. -891 Jul 29 j 02:37 26°**©**25'16 6.39848 AU -896 Jan 20 j 19:44 2°≈13'44 morning rise -891 Aug 11 j 17:46 29°9523'11 evening set -891 Aug 14 j 13:58 $0^{\circ}\Omega$ -896 Feb 02 j 21:40 5°≈22'18 0°-59'-28 -891 Nov 10 j 16:52 15°**Ω** conjunction -896 Feb 02 j 21:38 5°≈22'17 0°59'30 -891 Dec 10 j 07:07 16°**Ω**21'45 minimum elong retrograde -896 Feb 03 j 16:12 5°≈33'27 5.98798 AU -890 Jan 08 j 20:04 15°RΩ max. Earth dist. -896 Feb 16 i 02:45 -890 Feb 08 i 11:24 11°Ω27'19 1°33'30 morning rise 8°≈32'36 opposition -896 Mar 14 j 22:12 -890 Feb 09 i 02:53 11°**Ω**22'17 4.42137 AU 15°**≈** min. Earth dist. -896 Jun 27 i 09:02 retrograde 29°≈01'41 direct -890 Apr 11 j 18:43 6°**Ω**24'13 -896 Aug 26 j 10:31 23°≈59'03 -1°-45'-5 -890 Jul 03 i 00:40 opposition 15°Ω min. Earth dist. -896 Aug 25 i 12:02 24°≈06'36 3.97888 AU -890 Aug 16 j 22:00 24°Ω06'04 evening set direct -896 Oct 23 j 12:31 19°≈05'03 max. Earth dist. -890 Aug 28 j 10:46 26°**Ω**36'25 6.42647 AU -895 Jan 18 j 21:36 0°**₩** -895 Feb 25 j 16:42 8° **)** 36'46 -890 Aug 29 j 20:40 26° Ω54'54 1°11'58 evening set conjunction -890 Aug 29 j 20:39 minimum elong 26°**Ω**54'53 1°11'58 conjunction -895 Mar 11 j 02:33 11°**)**(48'46 -1°-13'-10 morning rise -890 Sep 11 j 16:24 29°**Ω**42'17 minimum elong -895 Mar 11 j 02:33 11°**)**(48'46 1°13'11 -890 Sep 13 j 01:09 0° m max. Earth dist. -895 Mar 12 j 23:16 12°**升**15′29 5.98865 AU retrograde -889 Jan 09 j 21:40 16° Mp 34'57 -895 Mar 24 j 15:23 15°**)**€02'19 -889 Mar 11 j 10:53 11° mp 42'42 1°47'57 morning rise opposition -895 Jun 04 j 02:54 $0^{\circ}\Upsilon$ min. Earth dist. -889 Mar 12 j 15:27 11°Mp33'33 4.41667 AU -895 Aug 03 j 10:32 5°**Y**23′11 -889 May 13 j 04:11 retrograde direct 6° Mp 40'50-895 Sep 30 j 18:42 0°**Υ**29'01 4.01997 AU -889 Sep 16 j 19:14 24° m/25'13 min. Earth dist. evening set opposition -895 Oct 02 j 02:33 0°Υ18'10 -1°-43'-32 max. Earth dist. -889 Sep 27 j 15:15 26° Mp 48'186.38854 AU -895 Oct 04 j 07:58 30°**₹** direct -895 Nov 29 j 02:28 25°**)**21'40 conjunction -889 Sep 29 j 12:03 27° m 13'03 1°11'27 -894 Jan 22 j 12:32 $0^{\circ}\Upsilon$ minimum elong -889 Sep 29 j 12:04 27° **m** 13'04 1°11'27

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -889 in astronomical counting style is the year 890 BCE in historical counting style. morning rise 29° m 59'51 10°**Y**26′13 -889 Oct 12 j 02:21 retrograde -883 Aug 08 j 08:40 -889 Oct 12 i 02:37 0∘**⊽** min. Earth dist. -883 Oct 05 i 15:50 5°**Υ**32'18 4.03003 AU -888 Feb 10 j 12:16 17°**£**13'25 -883 Oct 07 j 00:42 5°**Y**21′05 -1°-39'-57 retrograde opposition 12°**≏**21'46 -888 Apr 11 j 09:23 1°32'51 -883 Dec 04 j 01:32 0°Y24'08 opposition direct -882 Apr 09 j 02:08 -888 Apr 12 j 19:13 12°**₽**11'01 19°**Y**39'48 min. Earth dist. 4.34799 AU evening set -888 Jun 12 j 19:58 direct 7°**₽**22'10 -888 Oct 16 j 18:15 -882 Apr 22 j 19:13 evening set 22°Υ50'59 0°-54'-49 25°**₽**22'29 conjunction max. Earth dist. -888 Oct 27 j 10:49 27°**₽**47'09 -882 Apr 22 j 19:16 22°**Y**51'01 0°54'49 6.29421 AU minimum elong -882 Apr 24 j 21:53 23°**Y**20'28 max. Earth dist. 6.07879 AU 26°**Y**′02'49 conjunction -888 Oct 29 j 08:37 28°**♀**13'05 0°50'39 morning rise -882 May 06 j 14:00 -888 Oct 29 j 08:40 minimum elong 28°**₽**13'06 0°50'38 -882 May 23 j 23:45 0°8 -888 Nov 06 j 05:37 -882 Aug 26 j 19:19 15°8 0°M -888 Nov 10 j 22:05 -882 Sep 12 j 06:20 15°**8**26'42 morning rise 1°ML03'24 retrograde -887 Jan 21 j 07:43 15°M -882 Sep 28 j 12:45 15°R₩ retrograde -887 Mar 14 j 23:18 19°ML01'58 opposition -882 Nov 10 j 17:55 10°**8**22'18 0°-55'-56 -887 May 08 j 06:02 15°RM min. Earth dist. -882 Nov 09 j 13:37 10°**8**31'56 4.13859 AU opposition -887 May 14 j 22:17 14°M09'09 0°49'44 direct -881 Jan 08 j 16:08 5°**8**22'15 min. Earth dist. -887 May 16 j 04:01 13°M59'39 4.23309 AU -881 Apr 02 j 13:28 15°₩ direct -887 Jul 15 j 11:32 9°M12'13 evening set -881 May 15 j 08:39 24°**8**08'03 -887 Sep 17 j 08:14 15°M evening set -887 Nov 17 j 16:00 27°M39'28 conjunction -881 May 29 j 03:09 27°**8**14'24 0°-17'-53 -887 Nov 27 j 18:22 0°×7 minimum elong -881 May 29 i 03:10 27°**8**14'25 0°17'53 max. Earth dist. -887 Nov 29 j 00:15 0°**х** 17'23 6.16887 AU max. Earth dist. -881 May 30 j 16:32 27°**8**35'31 6.20295 AU -881 Jun 10 j 09:01 Π °0 conjunction -887 Nov 30 j 08:01 0°**х** 35′52 0°13′44 morning rise -881 Jun 11 j 21:17 0°II20'20 -887 Nov 30 j 08:02 0°**х** 35′53 0°13'44 -881 Oct 14 j 22:57 18°**Ⅲ**39'33 minimum elong retrograde behind sun begin -887 Nov 30 j 03:35 0°**х** 33′18 -881 Nov 15 j 09:39 17°**Ⅱ**03'58 asc. node -887 Nov 30 j 12:28 38'27**تر**°0° -881 Dec 13 j 13:38 13°**Ⅲ**38'13 0°04'21 behind sun end opposition -887 Dec 13 j 00:25 3°×32'46 min. Earth dist. -881 Dec 12 j 20:56 13°**Ц**43'50 4.26578 AU morning rise -886 Apr 06 j 03:22 22°**х** 15′26 -880 Feb 11 j 17:16 8°**II**35'55 desc. node direct -886 Apr 19 j 10:57 22°**∡**°32′08 evening set -880 Jun 17 j 23:14 26°**Ⅲ**50'41 retrograde -886 Jun 19 j 07:22 17°**∡**36'40 0°-12'-4 opposition -886 Jun 19 j 21:57 -880 Jul 01 j 13:07 29°II50'00 0°23'26 min. Earth dist. 17°**∡**³31'57 4.10589 AU conjunction -886 Aug 18 j 11:29 -880 Jul 01 j 13:05 12°**₹**'42'15 29°II49'59 0°23'27 direct minimum elong -880 Jul 02 j 00:35 29°**Д**56'19 6.32377 AU -886 Dec 14 j 02:29 0°ಕ max. Earth dist. -886 Dec 21 j 06:34 1°る41'12 -880 Jul 02 j 07:16 evening set 000 2°5548'06 -880 Jul 15 j 00:58 morning rise conjunction -885 Jan 03 j 02:51 4°る44'29 0°-29'-18 retrograde -880 Nov 14 j 04:00 20°9514'12 minimum elong -885 Jan 03 j 02:49 4°る44'28 0°29'19 opposition -879 Jan 13 j 00:03 15°5516'49 1°00'11 -885 Jan 02 j 19:07 max. Earth dist. 4°る39'54 6.05138 AU min. Earth dist. -879 Jan 13 j 01:03 15°5016'30 4.37105 AU morning rise -885 Jan 16 j 01:19 7°**る**49'06 direct -879 Mar 15 j 11:29 10°9513'35 retrograde -885 May 26 j 17:38 27°る47'47 -879 Jul 20 j 19:36 28°905'18 evening set -885 Jul 26 j 04:49 22°る48'30 -1°-12'-56 -879 Jul 29 j 15:04 $0^{\circ}\Omega$ opposition min. Earth dist. -885 Jul 25 j 22:46 22°る50'30 4.00917 AU max. Earth dist. -879 Aug 02 j 11:17 0°Ω50'13 6.40541 AU -885 Sep 23 j 01:19 17°**る**55'12 direct -885 Dec 25 i 03:11 -879 Aug 03 i 01:28 0°Ω57'56 0°56'27 0°≈ conjunction -884 Jan 25 j 19:47 -879 Aug 03 j 01:26 0°**Ω**57'55 0°56'28 evening set 7°≈19'28 minimum elong -879 Aug 16 j 04:16 3°**Ω**49'01 morning rise -884 Feb 07 i 22:52 10°≈28'41 -1°-2'-56 -879 Oct 12 i 00:48 15°Ω conjunction -884 Feb 07 i 22:49 -879 Dec 14 i 13:56 minimum elong 10°≈28'39 1°02'58 retrograde 20°Ω45'20 -884 Feb 08 i 22:25 opposition max. Earth dist. 10°≈42'51 5.98407 AU -878 Feb 12 i 19:45 15°Ω51'18 1°37'13 15°**Ω**45'55 4.42524 AU -884 Feb 21 i 04:54 13°≈39'34 min. Earth dist. -878 Feb 13 i 12:19 morning rise -884 Feb 26 j 20:10 15°≈ -878 Feb 19 j 10:45 15°RΩ -884 May 10 j 21:15 0°**∀** direct -878 Apr 16 j 04:25 10°**Ω**48′23 -884 Jul 02 j 14:00 4°**)** 10′06 -878 Jun 10 j 11:47 retrograde 15°**Ω** -884 Aug 24 j 23:13 30°R≈ evening set -878 Aug 21 j 07:12 28°**Ω**29'28 29°≈07'03 -1°-47'-28 opposition -884 Aug 31 j 13:21 -878 Aug 28 j 06:04 0° mb min. Earth dist. -884 Aug 30 j 13:32 29°≈15'04 3.98012 AU max. Earth dist. -878 Sep 01 j 18:35 0° Mp 59'09 6.42716 AU -884 Oct 28 j 13:35 24°≈12'48 direct -884 Dec 28 j 13:33 0°**)**€ -878 Sep 03 j 04:53 1° To 17'51 1°13'08 conjunction -883 Mar 02 j 20:01 13°**)**43'58 -878 Sep 03 j 04:52 1°m/17'51 1°13'08 evening set minimum elong -878 Sep 15 j 23:31 4° m 04'49 morning rise -883 Mar 16 j 06:44 20° Mp 58'03conjunction 16°**¥**56'08 -1°-12'-47 retrograde -877 Jan 14 j 06:07 minimum elong -883 Mar 16 j 06:45 16°**¥** 56′08 1°12'48 opposition -877 Mar 15 j 20:54 16° Mp 06'02 1°47'35 max. Earth dist. -883 Mar 18 j 03:56 17°**¥**23′05 5.99461 AU min. Earth dist. -877 Mar 17 j 02:14 15° **m** 56'40 4.41427 AU morning rise -883 Mar 29 j 20:43 20°**)**€09'50 -877 May 17 j 14:36 11° mp 04'33 direct

-877 Sep 21 j 02:33

evening set

28° Mp 49'00

-883 May 12 j 20:09

 $0^{\circ}\Upsilon$

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 3

•	nical year style is used: T		`	//			; 3
Attention, astronom	-877 Sep 26 j 11:36	ne year -8// n 0°Ω	n astronomicai co	conjunction	-871 Mar 21 j 08:27	21° H 57'13	10 11' 53
max. Earth dist.	-877 Oct 01 j 20:19	0 == 1° 요 11'09	6.38315 AU	minimum elong	-871 Mar 21 j 08:27		1°11'54
max. Earth dist.	-8// Oct 01 j 20.19	1 = 1109	0.36313 AU	max. Earth dist.	-871 Mar 23 j 07:37		5.99788 AU
conjunction	-877 Oct 03 j 18:36	1° ≏ 36'46	1°09'43	morning rise	-871 Apr 03 j 23:17	25°\(\frac{1}{11}\)10	3.99700 AU
minimum elong	-877 Oct 03 j 18:37	1° ⊆ 36'47	1°09'42	morning risc	-871 Apr 24 j 18:13	25 γ (1110	
morning rise	-877 Oct 16 j 08:36	1 = 3047 4° £ 23'39	1 09 42	retrograde	-871 Aug 13 j 07:07	15° Υ 24'21	
retrograde	-876 Feb 15 j 00:37	4 = 23 39 21° £ 40'28		opposition	-871 Oct 11 j 20:42	13 γ 24 21 10° γ 19'08	-1°-35'-46
opposition	-876 Apr 15 j 22:26	21 = 40 28 16° £ 48'44	1°28'23	min. Earth dist.	-871 Oct 11 j 20:42	10° Υ 30'03	4.03697 AU
min. Earth dist.	-876 Apr 17 j 08:15	16° ⊆ 4844	4.33984 AU	direct	-871 Dec 08 j 23:41	5° Υ 21'45	4.03097 AU
direct	-876 Jun 17 j 07:41	10 ⊆ 37 39 11° ⊆ 49'29	4.33964 AU	evening set	-870 Apr 14 j 02:51	24° Υ 35'54	
evening set	-876 Oct 21 j 01:46	29° £ 50'58		evening set	-6/0 Apr 14 J 02.31	24 1 33 34	
evening set	-876 Oct 21 j 17:49	0°M		conjunction	-870 Apr 27 j 20:36	27° Ƴ 46'56	0°-50'-33
max. Earth dist.	-876 Oct 31 j 20:40	2°M17'16	6.28408 AU	minimum elong	-870 Apr 27 j 20:40	27° Υ '46'58	0°50'34
max. Lattii dist.	-670 Oct 31 j 20.40	2 11017 10	0.20400 AU	max. Earth dist.	-870 Apr 29 j 23:17	28° Υ 16'19	6.08894 AU
conjunction	-876 Nov 02 j 16:12	2°M41'59	0°46'22	max. Lartii dist.	-870 May 07 j 10:21	0°8	0.00074 AC
minimum elong	-876 Nov 02 j 16:15	2°M42'00	0°46'22	morning rise	-870 May 11 j 15:49	0° 8 58'29	
morning rise	-876 Nov 15 j 05:36	5°M32'44	0 40 22	morning risc	-870 Jul 19 j 08:21	15° 8	
morning risc	-876 Dec 29 j 19:52	15°M		retrograde	-870 Sep 16 j 21:22	20° 8 15'38	
retrograde	-876 Mar 19 j 14:47	23°M36'48		min. Earth dist.	-870 Nov 14 j 04:55	_	4.15093 AU
opposition	-875 May 19 j 15:10	18°M43'44	0°42'04	opposition	-870 Nov 15 j 09:11	15° 8 11'30	
min. Earth dist.	-875 May 20 j 19:20	18°M34'44	4.22148 AU	оррозион	-870 Nov 16 j 18:58	15°R8	0 -40-5
iiiii. Eartii dist.	-875 Jun 21 j 19:30	15°RM	4.22146 AU	direct	-869 Jan 13 j 09:11	10° 8 11'05	
direct	-875 Jul 20 j 00:47	13°M47'12		direct	-869 Mar 11 j 07:04	15°8	
direct	-875 Aug 17 j 02:58	15°M		evening set	-869 May 20 j 06:31	28° 8 54'04	
	-875 Nov 12 j 04:08	الا 13 الا 1√×00		evening set	-869 May 25 j 04:04	28 О 3404 0° П	
evening set	-875 Nov 22 j 02:24	2° ₹ 16'40			00) May 23 j 04.04	о д	
e venning see	073 1101 22 3 02.21	2 % 10 10		conjunction	-869 Jun 03 j 00:40	1° Ⅱ 59'43	0°-12'-5
conjunction	-875 Dec 04 j 18:35	5° √ 13'41	0°08'00	minimum elong	-869 Jun 03 j 00:41	1° ∏ 59'44	0°12'06
minimum elong	-875 Dec 04 j 18:36	5°×13'41	0°07'59	behind sun begin	-869 Jun 02 j 19:10	1° Ⅱ 56'38	0 12 00
behind sun begin	-875 Dec 04 j 11:26	5° √ 09'32	0 0, 0,	behind sun end	-869 Jun 03 j 06:13	2° I 102'49	
behind sun end	-875 Dec 05 j 01:46	5° √ 17'51		max. Earth dist.	-869 Jun 04 j 10:31	2° Ⅱ 18'47	6.21663 AU
max. Earth dist.	-875 Dec 03 j 12:10	4° ₹ 755'56	6.15670 AU	morning rise	-869 Jun 16 j 18:23	5° Ⅱ 04'50	0.21005110
morning rise	-875 Dec 17 j 11:41	8° ≯ 11'23		asc. node	-869 Sep 25 j 13:09	22° Ⅱ 21'48	
desc. node	-874 Feb 15 j 23:51	20° ₹ 52'57		retrograde	-869 Oct 19 j 10:11	23° I I16'52	
retrograde	-874 Apr 24 j 08:28	27° ✓ 17'39		min. Earth dist.	-869 Dec 17 j 10:36	18° Ⅲ 20'41	4.27947 AU
opposition	-874 Jun 24 j 04:22	22° х 21'41	0°-20'-49	opposition	-869 Dec 18 j 00:42	18° Ⅱ 15'57	0°12'49
min. Earth dist.	-874 Jun 24 j 16:58	22° х 17'36	4.09393 AU	direct	-868 Feb 16 j 09:33	13° Ⅱ 13'23	
direct	-874 Aug 23 j 05:13	17° × 727'26			-868 Jun 16 j 03:38	0ಂಣ	
	-874 Nov 27 j 16:02	0°る		evening set	-868 Jun 22 j 15:54	1° 5 24'59	
evening set	-874 Dec 25 j 21:39	6° る 29'15		<i>Q</i>	,		
<i>3</i>				conjunction	-868 Jul 06 j 04:58	4° 5 23'24	0°28'47
conjunction	-873 Jan 07 j 18:47	9° る 33'20	0°-34'-41	minimum elong	-868 Jul 06 j 04:56	4°523'23	0°28'48
minimum elong	-873 Jan 07 j 18:45	9° る 33'19	0°34'42	max. Earth dist.	-868 Jul 06 j 14:33	4°528'39	6.33639 AU
max. Earth dist.	-873 Jan 07 j 15:13	9° ට 31'13	6.04081 AU	morning rise	-868 Jul 19 j 15:36	7° © 20'28	
morning rise	-873 Jan 20 j 18:02	12° る 38'47		retrograde	-868 Nov 18 j 09:42	24°5541'06	
C	-873 Apr 19 j 11:42	0° ≈		opposition	-867 Jan 17 j 08:11	19° 5 544'07	1°06'44
retrograde	-873 May 31 j 19:28	2°≈43'20		min. Earth dist.	-867 Jan 17 j 10:11	19° 5 43'27	4.38165 AU
•	-873 Jul 13 j 07:07	30°Ŗ₹		direct	-867 Mar 19 j 22:18	14° 5 40'48	
opposition	-873 Jul 31 j 04:14	27° る 43'35	-1°-19'-32		-867 Jul 13 j 14:21	$0^{\circ}\Omega$	
min. Earth dist.	-873 Jul 30 j 20:38	27° る 46'06	4.00123 AU	evening set	-867 Jul 25 j 07:02	2° Ω 30′00	
direct	-873 Sep 27 j 21:04	22° る 50'17			-		
	-873 Dec 05 j 18:31	0° ≈		conjunction	-867 Aug 07 j 11:35	5° Ω 21'48	0°59'53
evening set	-872 Jan 30 j 16:42	12° ≈ 16'56		minimum elong	-867 Aug 07 j 11:33	5° Ω 21'46	0°59'53
	-872 Feb 11 j 00:08	15° ≈		max. Earth dist.	-867 Aug 06 j 18:09	5° Ω 12'19	6.41288 AU
				morning rise	-867 Aug 20 j 13:10	8° Ω 12′03	
conjunction	-872 Feb 12 j 20:37	15° ≈ 26'47	-1°-5'-50		-867 Sep 22 j 05:45	15° Ω	
minimum elong	-872 Feb 12 j 20:35	15° ≈ 26'45	1°05'51	retrograde	-867 Dec 18 j 20:34	25° Ω 05'54	
max. Earth dist.	-872 Feb 13 j 21:29	15° ≈ 41'45	5.97928 AU	opposition	-866 Feb 17 j 03:15	20° Ω 12′10	1°40'21
morning rise	-872 Feb 26 j 03:55	18° ≈ 38′24		min. Earth dist.	-866 Feb 17 j 22:31	20° Ω 05'56	4.42889 AU
	-872 Apr 17 j 04:39	0° ∀		direct	-866 Apr 20 j 15:26	15° Ω 09'20	
retrograde	-872 Jul 07 j 13:19	9° ∺ 10'49			-866 Aug 12 j 10:01	0° m	
min. Earth dist.	-872 Sep 04 j 10:18	4° ℋ 16'07	3.97928 AU	evening set	-866 Aug 25 j 14:51	2° m 49'25	
opposition	-872 Sep 05 j 12:12	4° ₩ 07'22	-1°-49'00	max. Earth dist.	-866 Sep 05 j 22:36	5° Mp 17'16	6.42626 AU
	-872 Oct 12 j 00:54	30° R ≈					
direct	-872 Nov 02 j 10:21	29° ≈ 12'49		conjunction	-866 Sep 07 j 11:34	5° Mg 37′26	1°13'53
	-872 Nov 23 j 21:45	0°) €		minimum elong	-866 Sep 07 j 11:33	5° m 37'25	1°13'53
evening set	-871 Mar 07 j 20:30	18°) 44'4 0		morning rise	-866 Sep 20 j 05:20	8° Mp 24'04	

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -865 in astronomical counting style is the year 866 BCE in historical counting style. 25° m 18'27 9°**)**(30'49 3.98162 AU retrograde -865 Jan 18 i 13:16 min. Earth dist. -860 Sep 09 i 13:51 20° m 26'30 -865 Mar 20 j 05:57 1°46'38 direct -860 Nov 07 j 15:05 4°\ 26'55 opposition min. Earth dist. -865 Mar 21 j 12:05 20° m 16'52 4.40883 AU -859 Mar 13 j 02:46 23°**)** 57'59 evening set -865 May 21 j 23:10 15° m) 25'12 direct 0∘**⊽** -865 Sep 10 j 17:16 -859 Mar 26 j 15:43 27°¥10'36 -1°-10'-24 conjunction -865 Sep 25 j 09:03 3°**♀**10'46 -859 Mar 26 j 15:45 1°10'24 evening set minimum elong 27°**¥**10′38 -865 Oct 06 j 03:01 -859 Mar 28 j 17:29 27°**)** € 40′08 6.00651 AU max. Earth dist. 5°**£**33'22 6.37349 AU max. Earth dist. $0^{\circ}\Upsilon$ -859 Apr 07 j 13:48 0°Y24'33 -865 Oct 08 j 00:43 -859 Apr 09 j 07:30 conjunction 5°**£**58'44 1°07'35 morning rise minimum elong -865 Oct 08 j 00:45 5°**£**58'45 1°07'34 retrograde -859 Aug 18 j 06:34 20°**Y**31′28 morning rise -865 Oct 20 j 14:14 8°**£**45'51 min. Earth dist. -859 Oct 15 j 10:35 15°**Ƴ**37'39 4.05121 AU -864 Feb 19 j 13:11 -859 Oct 16 j 19:50 15°**Y**26′18 retrograde 26°**₽**07'28 opposition -1°-30'-43 -864 Apr 20 j 11:50 1°23'24 -859 Dec 13 j 23:47 10°**Y**28'32 opposition 21°**≏**15'40 direct -864 Apr 21 j 22:00 29°**Y**38'24 min. Earth dist. 21°**≙**04'49 4.32629 AU evening set -858 Apr 19 j 06:48 direct -864 Jun 21 j 19:23 16°**2**16'47 -858 Apr 20 j 20:23 0°8 -864 Oct 05 j 17:27 0°M evening set -864 Oct 25 j 10:16 4°M21'21 conjunction -858 May 03 j 00:49 2°**8**48'45 0°-45'-52 max. Earth dist. -864 Nov 05 j 04:33 6° M47'56 6.26766 AU minimum elong -858 May 03 j 00:52 2°848'47 0°45'52 max. Earth dist. -858 May 05 j 01:30 3°816'52 6.10759 AU conjunction -864 Nov 07 j 00:37 7°**IL**13'01 0°41'44 morning rise -858 May 16 j 20:13 5°859'29 minimum elong -864 Nov 07 j 00:39 7°ML13'02 0°41'44 -858 Jun 27 j 06:47 15°₩ morning rise -864 Nov 19 j 14:28 10°ML04'37 retrograde -858 Sep 21 i 12:45 25°**8**06'33 -864 Dec 11 j 19:28 15°M min. Earth dist. -858 Nov 18 j 22:46 20°811'42 4.17186 AU retrograde -863 Mar 24 j 10:17 28°M16'41 opposition -858 Nov 20 i 01:10 20°**8**02'43 0°-39'-52 opposition -863 May 24 j 10:36 23°M23'16 0°33'57 direct -857 Jan 18 j 06:29 15°**8**01'56 min. Earth dist. -863 May 25 j 13:12 4.20309 AU -857 May 08 j 13:24 $\Pi^{\circ}0$ 23°M-14'45 direct -863 Jul 24 j 16:11 18°ML27'03 -857 May 25 j 03:47 3°**Ⅲ**39'04 evening set -863 Oct 26 j 06:34 0°**√** -863 Nov 26 j 15:58 7°**х** 01′12 conjunction -857 Jun 07 j 21:37 6°**I**I43'36 0°-6'-17 evening set -863 Dec 08 j 06:17 -857 Jun 07 j 21:39 max. Earth dist. 9°**х** 43'42 6.13812 AU minimum elong 6°**Ⅱ**43'36 0°06'17 -857 Jun 07 j 13:47 6°**Ⅲ**39'13 behind sun begin -863 Dec 09 j 08:52 6°**Ⅱ**47'59 9°**х** 59'16 0°02'00 -857 Jun 08 j 05:30 conjunction behind sun end 7°**I**101'43 6.23824 AU -863 Dec 09 j 08:52 9°**∡**′59'16 0°01'59 max. Earth dist. -857 Jun 09 j 05:58 minimum elong -857 Jun 21 j 14:26 -863 Dec 09 j 00:51 9°**Ⅱ**47'25 9°**х** 54'36 behind sun begin morning rise -863 Dec 09 j 16:53 -857 Aug 06 j 04:10 19°**Ⅱ**18'43 10°**х** 03′57 behind sun end asc. node -863 Dec 22 j 02:32 12°**₹**′58′03 -857 Oct 23 j 17:35 27°**Ⅱ**49'49 morning rise retrograde -863 Dec 27 j 06:01 14°**₹**09'40 -857 Dec 22 j 10:02 22° II 49'27 0°21'01 desc. node opposition -862 Mar 22 j 04:10 0°궁 min. Earth dist. -857 Dec 21 j 21:22 22°**П**53'41 4.29979 AU retrograde -862 Apr 29 j 12:00 2°る13'31 direct -856 Feb 20 j 22:52 17°**Ⅱ**46'43 -862 Jun 07 j 01:08 30°R.**✓** -856 May 30 j 10:27 0ಂತಾ opposition -862 Jun 29 j 05:47 27°**∡**17'10 0°-29'-49 evening set -856 Jun 27 j 05:53 5°953'11 min. Earth dist. -862 Jun 29 j 16:27 27°**≯**13'43 4.07675 AU direct -862 Aug 28 j 01:53 22°×23'11 conjunction -856 Jul 10 j 17:40 8°950'22 0°33'49 -862 Nov 08 j 07:13 0°궁 minimum elong -856 Jul 10 j 17:38 8°950'21 0°33'50 -862 Dec 30 j 18:34 11°る29'53 max. Earth dist. -856 Jul 10 j 21:47 8°952'37 6.35369 AU evening set -856 Jul 24 i 03:10 morning rise 11°9546'14 -861 Jan 12 j 16:26 14°る34'58 0°-40'-5 -856 Nov 22 j 14:13 conjunction retrograde 29°9500'30 -861 Jan 12 j 16:23 -855 Jan 21 i 13:29 minimum elong 14°る34'57 0°40'07 opposition 24°504'02 1°12'40 -861 Jan 12 j 15:17 max. Earth dist. 14°る34'17 6.02651 AU min. Earth dist. -855 Jan 21 j 19:07 24°502'10 4.39479 AU morning rise -861 Jan 25 i 16:54 17°**ප**41'33 direct -855 Mar 24 j 08:59 19°900'38 -861 Mar 23 j 01:18 0°≈ -855 Jun 26 j 22:49 $0^{\circ}\Omega$ retrograde -861 Jun 06 j 01:09 7°≈53'08 -855 Jul 29 j 14:49 6°**Ω**46'52 evening set -861 Aug 05 j 09:17 2°≈52'51 -1°-25'-55 opposition -861 Aug 04 j 22:04 min. Earth dist. 2°≈56'35 3.99156 AU conjunction -855 Aug 11 j 18:20 9° Ω37'54 1°02'52 -861 Aug 28 j 15:57 30°Rる minimum elong -855 Aug 11 j 18:18 9°**Ω**37'52 1°02'52 -861 Oct 02 j 21:29 27°る59'33 9°**£**26'51 direct max. Earth dist. -855 Aug 10 j 22:01 6.42064 AU 12°**Ω**27′20 -861 Nov 06 j 19:01 0°≈ morning rise -855 Aug 24 j 18:34 -860 Jan 25 j 08:42 15°≈ -855 Sep 05 j 16:03 15°**Ω** -860 Feb 04 j 19:59 retrograde -855 Dec 22 j 22:04 29°**Ω**19'08 evening set 17°≈29'13 -854 Feb 21 j 07:32 24°**Ω**25'43 1°42'51 opposition -860 Feb 18 j 01:10 20°≈39'46 -1°-8'-23 -854 Feb 22 j 04:18 24° **Ω**19'00 4.43101 AU conjunction min. Earth dist. -860 Feb 18 j 01:08 minimum elong 20°**≈**39'45 1°08'23 direct -854 Apr 24 j 20:38 19°**£**22′59 max. Earth dist. -860 Feb 19 j 07:06 20°**≈**57'47 5.97524 AU -854 Jul 26 j 21:06 0° m morning rise -860 Mar 02 j 09:28 23°≈52'03 evening set -854 Aug 29 j 19:23 7° Mp 02'54 -860 Mar 28 j 18:05 0°**)**€ max. Earth dist. -854 Sep 09 j 23:33 9° m 29'01 6.42235 AU retrograde -860 Jul 12 j 20:40 14°**)** 25'29 -860 Sep 10 j 16:44 9°\\$21'42 -1°-49'-44 conjunction -854 Sep 11 j 15:09 9° m 50'41 1°14'12 opposition

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -854 in astronomical counting style is the year 855 BCE in historical counting style. -854 Sep 11 j 15:09 9° m 50'41 1°14'13 morning rise -848 Mar 07 i 17:57 29°≈11'31 minimum elong -854 Sep 24 j 08:10 12° m/37'11 -848 Mar 11 j 03:26 0°**₩** morning rise 29° m 34'04 -853 Jan 22 j 20:14 -848 Jul 18 j 02:52 19°¥43'35 retrograde retrograde -853 Mar 24 j 13:11 -848 Sep 15 j 22:08 14°**)**€39'23 24° m 42'16 1°45'11 opposition -1°-49'-33 opposition -848 Sep 14 j 16:35 -853 Mar 25 j 21:42 24° Mp 31'54 4.39907 AU min. Earth dist. 14°**)** 49′24 min. Earth dist. 3.98824 AU -853 May 26 j 07:12 -848 Nov 12 j 19:19 9°**)** 44'12 direct 19° m 41'12 direct -853 Aug 25 j 00:24 -847 Mar 18 j 10:06 29°¥12'42 0ಂರ evening set -853 Sep 29 j 13:42 -847 Mar 21 j 18:24 $0^{\circ}\Upsilon$ evening set 7°**2**29'24 -853 Oct 10 j 05:08 max. Earth dist. 9°**£**51'10 6.35844 AU -1°-8'-20 conjunction -847 Mar 31 j 23:53 2°**Y**25′07 1°05'07 conjunction -853 Oct 12 j 05:01 10°**2**17'49 minimum elong -847 Mar 31 j 23:55 2°**Y**25'08 1°08'21 -853 Oct 12 j 05:03 10°**≏**17'50 -847 Apr 03 j 02:11 2°Y54'52 minimum elong 1°05'07 max. Earth dist. 6.01935 AU -853 Oct 24 j 18:29 13°**≏**05'30 -847 Apr 14 j 16:27 5°**Y**38'46 morning rise morning rise -852 Feb 04 j 23:13 0°M retrograde -847 Aug 23 j 05:08 25°**Ƴ**37'40 retrograde -852 Feb 24 j 01:22 0°M33'59 min. Earth dist. -847 Oct 20 j 10:05 20°**Y**43'35 4.06846 AU -852 Mar 14 j 05:18 30°R₽ opposition -847 Oct 21 j 18:44 20°**Ƴ**32'25 -1°-24'-57 opposition -852 Apr 25 j 00:47 25°**-**42′01 1°18'01 direct -847 Dec 19 j 02:12 15°**Y**34'10 min. Earth dist. -852 Apr 26 j 10:16 25°**♀**31'22 4.30689 AU -846 Apr 03 j 18:04 0°8 20°**₽**43'25 direct -852 Jun 26 j 04:36 evening set -846 Apr 24 j 09:56 4°838'41 -852 Sep 18 j 04:50 0°M evening set -852 Oct 29 j 18:55 8°ML53'11 conjunction -846 May 08 j 04:23 7°**と**48'17 0°-40'-50 max. Earth dist. -852 Nov 09 i 15:58 11°M22'02 6.24560 AU minimum elong -846 May 08 j 04:26 7°**8**48'18 0°40'50 max. Earth dist. -846 May 10 j 05:00 8°**8**16'13 6.12776 AU conjunction -852 Nov 11 i 09:37 11°ML45'52 0°36'53 morning rise -846 May 21 j 23:36 10°**8**58'03 minimum elong -852 Nov 11 i 09:39 11°M45'53 0°36'53 -846 Jun 08 j 23:22 15°8 -852 Nov 23 j 23:45 14°ML38'32 -846 Sep 26 j 03:43 29°**8**54'46 morning rise retrograde -852 Nov 25 j 13:31 15°M -846 Nov 24 j 16:28 24°851'23 0°-31'-24 opposition -851 Feb 12 j 07:50 min. Earth dist. -846 Nov 23 j 15:30 24°859'51 4.19277 AU 0°×7 -851 Mar 29 j 08:47 3°**х**¹00'36 direct -845 Jan 23 j 01:55 19°850'18 retrograde -851 May 14 j 04:19 -845 Apr 20 j 13:37 $\Pi^{\circ}0$ 30°R ML -851 May 29 j 07:24 -845 May 30 j 00:40 8°**Ⅲ**21'53 opposition 28°M₂06'54 0°25'34 evening set -851 May 30 j 08:56 min. Earth dist. 27°M58'43 4.17987 AU -851 Jul 29 j 08:38 -845 Jun 12 j 17:44 11°**II**25'17 0°00'-21 direct 23°M11'02 conjunction -851 Oct 06 j 12:18 -845 Jun 12 j 17:44 11°**Ⅲ**25'17 0°**∡**¹ 0°00'22 minimum elong -851 Nov 06 j 10:48 -845 Jun 12 j 09:26 11°**Ⅲ**20'40 6°**х** 12'31 desc. node behind sun begin -845 Jun 13 j 02:03 -851 Dec 01 j 07:43 11°**Ⅲ**29'54 evening set 11° 27 51'35 behind sun end 6.25819 AU -851 Dec 13 j 00:31 -845 Jun 13 j 20:59 11°**Ⅱ**40′29 max. Earth dist. 14°**∡**°36′23 6.11579 AU max. Earth dist. asc. node -845 Jun 16 j 01:36 12°**Ⅲ**09'51 conjunction -851 Dec 14 j 01:09 14°**₹**50'52 0°-4'-10 morning rise -845 Jun 26 j 09:52 14°**Ⅲ**27'55 minimum elong -851 Dec 14 j 01:08 14°**₹**′50'51 0°04'11 -845 Sep 19 j 01:51 0ಂತಾ behind sun begin -851 Dec 13 j 17:13 14°**∡**¹46′13 retrograde -845 Oct 28 j 02:01 2°521'45 behind sun end -851 Dec 14 j 09:02 14°**∡** 55′29 -845 Dec 05 j 23:39 30°R∏ -851 Dec 26 j 19:53 17°**х** 51′02 opposition -845 Dec 26 j 19:27 27° II 21'56 0°29'07 morning rise -850 Feb 21 j 14:12 0°궁 min. Earth dist. -845 Dec 26 j 09:51 27°**П**25'09 4.31727 AU retrograde -850 May 04 j 17:04 7°る17'03 direct -844 Feb 25 j 13:49 22°**I**19'01 -850 Jul 04 i 09:57 2°**ට**20'07 0°-38'-45 opposition -844 May 11 i 12:25 0ಂತಾ -850 Jul 04 i 16:27 min. Earth dist. 2°る18'00 4.05745 AU evening set -844 Jul 01 j 19:58 10°521'30 -850 Jul 23 i 02:48 30°R.✓ -850 Sep 01 j 23:50 27°**х** 26′20 -844 Jul 15 i 06:49 direct conjunction 13°5517'43 0°38'43 -850 Oct 12 i 03:27 0°궁 minimum elong -844 Jul 15 i 06:47 13°9517'41 0°38'43 -849 Jan 04 j 18:24 16°る38'28 max. Earth dist. -844 Jul 15 i 08:17 13°9518'31 6.36750 AU evening set morning rise -844 Jul 28 j 14:53 16°9512'28 conjunction -849 Jan 17 j 17:21 19°る44'37 0°-45'-16 -844 Oct 10 j 10:49 $0^{\circ}\Omega$ -849 Jan 17 j 17:18 -844 Nov 26 j 18:46 minimum elong 19°**⋜**44'36 0°45'18 retrograde 3°**Ω**21'49 -849 Jan 17 j 22:24 -843 Jan 13 j 15:27 max. Earth dist. 19°**る**47'39 6.01209 AU 30°R55 -849 Jan 30 j 18:47 -843 Jan 25 j 20:02 morning rise 22°る52'17 opposition 28°525'54 1°18'20 -849 Mar 02 j 16:55 -843 Jan 26 j 03:34 28°**©**23'26 0°≈ min. Earth dist. 4.40419 AU -849 Jun 11 j 11:40 direct -843 Mar 28 j 18:12 23°522'36 retrograde 13°≈10′26 -849 Aug 10 j 17:10 8°≈09'33 -1°-31'-42 -843 Jun 07 j 13:28 0° Ω opposition min. Earth dist. -849 Aug 10 j 03:35 8°≈14'04 3.98376 AU -843 Aug 03 j 00:01 11°**Ω**07'03 evening set -849 Oct 08 j 02:58 -843 Aug 15 j 01:14 13°**Ω**43′50 direct 3°≈16'09 max. Earth dist. 6.42481 AU -848 Jan 07 j 06:53 15°≈ evening set -848 Feb 10 j 02:10 22°≈47'38 conjunction -843 Aug 16 j 02:11 13°**Ω**57'24 1°05'36 minimum elong -843 Aug 16 j 02:09 13°**Ω**57'22 1°05'36 conjunction -848 Feb 23 j 08:25 25°≈58'43 -1°-10'-24 -843 Aug 20 j 21:21 15°**Ω** minimum elong -848 Feb 23 j 08:24 25°≈58'42 1°10'25 -843 Aug 29 j 01:26 16°**Ω**46'15 morning rise max. Earth dist. -848 Feb 24 j 18:39 26°≈19'18 5.97451 AU -843 Nov 07 j 16:17 0°m

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -843 in astronomical counting style is the year 844 BCE in historical counting style. retrograde -843 Dec 27 i 05:05 3°m 37'21 -837 Apr 30 j 09:09 15°**≈** 18°**≈**23'52 -842 Feb 15 j 16:41 30°RΩ -837 Jun 16 j 17:51 retrograde -842 Feb 25 j 14:42 28°Ω44'18 1°44'54 -837 Aug 03 j 12:57 opposition 15°R≈ min. Earth dist. -842 Feb 26 j 14:31 4.42990 AU 28°**Ω**36'38 opposition -837 Aug 15 j 22:43 13°**≈**22'28 -1°-36'-37 -842 Apr 29 j 06:28 23°**Ω**41'45 min. Earth dist. -837 Aug 15 j 05:28 direct 13°**≈**28′13 3.98234 AU -842 Jul 07 j 08:03 -837 Oct 13 j 05:14 8°≈28'57 0° m direct -837 Dec 17 j 09:51 -842 Sep 03 j 02:11 evening set 11° mp 22'21 15°≈ -842 Sep 14 j 04:04 28°**≈**00'12 max. Earth dist. 13° Mp 47'30 6.41594 AU evening set -836 Feb 15 j 06:02 -836 Feb 23 j 14:09 0°**∀** conjunction -842 Sep 15 j 21:17 14° m) 10'04 1°14'09 -842 Sep 15 j 21:17 minimum elong 14° **m** 10'04 1°14'09 conjunction -836 Feb 28 j 13:13 -842 Sep 28 j 13:29 -836 Feb 28 j 13:12 morning rise 16° Mp 56'32 minimum elong 1° **€** 11'28 1°11'50 -842 Dec 06 j 05:29 -836 Mar 01 j 02:07 0∘**⊽** max. Earth dist. 1°**∺**33'38 5.97917 AU retrograde -841 Jan 27 j 04:43 3°**£**56'49 morning rise -836 Mar 12 j 23:46 4°**)** 24'29 -841 Mar 21 j 18:23 30°R, My retrograde -836 Jul 23 j 04:37 24°\£53'16 opposition -841 Mar 28 j 23:35 29° Mp 05'07 1°43'07 opposition -836 Sep 20 j 23:40 19°**)** 48'42 -1°-48'-27 min. Earth dist. -841 Mar 30 j 08:03 28° Mp 54'46 4.38792 AU min. Earth dist. -836 Sep 19 j 17:16 19°**¥**59′02 3.99841 AU direct -841 May 30 j 15:24 24° m 04'24 direct -836 Nov 17 j 21:58 14°**¥**53′06 -841 Aug 04 j 23:20 0∘**⊽** -835 Mar 04 j 22:27 $0^{\circ}\Upsilon$ evening set -841 Oct 03 j 21:26 11°**♀**55'35 evening set -835 Mar 23 j 13:22 4°Υ18'03 max. Earth dist. -841 Oct 14 j 12:57 14°**♀**17'55 6.34347 AU conjunction -835 Apr 06 j 04:06 7°**Y**30'11 -1°-5'-49 conjunction -841 Oct 16 j 12:25 14°**≏**44'28 1°02'13 minimum elong -835 Apr 06 j 04:08 7°**Υ**30'12 1°05'49 minimum elong -841 Oct 16 j 12:27 14°**-**44′29 1°02'13 max. Earth dist. -835 Apr 08 j 08:23 8°Y00'59 6.03405 AU morning rise -841 Oct 29 j 01:44 17°**△**32'43 morning rise -835 Apr 19 j 21:08 10°**Y**43′22 -841 Dec 30 i 19:18 -835 Aug 09 j 11:19 0°8 oom. -840 Feb 28 j 18:50 5°M08'10 -835 Aug 28 j 00:17 0°833'46 retrograde retrograde -840 Apr 29 j 17:24 0°ML16'09 1°11'58 -835 Sep 15 j 08:19 30°RY opposition min. Earth dist. -840 May 01 j 03:11 0°ML05'24 4.28892 AU min. Earth dist. -835 Oct 25 j 05:21 25°Υ39'31 4.08598 AU -840 May 01 j 20:11 -835 Oct 26 j 13:09 30°R<u>Ω</u> 25°**Y**28'40 -1°-18'-46 opposition -840 Jun 30 j 18:56 -835 Dec 23 j 23:41 20°Y30'00 25° **2**18'00 direct direct -840 Aug 27 j 07:14 -834 Mar 16 j 10:05 0°8 0°M -840 Nov 03 j 06:18 -834 Apr 29 j 09:13 9°**8**29'30 evening set 13°M32'17 evening set -840 Nov 09 j 15:42 15°M 12°**8**38'18 0°-35'-42 max. Earth dist. -840 Nov 14 j 04:33 -834 May 13 j 03:39 16°M₀02'30 6.22633 AU conjunction -834 May 13 j 03:42 12°**8**38'20 0°35'42 minimum elong -840 Nov 15 j 21:11 16°M25'51 0°31'40 max. Earth dist. -834 May 15 j 00:35 13°**8**04'00 6.14648 AU conjunction -834 May 23 j 11:49 minimum elong -840 Nov 15 j 21:13 16° M $_{2}5'52$ 0°31'38 15°8 morning rise -840 Nov 28 j 11:54 19°**™**19'34 morning rise -834 May 26 j 22:55 15°**8**47'13 -839 Jan 17 j 19:52 0°**√** -834 Aug 06 j 07:24 Π °0 retrograde -839 Apr 03 j 08:08 7°**х¹**50'49 retrograde -834 Sep 30 j 14:14 4°**Ⅲ**34'35 -839 Jun 03 j 06:51 2°**∡** 56'47 0°16'47 -834 Nov 25 j 16:03 30°R8 opposition min. Earth dist. -839 Jun 04 j 05:00 2°**∡**749'40 4.16088 AU min. Earth dist. -834 Nov 28 j 04:59 29°839'23 4.21088 AU -839 Jun 27 j 22:00 30°RM -834 Nov 29 j 03:59 29°**8**31'35 0°-23'-2 opposition direct -839 Aug 03 j 02:00 28°ML01'21 direct -833 Jan 27 j 18:00 24°**8**30'08 -839 Sep 07 j 20:34 -833 Mar 30 j 13:30 0°×7 $\Pi^{\circ}0$ -839 Sep 16 i 00:15 0°**∡**757'26 -833 Apr 27 i 03:58 4°**Ⅱ**59'34 desc. node asc. node -839 Dec 06 j 01:18 -833 Jun 03 j 17:56 12°**Ⅱ**57'23 evening set 16°**∡**¹46'43 evening set conjunction -839 Dec 18 i 19:23 19°**∡**146'59 0°-10'-17 conjunction -833 Jun 17 i 10:34 15°**I**I59'53 0°05'25 -839 Dec 18 i 19:23 -833 Jun 17 i 10:33 19°**∡**¹46'59 0°10'18 minimum elong 15°**Ⅱ**59'52 0°05'26 minimum elong behind sun begin -839 Dec 18 j 12:58 19°**х** 43′13 behind sun begin -833 Jun 17 j 02:33 15°**Ⅱ**55'26 behind sun end -839 Dec 19 j 01:48 19°**₹** 50'46 behind sun end -833 Jun 17 j 18:33 16°**Ⅱ**04'18 -839 Dec 17 j 23:57 -833 Jun 18 j 10:49 16°**Ⅱ**13'23 max. Earth dist. 19°**∡**³35'31 6.09906 AU max. Earth dist. 6.27447 AU 19°**Ⅱ**01'26 -839 Dec 31 j 14:49 22°**х** 48′13 morning rise -833 Jul 01 j 01:41 morning rise -838 Feb 01 j 08:59 0°ਰ -833 Aug 24 j 02:22 0000 -838 May 09 j 23:56 retrograde 12°る22'36 retrograde -833 Nov 01 j 09:12 6°9548'17 -838 Jul 09 j 14:44 7°**る**25'11 0°-47'-28 opposition -833 Dec 31 j 02:40 1°9549'04 0°36'50 opposition min. Earth dist. -838 Jul 09 j 18:53 7°る23'49 4.04463 AU min. Earth dist. -833 Dec 30 j 19:38 1°**9**51'25 4.33050 AU -838 Sep 07 j 00:56 2°る31'38 -832 Jan 14 j 02:12 30°RⅢ direct -837 Jan 09 j 18:26 21°る46'51 -832 Mar 01 j 01:05 26°**Ⅱ**46′02 evening set direct -832 Apr 17 j 07:37 0ംខ conjunction -837 Jan 22 j 18:12 24°る53'43 0°-50'-5 evening set -832 Jul 06 j 08:04 14°9345'55 minimum elong -837 Jan 22 j 18:10 24°**る**53'42 0°50'06 max. Earth dist. -837 Jan 23 j 03:29 24°**る**59'18 6.00436 AU conjunction -832 Jul 19 j 17:43 17°**©**41'17 0°43'17 morning rise -837 Feb 04 j 20:45 28°る02'12 minimum elong -832 Jul 19 j 17:40 17°**©**41'15 0°43'17

max. Earth dist.

-832 Jul 19 j 14:02

17°**©**39'16

6.37658 AU

-837 Feb 13 j 03:31

0°**≈**

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -832 in astronomical counting style is the year 833 BCE in historical counting style. -832 Aug 02 j 00:45 20°935'12 morning rise -826 Jan 15 i 04:50 0°궁 -832 Sep 17 i 09:14 $0^{\circ}\Omega$ -826 May 15 j 03:02 17°る23'54 retrograde 7°**Ω**41'19 -832 Dec 01 j 00:10 opposition -826 Jul 14 j 17:45 12°**る**25'56 0°-55'-46 retrograde -826 Jul 14 j 18:15 -831 Jan 30 j 01:55 2°**Ω**45'50 1°23'29 min. Earth dist. 12°る25'46 4.03405 AU opposition -831 Jan 30 j 12:14 min. Earth dist. 2°**Ω**42'27 4.40897 AU -826 Sep 11 j 22:40 7°る32'32 direct -831 Feb 21 j 12:41 -825 Jan 14 j 17:01 26°る50'19 30°Rூ evening set -831 Apr 02 j 03:09 direct 27°5542'30 -831 May 12 j 01:51 -825 Jan 27 j 17:38 0°-54'-29 0 $^{\circ}\Omega$ conjunction 29°**る**57'51 -825 Jan 27 j 17:35 -831 Aug 05 j 07:18 15°**Ω** minimum elong 29°**る**57'50 0°54'30 -825 Jan 27 j 21:12 evening set -831 Aug 07 j 08:31 15°**Ω**26'31 0°≈ max. Earth dist. -831 Aug 19 j 07:23 18°**Ω**02'04 6.42495 AU max. Earth dist. -825 Jan 28 j 06:33 0°**≈**05'38 5.99786 AU -825 Feb 09 j 21:12 morning rise 3°**≈**07'03 -831 Aug 20 j 09:47 -825 Apr 04 j 16:42 conjunction 18°**Ω**16'26 1°07'55 15°**≈** -831 Aug 20 j 09:45 minimum elong 18°**Ω**16′25 1°07'56 retrograde -825 Jun 21 j 22:51 23°≈31'59 morning rise -831 Sep 02 j 07:47 21° **Q**04'49 min. Earth dist. -825 Aug 20 j 07:02 18°**≈**36′28 3.98072 AU -831 Oct 16 j 04:51 0°m opposition -825 Aug 21 j 02:13 18°**≈**30'02 -1°-40'-46 retrograde -831 Dec 31 j 10:40 7° m 56'22 -825 Sep 19 j 08:43 15°R≈ opposition -830 Mar 01 j 22:04 3°1003'36 1°46'22 direct -825 Oct 18 j 07:15 13°≈36'19 min. Earth dist. -830 Mar 02 j 22:39 2° m 55'42 4.42573 AU -825 Nov 16 j 02:00 15°**≈** -830 Mar 27 j 13:36 30°R€ -824 Feb 07 j 02:17 0°**)** direct -830 May 03 j 13:39 28°**Ω**01'16 evening set -824 Feb 20 j 08:32 3°**)**€07'48 -830 Jun 09 j 18:11 0°m evening set -830 Sep 07 i 09:25 15° m 43'12 conjunction -824 Mar 04 i 16:56 6°**)** 19'27 -1°-12'-40 max. Earth dist. -830 Sep 18 j 08:13 18° m 07'04 6.40767 AU minimum elong -824 Mar 04 i 16:55 6°**)** 19′27 1°12'41 max. Earth dist. -824 Mar 06 i 09:47 6°**)** 43′55 5.98254 AU -830 Sep 20 j 03:38 18° m 30'55 1°13'40 morning rise -824 Mar 18 i 04:24 9°**H**32'42 conjunction -830 Sep 20 j 03:38 18° m 30'56 1°13'40 retrograde -824 Jul 28 j 06:19 29°\ 58'38 minimum elong -830 Oct 02 j 19:22 21° m) 17'29 -824 Sep 25 j 23:30 24°**)** 53'54 -1°-46'-37 morning rise opposition -830 Nov 14 j 01:21 0∘**⊽** min. Earth dist. -824 Sep 24 j 16:41 25° **)** (04'23 4.00652 AU -829 Jan 31 j 16:57 -824 Nov 22 j 21:49 8°**£**21'38 19°**)** 57'57 retrograde direct $0^{\circ}\Upsilon$ -829 Apr 02 j 11:22 3°**£**29'59 1°40'25 -823 Feb 14 j 16:11 opposition -823 Mar 28 j 16:17 9°**Υ**20'34 min. Earth dist. -829 Apr 03 j 21:05 3°**♀**19'14 4.37609 AU evening set -829 May 02 j 23:45 30°R, Mp -829 Jun 04 j 02:49 -823 Apr 11 j 07:41 12°Υ32'31 -1°-2'-50 28° m 29'33 direct conjunction -829 Jul 06 j 04:56 -823 Apr 11 j 07:44 12°**Υ**'32'32 1°02'51 0∘**⊽** minimum elong 13°**Y**′02′26 6.04592 AU -823 Apr 13 j 10:41 -829 Oct 08 j 05:29 16°**2**23'25 evening set max. Earth dist. 15°**Y**45′28 -829 Oct 18 j 21:38 -823 Apr 25 j 01:34 max. Earth dist. 18°**≏**46'35 6.32906 AU morning rise -823 Jul 02 j 22:15 0° 8 -823 Sep 01 j 17:50 conjunction -829 Oct 20 j 20:21 19° 212'48 0°58'54 retrograde 5°**8**28'35 -829 Oct 20 j 20:24 -823 Oct 29 j 23:42 minimum elong 19°**≙**12'49 0°58'54 min. Earth dist. 0°**8**34'23 4.10023 AU morning rise -829 Nov 02 j 09:35 22°**2**01'36 opposition -823 Oct 31 j 07:09 0°**8**23'39 -1°-12'-7 -829 Dec 09 j 20:28 -823 Nov 03 j 04:32 30°RY -828 Mar 04 j 10:37 9°M43'37 direct -823 Dec 28 j 20:21 25°Y24'33 retrograde -828 May 04 j 10:37 4°M51'22 1°05'24 -822 Feb 21 j 18:08 0° 8 opposition min. Earth dist. -828 May 05 j 18:13 4°ML41'18 4.27284 AU -822 May 04 j 08:40 14°**8**20'28 evening set -828 Jun 27 j 00:28 -822 May 07 j 06:22 30°R. ← 15°8 -828 Jul 05 i 07:29 direct 29°**£**53'36 -822 May 18 j 03:22 17°**8**28'40 0°-30'-18 -828 Jul 13 j 15:10 0°M conjunction -828 Oct 24 j 14:41 -822 May 18 j 03:24 15°M minimum elong 17°**8**28'41 0°30'19 -828 Nov 07 j 17:59 18°ML11'27 max. Earth dist. -822 May 19 i 22:26 17°**8**53'13 6.16210 AU evening set 6.20992 AU max. Earth dist. -828 Nov 18 j 19:27 20°M44'04 morning rise -822 May 31 i 22:20 20°836'47 -822 Jul 14 j 22:07 $0^{\circ}II$ conjunction -828 Nov 20 j 09:04 21°ML05'46 0°26'13 retrograde -822 Oct 05 j 04:06 9°**Ⅱ**16'09 -828 Nov 20 j 09:06 -822 Dec 03 j 16:38 4°**I**13'41 0°-14'-28 minimum elong 21°ML05'47 0°26'12 opposition -828 Dec 03 j 00:12 morning rise 24°ML00'22 min. Earth dist. -822 Dec 02 j 20:09 4°**Д**20'36 4.22616 AU -828 Dec 29 j 21:05 0°**∡**¹ -821 Jan 10 j 05:59 30°R₩ 29°**8**11'58 retrograde -827 Apr 08 j 08:57 12°**х** 39'36 direct -821 Feb 01 j 11:15 -827 Jun 08 j 05:55 7°**∡**¹45′08 0°07'51 -821 Feb 23 j 21:20 Π °0 opposition min. Earth dist. -827 Jun 09 j 02:42 7°**∡**³38'27 4.14505 AU asc. node -821 Mar 07 j 05:37 0°**I**58′05 -827 Jul 27 j 00:02 3°**х** 03′35 -821 Jun 08 j 12:39 17°**Ⅲ**35'54 desc. node evening set -827 Aug 07 j 21:48 2°**∡**¹49'59 direct -827 Dec 10 j 18:06 -821 Jun 22 j 04:33 evening set 21°**х** 39'01 conjunction 20°**Ⅲ**37'32 0°11'10 -821 Jun 22 j 04:32 minimum elong 20°**Ⅲ**37'32 0°11'11 conjunction -827 Dec 23 j 12:50 24°**₹**′40′09 0°-16'-18 behind sun begin -821 Jun 21 j 22:29 20°**Ⅲ**34'11 minimum elong -827 Dec 23 j 12:48 24°**≯**¹40′08 0°16'20 behind sun end -821 Jun 22 j 10:35 20°**Ⅱ**40′52 max. Earth dist. -827 Dec 22 j 20:37 24°**渘**³30'34 6.08515 AU max. Earth dist. -821 Jun 23 j 00:56 20°**Ⅱ**48'51 6.28823 AU morning rise -826 Jan 05 j 09:09 27°**∡**¹42'22 morning rise -821 Jul 05 j 18:52 23°**Ⅲ**38′09

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 8

2			•	//	322 BCE in historical con	, ,	. 0
,	-821 Aug 04 j 15:35	0ංම		max. Earth dist.	-815 Dec 27 j 13:50		6.07431 AU
retrograde	-821 Nov 05 j 16:54	11° © 18'58			-815 Dec 30 j 12:03	ರ°0	
opposition	-820 Jan 04 j 11:33	6° © 20′18	0°44'29	morning rise	-814 Jan 10 j 00:29	2° る 29'23	
min. Earth dist.	-820 Jan 04 j 06:23	6°522'01	4.34194 AU	retrograde	-814 May 20 j 03:28	22° る 17'03	
direct	-820 Mar 05 j 13:10	1°517'10		opposition	-814 Jul 19 j 16:48	17° る 18'32	-1°-3'-24
evening set	-820 Jul 10 j 21:53	19°515'03		min. Earth dist.	-814 Jul 19 j 15:30	17° る 18'58	4.02520 AU
				direct	-814 Sep 16 j 19:17	12° る 25'06	
conjunction	-820 Jul 24 j 06:29	22° © 09'38	0°47'43		-813 Jan 12 j 03:17	0° ≈	
minimum elong	-820 Jul 24 j 06:26	22° 5 09'36	0°47'43	evening set	-813 Jan 19 j 12:16	1° ≈ 45'13	
max. Earth dist.	-820 Jul 24 j 00:22	22° 5 06'17	6.38505 AU				
morning rise	-820 Aug 06 j 12:11	25° © 02'42		conjunction	-813 Feb 01 j 13:57	4° ≈ 53'27	0°-58'-21
	-820 Aug 29 j 21:42	0 $^{\circ}$ Ω		minimum elong	-813 Feb 01 j 13:54	4° ≈ 53'25	0°58'22
retrograde	-820 Dec 05 j 07:28	12° Ω 05'46		max. Earth dist.	-813 Feb 02 j 06:56	5° ≈ 03'40	5.99186 AU
opposition	-819 Feb 03 j 09:55	7° Ω 10′50	1°28'18	morning rise	-813 Feb 14 j 18:27	8° ≈ 03'20	
min. Earth dist.	-819 Feb 03 j 22:06	7° Ω 06′52	4.41424 AU		-813 Mar 16 j 18:59	15° ≈	
direct	-819 Apr 06 j 13:32	2° Ω 07'42		retrograde	-813 Jun 27 j 00:23	28° ≈ 31′08	
	-819 Jul 19 j 18:43	15° Ω		min. Earth dist.	-813 Aug 25 j 05:01	23° ≈ 35'38	3.97853 AU
evening set	-819 Aug 11 j 18:31	19° Ω 50'49		opposition	-813 Aug 26 j 01:30	23° ≈ 28'46	-1°-44'-3
				direct	-813 Oct 23 j 03:56	18° ≈ 34'50	
conjunction	-819 Aug 24 j 18:33	22° Ω 40′13	1°09'56		-812 Jan 20 j 21:13	0° ∀	
minimum elong	-819 Aug 24 j 18:32	22° Ω 40′12	1°09'56	evening set	-812 Feb 25 j 08:01	8° ∺ 07'11	
max. Earth dist.	-819 Aug 23 j 12:47	22° Ω 24'00	6.42666 AU				
morning rise	-819 Sep 06 j 15:38	25° Ω 28′08		conjunction	-812 Mar 09 j 17:20	11° ∺ 19'12	-1°-12'-59
	-819 Sep 28 j 00:47	0° m y		minimum elong	-812 Mar 09 j 17:20	11° ∺ 19'12	1°12'59
retrograde	-818 Jan 04 j 19:34	12° m 19'43		max. Earth dist.	-812 Mar 11 j 10:28	11°) (43′49	5.98412 AU
opposition	-818 Mar 06 j 07:26	7° m 27'13	1°47'18	morning rise	-812 Mar 23 j 06:03	14°) 32′53	
min. Earth dist.	-818 Mar 07 j 09:29	7° M 18'51	4.42417 AU		-812 Jun 05 j 14:59	0 ° Υ	
direct	-818 May 08 j 00:03	2° m 25'08		retrograde	-812 Aug 02 j 03:06	4° Y 56'43	
evening set	-818 Sep 11 j 17:11	20° Mp 07'12			-812 Sep 29 j 19:54	30° ₹ ₩	
max. Earth dist.	-818 Sep 22 j 16:11	22°My31'22	6.40312 AU	opposition	-812 Sep 30 j 20:01	29° ∺ 51'47	-1°-44'-5
				min. Earth dist.	-812 Sep 29 j 12:06	0° Ƴ 02'39	4.01184 AU
conjunction	-818 Sep 24 j 10:48	22° m 54'49	1°12'49	direct	-812 Nov 27 j 18:33	24° ∺ 55′24	
minimum elong	-818 Sep 24 j 10:49	22° m 54'50	1°12'48		-811 Jan 23 j 21:25	0 ° Υ	
morning rise	-818 Oct 07 j 01:44	25° m 41'18		evening set	-811 Apr 02 j 16:47	14° Y 16'58	
	-818 Oct 27 j 03:43	0∘ ত					
retrograde	-817 Feb 05 j 02:50	12° ≏ 48′04		conjunction	-811 Apr 16 j 09:09	17° Ƴ 28'54	0°-59'-29
opposition	-817 Apr 06 j 23:25	7° ≙ 56'26	1°37'10	minimum elong	-811 Apr 16 j 09:12	17° Ƴ 28'56	0°59'29
min. Earth dist.	-817 Apr 08 j 08:27	7° £ 45'55	4.36885 AU	max. Earth dist.	-811 Apr 18 j 12:23	17° Ƴ 58'54	6.05473 AU
direct	-817 Jun 08 j 12:47	2° ≏ 56'24		morning rise	-811 Apr 30 j 03:28	20° Ƴ 41'41	
evening set	-817 Oct 12 j 13:16	20° ≏ 51'18			-811 Jun 11 j 09:58	9° 8	
max. Earth dist.	-817 Oct 23 j 05:20	23° ≙ 14'49	6.31972 AU	retrograde	-811 Sep 06 j 12:03	10° 8 18'45	
				opposition	-811 Nov 04 j 23:19	5° 8 14'01	-1°-5'-7
conjunction	-817 Oct 25 j 03:43	23° ≙ 40'55	0°55'19	min. Earth dist.	-811 Nov 03 j 17:32	5° 8 24'11	4.11144 AU
minimum elong	-817 Oct 25 j 03:45	23° ≏ 40'56	0°55'18	direct	-810 Jan 02 j 16:09	0° 8 14'31	
morning rise	-817 Nov 06 j 16:59	26° ≏ 30'06			-810 Apr 20 j 17:47	15° 8	
	-817 Nov 22 j 13:20	0°M₊		evening set	-810 May 09 j 07:09	19° 8 07'56	
retrograde	-816 Mar 09 j 03:18	14° M 17'04					
opposition	-816 May 09 j 02:51	9°M24'35	0°58'32	conjunction	-810 May 23 j 01:54	22° 8 15'37	0°-24'-48
min. Earth dist.	-816 May 10 j 10:13	9° ™ 14'35	4.26168 AU	minimum elong	-810 May 23 j 01:56	22° 8 15'39	0°24'49
direct	-816 Jul 09 j 21:50	4° M 27′09		max. Earth dist.	-810 May 24 j 19:11	22° 8 39'05	6.17495 AU
	-816 Oct 07 j 14:20	15° M ₊		morning rise	-810 Jun 05 j 20:44	25° 8 23'05	
evening set	-816 Nov 12 j 03:35	22°M46'51			-810 Jun 26 j 18:00	$\Pi^{\circ}0$	
max. Earth dist.	-816 Nov 23 j 07:37	25°M21'20	6.19798 AU	retrograde	-810 Oct 09 j 14:35	13° Ⅱ 55'11	
				min. Earth dist.	-810 Dec 07 j 08:22	8° Ⅱ 59'49	4.23953 AU
conjunction	-816 Nov 24 j 19:00	25°M41'48	0°20'45	opposition	-810 Dec 08 j 04:09	8° Ⅱ 53′08	0°-5'-57
minimum elong	-816 Nov 24 j 19:01	25°M41'48	0°20'44	asc. node	-809 Jan 15 j 16:47	4° Ⅱ 35'39	
morning rise	-816 Dec 07 j 10:31	28°M37'04		direct	-809 Feb 06 j 01:34	3° Ⅱ 51′08	
	-816 Dec 13 j 11:20	0° ∡ ¹		evening set	-809 Jun 13 j 06:40	22° Ⅱ 12'13	
retrograde	-815 Apr 13 j 03:54	17° ∡ ¹22'46				_	
desc. node	-815 Jun 07 j 16:33	13° ₹ 09'28		conjunction	-809 Jun 26 j 21:48	25° Ⅱ 12'58	0°16'47
opposition	-815 Jun 13 j 02:09	12° ∡ ¹27'52	0°00'-51	minimum elong	-809 Jun 26 j 21:46	25° Ⅱ 12'58	0°16'48
min. Earth dist.	-815 Jun 13 j 20:17	12° ∡ °22′02	4.13317 AU	max. Earth dist.	-809 Jun 27 j 14:51	25° Ⅲ 22'25	6.30120 AU
direct	-815 Aug 12 j 13:11	7° ∡ ³33′01		morning rise	-809 Jul 10 j 11:09	28° Ⅱ 12'38	
evening set	-815 Dec 15 j 08:10	26° ∡ 724'33			-809 Jul 18 j 15:53	0 \circ \odot	
				retrograde	-809 Nov 10 j 01:37	15°547'30	
conjunction	-815 Dec 28 j 03:22	29° ∡ ¹26'22	0°-22'-1	opposition	-808 Jan 08 j 20:12	10°949'20	0°51'47
minimum elong	-815 Dec 28 j 03:21	29° ∡ ¹26′21	0°22'04	min. Earth dist.	-808 Jan 08 j 17:38	10° © 50'11	4.35342 AU

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -808 in astronomical counting style is the year 809 BCE in historical counting style. direct -808 Mar 10 j 02:23 5°9546'07 conjunction -802 Jan 01 j 22:10 4°る22'29 0°-27'-49 minimum elong -808 Jul 15 j 10:41 23°9641'25 -802 Jan 01 j 22:08 4°**ප**22'28 0°27'50 evening set -802 Jan 01 j 13:06 4°**ප**17'06 6.05818 AU max. Earth dist. conjunction -808 Jul 28 j 18:07 26°935'09 0°51'49 -802 Jan 14 j 20:09 7°る26'37 morning rise -808 Jul 28 j 18:04 26°935'08 0°51'50 -802 May 25 j 10:08 27°る22'23 minimum elong retrograde -808 Jul 28 j 08:54 -802 Jul 24 j 20:43 max. Earth dist. 26°930'08 6.39389 AU opposition 22°**る**23'25 -1°-10'-56 -802 Jul 24 j 16:55 4.01272 AU -808 Aug 10 j 22:35 morning rise 29°527'21 min. Earth dist. 22°**る**24'40 -808 Aug 13 j 10:59 0 $^{\circ}\Omega$ direct -802 Sep 21 j 18:30 17°**る**30'06 -808 Nov 08 j 23:26 15°**Ω** -802 Dec 25 j 19:09 0°≈ retrograde -808 Dec 09 j 12:49 $16^{\circ}\Omega 27'08$ evening set -801 Jan 24 j 13:15 6°≈53'56 -807 Jan 09 j 01:43 15°**Ŗ**Ω -807 Feb 07 j 17:06 -801 Feb 06 j 15:48 10°≈02'58 -1°-1'-57 opposition 11°**Ω**32'31 1°32'34 conjunction -807 Feb 08 j 06:43 -801 Feb 06 j 15:45 min. Earth dist. 11°**£**28′05 4.41994 AU minimum elong 10°**≈**02'56 1°01'59 -801 Feb 07 j 11:25 direct -807 Apr 10 j 22:45 6°**Ω**29'24 max. Earth dist. 10°≈14'47 5.98400 AU -807 Jul 01 j 18:04 15°**Ω** morning rise -801 Feb 19 j 21:37 13°≈13'45 evening set -807 Aug 16 j 03:10 24°Ω11'14 -801 Feb 27 j 08:26 15°≈ max. Earth dist. -807 Aug 27 j 19:08 26°**Ω**43'12 6.42845 AU -801 May 13 j 12:18 0°**)**€ retrograde -801 Jul 02 j 05:31 3°**)** 44′51 conjunction -807 Aug 29 j 02:10 27°Ω00'06 1°11'32 -801 Aug 21 j 11:52 30°R≈ minimum elong -807 Aug 29 j 02:09 27°**Ω**00'06 1°11'32 min. Earth dist. -801 Aug 30 j 06:41 28°≈49'55 3.97651 AU morning rise -807 Sep 10 j 22:04 29°**Ω**47'30 opposition -801 Aug 31 j 06:07 28°≈42'02 -1°-46'-42 -807 Sep 11 j 21:10 0° m direct -801 Oct 28 i 05:49 23°≈47'55 retrograde -806 Jan 09 i 02:18 16° m 39'04 -801 Dec 30 j 14:39 0°\ opposition -806 Mar 10 j 15:34 11° Mp 46'46 1°47'38 evening set -800 Mar 01 j 13:22 13°**¥**20′57 min. Earth dist. -806 Mar 11 j 19:07 11° m 37'57 4.42175 AU -806 May 12 j 09:03 6° m 44'56 -800 Mar 14 j 23:57 16°**¥**33'20 -1°-12'-45 direct conjunction -806 Sep 15 j 23:44 24° m 27'27 minimum elong -800 Mar 14 j 23:58 16°**¥**33'20 1°12'45 evening set -806 Sep 26 j 19:23 26° m 50'08 6.39626 AU max. Earth dist. -800 Mar 16 j 21:00 17°**)** € 00'14 5.98833 AU max. Earth dist. -800 Mar 28 j 13:31 19°**¥**47'13 morning rise $0^{\circ}\Upsilon$ -806 Sep 28 j 16:34 27° m 15'03 1°11'33 -800 May 13 j 07:11 conjunction 10°**Y**07'14 -806 Sep 28 j 16:35 -800 Aug 07 j 06:26 minimum elong 27° Mp 15'03 1°11'34 retrograde morning rise -806 Oct 11 j 07:09 -800 Oct 05 j 21:00 5°**Υ**02'11 -1°-40'-39 0°**£**01'38 opposition -806 Oct 11 j 04:11 -800 Oct 04 j 13:06 5°Υ13'04 4.02199 AU 0ಂರ min. Earth dist. -805 Feb 09 j 14:21 17°**♀**12'05 -800 Dec 02 j 21:46 0°Y05'26 retrograde direct 19°**Y**23'51 -805 Apr 11 j 11:10 -799 Apr 07 j 21:41 opposition 12°**2**20′24 1°33′23 evening set -805 Apr 12 j 20:59 min. Earth dist. 12°**2**09'38 4.35778 AU -805 Jun 12 j 23:06 -799 Apr 21 j 14:41 22°Υ35'25 0°-55'-36 direct 7°**2**20'40 conjunction evening set -805 Oct 16 j 20:28 25°**2**18'01 minimum elong -799 Apr 21 j 14:44 22°**Y**35'26 0°55'36 max. Earth dist. -805 Oct 27 j 14:04 27°**♀**42'51 6.30531 AU max. Earth dist. -799 Apr 23 j 18:40 23°**Y**05'42 6.07009 AU 25°**Y**47'40 morning rise -799 May 05 j 09:30 conjunction -805 Oct 29 j 10:59 28°**2**08'12 0°51'23 -799 May 23 j 21:33 0° 8 -805 Oct 29 j 11:01 28°**2**08'14 0°51'22 -799 Aug 29 j 16:41 15°8 minimum elong -805 Nov 06 j 17:04 0°M -799 Sep 11 j 05:28 15°**8**15'36 retrograde -805 Nov 11 j 00:11 0°M58'00 -799 Sep 23 j 16:35 15°R\ morning rise -804 Jan 22 j 08:07 min. Earth dist. -799 Nov 08 j 11:25 10°**8**21'22 4.13045 AU 15°M -804 Mar 13 i 19:35 -799 Nov 09 i 17:35 10°**8**11'05 0°-57'-32 retrograde 18°M51'59 opposition -804 May 05 j 19:56 -798 Jan 07 j 12:52 5°**8**11'13 15°RM direct opposition -804 May 13 j 19:55 13°ML59'17 0°51'15 -798 Apr 02 i 07:40 15°8 min. Earth dist. -804 May 15 j 01:58 13°M49'42 4.24474 AU evening set -798 May 14 j 06:46 23°**8**59'06 direct -804 Jul 14 i 10:41 9°ML02'15 -804 Sep 17 i 10:15 15°M conjunction -798 May 28 i 01:14 27°805'45 0°-19'-6 -804 Nov 16 j 15:08 27°M26'10 minimum elong -798 May 28 i 01:15 27°**8**05'46 0°19'06 evening set -804 Nov 27 j 16:54 0°×7 max. Earth dist. -798 May 29 j 15:18 27°**8**27'17 6.19611 AU -804 Nov 27 j 20:40 -798 Jun 09 j 22:07 $0^{\circ}\Pi$ max. Earth dist. 0°**尽**02'11 6.17990 AU -798 Jun 10 j 19:35 0°**I**12′03 morning rise -798 Oct 14 j 01:32 18°**Ⅱ**34'06 conjunction -804 Nov 29 j 06:46 0°**∡**21'59 0°15'02 retrograde minimum elong -804 Nov 29 j 06:47 0°**∠**22′00 0°15'02 asc. node -798 Nov 26 j 07:53 15°**Ⅱ**40'04 -804 Nov 29 j 03:36 0°**∡**°20′10 -798 Dec 12 j 15:41 13°**Ⅲ**32′29 0°02'31 behind sun begin opposition -804 Nov 29 j 09:58 0°**х** 23′50 -798 Dec 11 j 22:39 13°**Ⅲ**38′13 4.26068 AU behind sun end min. Earth dist. 3°**∡**18'19 -804 Dec 11 j 22:59 -797 Feb 10 j 19:03 8°**Ⅲ**30′12 morning rise direct -803 Apr 18 j 04:23 22°**₹**13'02 -797 Jun 17 j 22:51 26°**Ⅱ**45'35 retrograde evening set -803 Apr 18 j 02:29 desc. node 22°×13'02 -803 Jun 18 j 01:20 -797 Jul 01 j 13:07 opposition 17°**∡**17'43 0°-9'-52 conjunction 29°**Ⅱ**45′08 0°22'13 min. Earth dist. -803 Jun 18 j 17:34 17°**∡**12'28 4.11520 AU minimum elong -797 Jul 01 j 13:06 29°**Ⅱ**45′07 0°22'13 direct -803 Aug 17 j 08:25 12°**х** 23′07 max. Earth dist. -797 Jul 02 j 03:32 29°**Ⅲ**53′05 6.32066 AU -803 Dec 14 j 10:43 0°궁 -797 Jul 02 j 16:05 0ಂತಾ

-803 Dec 20 j 02:02

evening set

1°る19'35

morning rise

-797 Jul 15 j 01:12

2°5643'28

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -797 in astronomical counting style is the year 798 BCE in historical counting style. -797 Nov 14 i 04:54 20°910'36 17°**∡**18′09 retrograde direct -791 Aug 22 j 04:31 0°궁 opposition -796 Jan 13 i 02:20 15°9512'54 0°58'33 -791 Nov 27 j 08:48 min. Earth dist. -796 Jan 13 i 01:22 15°913'14 4.36980 AU -791 Dec 24 j 22:54 6°る20'54 evening set -796 Mar 14 j 11:51 direct 10°909'35 -796 Jul 19 j 20:10 evening set -790 Jan 06 j 19:44 9°**る**24'57 0°-33'-29 28°900'53 conjunction -790 Jan 06 j 19:41 -796 Jul 28 j 23:50 0°33'30 0 $^{\circ}$ Ω minimum elong 9°**る**24'56 -790 Jan 06 j 13:44 max. Earth dist. 9°**る**21'23 6.03955 AU -796 Aug 02 j 02:16 0°**Ω**53'35 0°55'30 -790 Jan 19 j 18:56 conjunction morning rise 12°る30'24 minimum elong -790 Apr 19 j 15:15 -796 Aug 02 j 02:13 0°**£**53′34 0°55'31 0°≈ 2°**≈**34'54 max. Earth dist. -796 Aug 01 j 12:43 0°**Ω**46′13 6.40581 AU retrograde -790 May 30 j 17:36 3°**Ω**44'47 -790 Jul 11 j 01:36 morning rise -796 Aug 15 j 05:28 30°Ŗる -796 Oct 11 j 13:13 -790 Jul 30 j 03:25 27°る35'19 15°**Ω** opposition -1°-18'-1 -796 Dec 13 j 16:14 $20^{\circ} \Omega 40'48$ -790 Jul 29 j 19:26 retrograde min. Earth dist. 27°**る**37'57 3.99958 AU opposition -795 Feb 11 j 21:20 15°**Ω**46'34 1°36'10 direct -790 Sep 26 j 20:19 22°る42'02 min. Earth dist. -795 Feb 12 j 14:18 15°**Ω**41'04 4.42663 AU -790 Dec 05 j 12:02 0°**≈** -795 Feb 17 j 21:26 15°R€ evening set -789 Jan 29 j 17:38 12°≈09'37 direct -795 Apr 15 j 06:57 10°**Ω**43'30 -789 Feb 10 j 13:09 15°≈ -795 Jun 10 j 02:56 15°€ evening set -795 Aug 20 j 07:52 28°**Ω**23'47 conjunction -789 Feb 11 j 21:26 15°≈19'27 -1°-5'-6 -795 Aug 27 j 17:17 0°m minimum elong -789 Feb 11 j 21:24 15°≈19'26 1°05'08 max. Earth dist. -795 Aug 31 j 19:09 0° m 53'17 6.42908 AU max. Earth dist. -789 Feb 12 j 23:15 15°≈35'00 5.97758 AU morning rise -789 Feb 25 i 04:15 18°≈30'59 conjunction -795 Sep 02 i 05:53 1° m/12'12 1°12'42 -789 Apr 17 j 19:09 0°**)** minimum elong -795 Sep 02 i 05:51 1° m 12'12 1°12'42 retrograde -789 Jul 07 i 14:54 9°\(\mathbf{H}\) 03'58 morning rise -795 Sep 15 i 00:52 3° m 59'13 min. Earth dist. -789 Sep 04 j 11:58 4°**)**€09'06 3.97763 AU retrograde -794 Jan 13 j 06:04 20° m 51'36 -789 Sep 05 j 13:00 4°¥00'39 -1°-48'-28 opposition -794 Mar 14 j 21:05 15° m 59'25 1°47'24 -789 Oct 10 j 13:52 opposition 30°R≈ -794 Mar 16 j 02:07 15° Mp 50'07 4.41640 AU -789 Nov 02 j 12:29 29°≈06'15 min. Earth dist. direct -794 May 16 j 14:20 10° m 57'42 -789 Nov 25 j 09:53 0°**₩** direct -794 Sep 20 j 03:21 -788 Mar 06 j 20:59 evening set 28° Mp 41'42 18°**¥**38'24 evening set -794 Sep 26 j 01:47 0∘Ω -794 Sep 30 j 22:12 -788 Mar 20 j 08:34 1°**2**04'18 6.38524 AU 21°****50'52 -1°-11'-54 max. Earth dist. conjunction -788 Mar 20 j 08:35 minimum elong 21°**X**50'52 1°11'55 -794 Oct 02 j 19:45 -788 Mar 22 j 08:28 1°29'30 1°09'56 max. Earth dist. 22°**升**19'22 5.99645 AU conjunction -794 Oct 02 j 19:46 -788 Apr 02 j 23:11 1°**≏**29'31 25°**)** 04'47 minimum elong 1°09'56 morning rise -794 Oct 15 j 09:48 -788 Apr 24 j 05:11 4°**2**16'21 $0^{\circ}\Upsilon$ morning rise -793 Feb 13 j 23:52 -788 Aug 12 j 07:52 15°**Y**18'44 retrograde 21°**♀**32'03 retrograde -788 Oct 10 j 22:28 opposition -793 Apr 15 j 21:16 16° 240'21 1°29'11 opposition 10°**Y**13'34 -1°-36'-22 -788 Oct 09 j 13:02 min. Earth dist. -793 Apr 17 j 07:56 16°**≙**29'19 4.34162 AU min. Earth dist. 10°**Y**24'58 4.03606 AU direct -793 Jun 17 j 07:30 11°**≏**40'55 direct -788 Dec 08 j 00:06 5°Υ16'22 -793 Oct 21 j 02:51 29°**£**42'31 evening set -787 Apr 13 j 02:59 24°**Y**30'15 evening set -793 Oct 22 j 09:55 max. Earth dist. -793 Oct 31 j 19:08 6.28523 AU conjunction -787 Apr 26 j 20:23 27°Υ41'10 0°-51'-16 2°ML07'21 minimum elong -787 Apr 26 j 20:26 27°**Y**41'12 0°51'17 conjunction -793 Nov 02 j 17:15 2°M33'30 0°47'13 max. Earth dist. -787 Apr 28 j 22:40 28°**Ƴ**10′21 6.08848 AU -793 Nov 02 j 17:17 -787 May 06 j 20:03 0°8 minimum elong 2°M33'31 0°47'13 -793 Nov 15 i 06:53 -787 May 10 j 15:29 0°852'40 morning rise 5°M24'16 morning rise -793 Dec 30 i 15:17 -787 Jul 18 i 21:59 15°M 15°8 -792 Mar 18 j 13:39 -787 Sep 15 i 23:05 retrograde 23°M27'23 retrograde 20°810'37 -792 May 18 i 13:22 18°MJ34'22 0°43'41 min. Earth dist. -787 Nov 13 j 07:20 15°815'58 4.15087 AU opposition min. Earth dist. -792 May 19 i 18:15 18°ML25'08 4.22192 AU opposition -787 Nov 14 j 11:30 15°**8**06'22 0°-49'-32 -792 Jun 18 j 21:22 -787 Nov 15 j 06:11 15°R\ 15°RM direct -792 Jul 18 j 23:52 13°M37'39 direct -786 Jan 12 j 11:55 10°806'05 -786 Mar 10 j 21:19 -792 Aug 17 j 22:05 15°M 15°8 -792 Nov 11 j 20:51 0°×7 evening set -786 May 19 j 06:01 28°848'21 evening set -792 Nov 21 j 03:26 2°**х¹**07'48 -786 May 24 j 13:46 $\Pi^{\circ}0$ -792 Dec 03 j 19:46 5°**х**104'51 0°09'14 -786 Jun 02 j 00:17 1°**Д**53'59 0°-13'-15 conjunction conjunction -792 Dec 03 j 19:47 5°**х**¹04'52 -786 Jun 02 j 00:18 1°耳54′00 0°13'15 minimum elong 0°09'13 minimum elong -792 Dec 03 j 13:00 5°**х** 00′55 -786 Jun 01 j 19:38 1°**I**I51′23 behind sun begin behind sun begin -792 Dec 04 j 02:35 5°**х** 08'49 -786 Jun 02 j 04:58 1°**I**I56'36 behind sun end behind sun end -792 Dec 02 j 13:23 -786 Jun 03 j 12:38 max. Earth dist. 4°**≯**47'07 6.15650 AU max. Earth dist. 2°**Ⅱ**14'27 6.21696 AU morning rise -792 Dec 16 j 12:37 8°**₹**02'29 morning rise -786 Jun 15 j 17:53 4°**Ⅲ**59'05 desc. node -791 Feb 26 j 17:24 22°**∡**'37'56 asc. node -786 Oct 06 j 02:27 22°**Ⅲ**56'35 retrograde -791 Apr 23 j 07:50 27°**₹**08'09 retrograde -786 Oct 18 j 11:05 23°**Ⅱ**11'37 -791 Jun 23 j 02:48 22°**∡**12'26 0°-18'-54 min. Earth dist. -786 Dec 16 j 11:16 18°**Ⅲ**15'48 4.28015 AU opposition min. Earth dist. -791 Jun 23 j 16:39 22°**₹**07'57 4.09321 AU -786 Dec 17 j 02:45 18°**Ⅲ**10′36 0°11'01 opposition

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -785 in astronomical counting style is the year 786 BCE in historical counting style. -785 Feb 15 i 09:44 13°**Ⅱ**08'09 -779 Jan 06 i 06:31 16°**х** 36′04 direct desc. node -785 Jun 16 i 14:07 0ಂತಾ -779 Mar 21 j 19:05 0°궁 -785 Jun 22 j 15:19 1°9518'55 -779 Apr 28 j 11:47 2°**る**09'38 evening set retrograde -779 Jun 05 j 11:01 30°₽**⋌** 4°517'21 0°27'34 -785 Jul 06 j 04:24 opposition -779 Jun 28 j 06:07 27°**х** 13'24 0°-28'-1 conjunction -785 Jul 06 j 04:22 0°27'35 min. Earth dist. -779 Jun 28 j 15:59 27°**∡**10′11 minimum elong 4°9517'20 4.07725 AU 22°**х** 19′22 -785 Jul 06 j 13:17 -779 Aug 27 j 02:12 max. Earth dist. 4°9522'13 6.33721 AU direct -785 Jul 19 j 15:27 -779 Nov 07 j 17:17 0°궁 morning rise 7°9514'32 11°**පි**26'10 -785 Nov 18 j 11:59 -779 Dec 29 j 21:02 retrograde 24°935'27 evening set -784 Jan 17 j 09:44 opposition 19°**©**38'19 1°05'08 -784 Jan 17 j 12:24 min. Earth dist. 19°**5**37'27 4.38243 AU conjunction -778 Jan 11 j 18:51 14°**る**31'07 0°-38'-57 -784 Mar 19 j 00:30 -778 Jan 11 j 18:49 14°る31'06 0°38'59 direct 14°934'58 minimum elong -784 Jul 13 j 01:57 -778 Jan 11 j 18:57 14°**ප**31'11 0° Ω max. Earth dist. 6.02799 AU evening set -784 Jul 24 j 06:39 2°**Ω**23'40 morning rise -778 Jan 24 j 18:54 17°る37'29 -778 Mar 22 j 12:32 0°**≈** conjunction -784 Aug 06 j 11:42 5°**Ω**15'37 0°58'59 retrograde -778 Jun 05 j 02:03 7°≈47'39 minimum elong -784 Aug 06 j 11:40 5°**Ω**15'35 0°58'59 opposition -778 Aug 04 j 09:43 2°≈47'29 -1°-24'-29 max. Earth dist. -784 Aug 05 j 19:25 5°**Ω**06'45 6.41350 AU min. Earth dist. -778 Aug 03 j 23:29 2°≈50'52 3.99384 AU morning rise -784 Aug 19 j 13:32 8°**Ω**05'59 -778 Aug 26 j 20:41 30°Ŗる -784 Sep 21 j 18:50 15°Ω direct -778 Oct 01 j 23:58 27°る54'10 retrograde -784 Dec 17 j 20:05 24°**Ω**59'53 -778 Nov 06 j 16:23 0°**≈** opposition -783 Feb 16 i 03:50 20°Ω06'03 1°39'24 -777 Jan 24 j 20:36 15°**≈** min. Earth dist. -783 Feb 16 j 22:10 20°Ω00'06 4.42927 AU evening set -777 Feb 03 j 20:53 17°≈22'41 direct -783 Apr 19 j 14:28 15°Ω03'09 -783 Aug 11 j 21:57 0°m conjunction -777 Feb 17 i 01:37 20°≈32'56 -1°-7'-43 -783 Aug 24 j 15:18 2°m43'17 minimum elong -777 Feb 17 i 01:35 20°≈32'54 1°07'44 evening set max. Earth dist. -783 Sep 04 j 23:04 5° m/11'07 6.42638 AU max. Earth dist. -777 Feb 18 j 07:05 20°≈50'39 5.97794 AU -777 Mar 02 j 09:38 23°≈44'55 morning rise -783 Sep 06 j 12:17 5° m 31'25 1°13'32 -777 Mar 29 j 07:20 0°**∀** conjunction -783 Sep 06 j 12:16 14°**¥** 16'45 5° m/31'25 1°13'32 -777 Jul 12 j 19:00 minimum elong retrograde -783 Sep 19 j 06:24 8°Mp18'11 -777 Sep 10 j 16:36 9°**升**13'00 -1°-49'-17 morning rise opposition -782 Jan 17 j 14:45 25° m 12'32 min. Earth dist. -777 Sep 09 j 12:53 9°**升**22'22 3.98436 AU retrograde -782 Mar 19 j 06:06 20° m/20'35 1°46'36 -777 Nov 07 j 14:43 opposition direct 4° ¥ 18'16 -782 Mar 20 j 13:21 -776 Mar 12 j 01:24 20° m 10'36 4.40858 AU 23°**)**(47'43 min. Earth dist. evening set -782 May 21 j 00:26 15° Mp 19'10 direct -776 Mar 25 j 13:52 -782 Sep 10 j 04:42 27°\mathcal{H}00'01 -1°-10'-31 0∘ଫ conjunction -782 Sep 24 j 10:20 3°**2**05'19 -776 Mar 25 j 13:54 27° ¥ 00'02 1°10'31 evening set minimum elong max. Earth dist. -782 Oct 05 j 02:44 5°**≙**27'04 6.37279 AU max. Earth dist. -776 Mar 27 j 14:32 27°**)** 28'54 6.00862 AU -776 Apr 07 j 06:01 $0^{\circ}\Upsilon$ -782 Oct 07 j 02:16 conjunction 5°**⊆**53'26 1°07'53 morning rise -776 Apr 08 j 05:17 0°Y13'41 minimum elong -782 Oct 07 j 02:17 5°**≙**53'27 1°07'53 retrograde -776 Aug 17 j 05:01 20°Y20'17 morning rise -782 Oct 19 j 16:08 8°**£**40'42 min. Earth dist. -776 Oct 14 j 10:54 15°**Υ**26'09 4.05211 AU retrograde -781 Feb 18 j 13:13 26°**♀**02'16 opposition -776 Oct 15 j 19:32 15°Υ15'00 -1°-31'-29 -781 Apr 20 j 11:35 21°**2**10'28 1°24'18 direct -776 Dec 13 j 00:22 10°**Y**17'18 opposition min. Earth dist. -781 Apr 21 j 21:33 20°**2**59'39 4.32536 AU -775 Apr 18 j 03:58 29° **Y**26'15evening set -781 Jun 21 j 18:39 -775 Apr 20 j 14:39 0°8 direct 16°**♀**11'25 -781 Oct 06 i 03:45 0°M -781 Oct 25 i 12:34 -775 May 01 j 21:57 2°836'34 0°-46'-43 evening set conjunction -775 May 01 j 22:00 0°46'44 max. Earth dist. -781 Nov 05 j 07:41 6°M44'09 6.26665 AU minimum elong 2°**8**36'35 max. Earth dist. -775 May 04 i 00:10 3°**と**05'34 6.10709 AU conjunction -781 Nov 07 i 03:10 7°ML08'55 0°42'37 morning rise -775 May 15 i 17:03 5°847'14 -781 Nov 07 i 03:13 7°ML08'56 0°42'37 -775 Jun 27 j 04:03 15°8 minimum elong -781 Nov 19 j 16:56 10°ML00'33 retrograde -775 Sep 20 j 12:41 24°**8**55'25 morning rise -781 Dec 12 j 05:23 -775 Nov 17 j 22:30 15°M min. Earth dist. 20°800'39 4.17001 AU 19°**8**51'33 0°-41'-30 -780 Mar 23 j 11:38 -775 Nov 19 j 01:18 retrograde 28°M12'22 opposition -774 Jan 07 j 16:42 23°M19'09 opposition -780 May 23 j 10:36 0°35'32 15°R₩ -780 May 24 j 14:16 14°**8**50'55 min. Earth dist. 23°M10'18 4.20234 AU direct -774 Jan 17 j 05:15 direct -780 Jul 23 j 17:16 18° M22'53 -774 Jan 26 j 19:41 15°8 -780 Oct 25 j 15:46 0°**∡**¹ -774 May 08 j 07:12 $0^{\circ}\Pi$ -780 Nov 25 j 18:58 6°**х** 58′00 -774 May 24 j 01:21 3°**Ⅱ**28′12 evening set evening set -780 Dec 07 j 07:16 9°**∡**³39'25 6.13781 AU max. Earth dist. conjunction -774 Jun 06 j 19:04 6°**Ⅲ**32'51 0°-7'-31 -780 Dec 08 j 11:41 conjunction 9°**х** 56'03 0°03'12 minimum elong -774 Jun 06 j 19:05 6°**Ⅲ**32'52 0°07'32

minimum elong

behind sun begin

behind sun end

morning rise

-780 Dec 08 j 11:41

-780 Dec 08 j 03:42

-780 Dec 08 j 19:39

-780 Dec 21 j 05:25

9°**х** 56′03

9°**х** 51′24

10°**≯**00'42

12°**₹**54'51

0°03'11

behind sun begin

behind sun end

max. Earth dist.

morning rise

-774 Jun 06 j 11:32

-774 Jun 07 j 02:38

-774 Jun 08 j 02:16

-774 Jun 20 j 12:13

6°**Ⅲ**28'39

6°**Ⅲ**37′04

6°**Ⅲ**50′21

9°**Ⅱ**36'56

6.23506 AU

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -774 in astronomical counting style is the year 775 BCE in historical counting style. 21°**Ⅱ**18'52 8°**∡**³30′03 asc. node -774 Aug 17 j 03:24 desc. node -768 Nov 16 i 03:53 -774 Oct 22 j 18:55 27°**Ⅱ**41'25 -768 Nov 30 j 10:10 11°**∡**¹46'59 retrograde evening set -774 Dec 21 j 11:12 22°**II**40'54 0°19'11 max. Earth dist. -768 Dec 12 j 03:47 14°**∡**31'59 opposition 6.12256 AU min. Earth dist. -774 Dec 20 j 22:47 22°**II**45'03 4.29574 AU -773 Feb 19 j 23:29 17°**Ⅲ**38'13 -768 Dec 13 j 03:30 14°**∡**¹45'55 0°-2'-59 direct conjunction -768 Dec 13 j 03:29 -773 May 31 j 00:45 14°**∡**¹45'55 0°03'00 0ಂತಾ minimum elong -768 Dec 12 j 19:29 -773 Jun 27 j 04:47 5°9545'39 14°**∡**′41'14 evening set behind sun begin behind sun end -768 Dec 13 j 11:28 14°**∡** 50'35 -773 Jul 10 j 17:06 -768 Dec 25 j 21:49 17°**∡**¹45'39 conjunction 8°543'12 0°32'38 morning rise -773 Jul 10 j 17:04 minimum elong 8°9543'11 0°32'39 -767 Feb 21 j 06:38 0°ರ max. Earth dist. -773 Jul 10 j 23:18 8°9346'36 6.34925 AU retrograde -767 May 03 j 16:14 7°**る**08'19 -773 Jul 24 j 02:50 -767 Jul 03 j 08:37 2°**る**11'34 morning rise 11°539'23 opposition 0°-36'-53 -773 Nov 22 j 16:04 min. Earth dist. -767 Jul 03 j 16:36 retrograde 28°**9**55'43 2°**る**08'58 4.06455 AU opposition -772 Jan 21 j 15:31 23°959'08 1°11'13 -767 Jul 20 j 19:59 30°₹**҂**7 min. Earth dist. -772 Jan 21 j 20:00 23°957'40 4.39036 AU direct -767 Sep 01 j 01:04 27°**х** 17′46 direct -772 Mar 23 j 08:49 18°955'49 -767 Oct 12 j 08:38 0°궁 -772 Jun 26 j 07:52 $0^{\circ}\Omega$ evening set -766 Jan 03 j 18:08 16°**පි**27'36 evening set -772 Jul 28 j 16:07 6°**Ω**43'21 conjunction -766 Jan 16 j 16:40 19°**る**33'18 0°-44'-6 conjunction -772 Aug 10 j 19:53 9°**Ω**34'41 1°02'04 minimum elong -766 Jan 16 j 16:38 19°**る**33'16 0°44'08 minimum elong -772 Aug 10 j 19:50 9°**£**34'39 1°02'04 max. Earth dist. -766 Jan 16 j 20:01 19°る35'18 6.01882 AU max. Earth dist. -772 Aug 09 j 22:56 9°**Ω**23'17 6.41667 AU morning rise -766 Jan 29 i 17:48 22°る40'31 morning rise -772 Aug 23 j 20:45 12°Ω24'30 -766 Mar 02 j 14:29 0°≈ -772 Sep 04 i 23:19 15°€ retrograde -766 Jun 10 j 06:10 12°≈55'21 retrograde -772 Dec 22 j 02:55 29°**Ω**17'44 opposition -766 Aug 09 j 13:34 7°≈54'41 -1°-30'-14 -771 Feb 20 j 10:32 24°Ω24'16 1°42'04 min. Earth dist. -766 Aug 08 j 23:51 7°≈59'14 3.98947 AU opposition min. Earth dist. -771 Feb 21 j 07:46 24°Ω17'24 4.42780 AU direct -766 Oct 06 j 23:57 3°≈01'20 direct -771 Apr 23 j 23:52 19°**Ω**21'31 -765 Jan 07 j 09:33 15°≈ -771 Jul 26 j 01:16 -765 Feb 08 j 22:46 22°≈30'50 0°m evening set -771 Aug 28 j 22:23 7° m 02'30 evening set -771 Sep 09 j 04:07 9°m/29'29 6.42033 AU -765 Feb 22 j 04:30 25°≈41'30 -1°-9'-48 max. Earth dist. conjunction -765 Feb 22 j 04:29 1°09'49 minimum elong 25°≈41'29 26°≈00'55 5.97855 AU -771 Sep 10 j 18:40 9° m 50'33 1°13'56 -765 Feb 23 j 12:48 conjunction max. Earth dist. -771 Sep 10 j 18:39 9° m 50'33 1°13'56 -765 Mar 07 j 13:32 28°≈53'54 minimum elong morning rise -765 Mar 12 j 04:50 -771 Sep 23 j 11:56 12° m 37'16 0°**∀** morning rise -770 Jan 21 j 22:52 19°**)** 24'43 29° m 34'37 -765 Jul 17 j 21:32 retrograde retrograde -770 Mar 23 j 16:11 24° m/42'46 1°45'12 -765 Sep 15 j 17:57 14° **★**20'36 -1°-49'-18 opposition opposition -765 Sep 14 j 13:29 min. Earth dist. -770 Mar 24 j 23:10 24° m/32'53 4.39857 AU min. Earth dist. 14°**)** 30'15 3.98994 AU -770 May 25 j 08:38 direct 19° m/41'42 direct -765 Nov 12 j 16:36 9°**¥**25'30 -770 Aug 24 j 02:21 0∘**⊽** evening set -764 Mar 17 j 04:29 28°¥53'14 evening set -770 Sep 28 j 17:58 7°**£**30'21 -764 Mar 21 j 21:43 $0^{\circ}\Upsilon$ max. Earth dist. -770 Oct 09 j 10:34 9°**£**52'42 6.35967 AU conjunction -764 Mar 30 j 18:02 2°Y05'32 -1°-8'-38 conjunction -770 Oct 11 j 09:27 10° **△**18'49 1°05'25 minimum elong -764 Mar 30 j 18:04 2°**Y**'05'33 1°08'39 -770 Oct 11 j 09:29 10°**♀**18'50 1°05'24 max. Earth dist. -764 Apr 01 j 20:58 2°Υ35'40 6.01864 AU minimum elong -770 Oct 23 i 23:04 13°**ഫ**06'31 -764 Apr 13 j 10:09 5°Υ19'04 morning rise morning rise -769 Feb 04 i 01:12 -764 Aug 22 j 01:59 25°**Y**19'16 0°M retrograde -769 Feb 23 i 05:03 0°M34'03 -764 Oct 19 i 07:09 20°**Υ**25'06 4.06542 AU retrograde min. Earth dist. -769 Mar 14 j 08:28 -764 Oct 20 i 15:27 20°**Y**14'05 -1°-26'-2 30°R. ← opposition -769 Apr 25 i 03:07 15°**Y**16′00 25°**£**42'13 1°18'50 direct -764 Dec 17 j 22:02 opposition -769 Apr 26 i 13:19 min. Earth dist. 25°**£**31'20 4.30981 AU -763 Apr 03 j 20:54 0°8 -769 Jun 26 j 08:31 direct 20°**£**43'34 -763 Apr 23 j 04:46 4°**8**21'22 evening set -769 Sep 18 j 08:41 0°M -769 Oct 29 j 23:02 evening set 8°M.52'49 conjunction -763 May 06 j 22:55 7°**8**31'07 0°-41'-53 -769 Nov 09 j 19:03 -763 May 06 j 22:58 max. Earth dist. 11°M20'57 6.25001 AU minimum elong 7°**8**31'08 0°41'52 max. Earth dist. -763 May 08 j 21:59 7°**8**58'12 6.12240 AU morning rise 10°**8**41'10 conjunction -769 Nov 11 j 13:43 11°ML45'19 0°37'42 -763 May 20 j 18:18 minimum elong -769 Nov 11 j 13:45 11°M45'20 0°37'42 -763 Jun 09 j 00:09 15°₩ -769 Nov 24 j 03:55 14°MJ37'49 retrograde -763 Sep 25 j 01:52 29°**8**41'04 morning rise -769 Nov 25 j 18:58 15°M -763 Nov 23 j 15:07 24°**8**37'33 0°-33'-13 opposition -768 Feb 12 j 18:19 min. Earth dist. -763 Nov 22 j 14:00 24°846'04 4.18573 AU 0°**√** -768 Mar 28 j 08:28 retrograde 2°×757'31 direct -762 Jan 21 j 23:21 19°**8**36'31 -768 May 12 j 18:48 30°RM -762 Apr 20 j 11:54 Π °0 opposition -768 May 28 j 08:03 28°M03'55 0°27'06 evening set -762 May 28 j 21:25 8°**Ⅲ**10′13 min. Earth dist. -768 May 29 j 08:40 27°M56'02 4.18567 AU direct -768 Jul 28 j 09:24 23°ML08'01 conjunction -762 Jun 11 j 14:50 11°**I**14'05 0°-1'-41 -768 Oct 05 j 22:41 0°×7 minimum elong -762 Jun 11 j 14:51 11°**I**14'05 0°01'42

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -762 in astronomical counting style is the year 763 BCE in historical counting style. 11°**Ⅱ**09'26 behind sun begin -762 Jun 11 i 06:30 max. Earth dist. -757 Nov 14 j 07:11 15°M56'40 6.23821 AU behind sun end -762 Jun 11 j 23:11 11°**Ⅱ**18'43 max. Earth dist. 6.25012 AU -762 Jun 12 j 19:43 11°**Ⅲ**30′14 -757 Nov 15 j 23:12 16°M19'36 0°32'40 conjunction 0°32'39 -762 Jun 25 j 07:06 14°**Ⅱ**17'10 -757 Nov 15 j 23:14 minimum elong 16°ML19'37 morning rise 14°**Ⅱ**44'38 -762 Jun 27 j 08:44 -757 Nov 28 j 13:37 19°M12'43 asc. node morning rise -762 Sep 19 j 04:53 -756 Jan 18 j 16:35 0°**∡**¹ 0ಂತಾ -762 Oct 27 j 04:31 -756 Apr 02 j 05:25 7°**∡**³38'38 retrograde 2°9514'38 retrograde -762 Dec 03 j 23:44 -756 Jun 02 j 03:51 2°**х** 44′40 30°R,Ⅲ opposition 0°18'39 27°**I**14'43 0°27'19 opposition -762 Dec 25 j 20:38 min. Earth dist. -756 Jun 03 j 03:38 2°**≯**37'02 4.17349 AU 27°**Ⅲ**18′07 min. Earth dist. -762 Dec 25 j 10:28 4.30888 AU -756 Jun 24 j 20:59 30°RML direct -761 Feb 24 j 13:01 22°**Ⅱ**11'54 direct -756 Aug 02 j 02:40 27° ML 49'03-761 May 12 j 01:23 -756 Sep 08 j 18:37 0ಂತಾ 0°⊀ -761 Jul 01 j 19:54 -756 Sep 27 j 14:19 evening set 10°9516'48 desc. node 2°**х**³31'42 evening set -756 Dec 04 j 23:20 16°**∡**30'21 conjunction -761 Jul 15 j 07:03 13°9513'30 0°37'36 -761 Jul 15 j 07:00 minimum elong 13°9513'28 0°37'36 conjunction -756 Dec 17 j 17:05 19°**∡**¹29'57 0°-8'-51 max. Earth dist. -761 Jul 15 j 08:24 13°9514'14 6.35939 AU minimum elong -756 Dec 17 j 17:05 19°**∡**¹29'56 0°08'52 morning rise -761 Jul 28 j 15:46 16°9508'49 behind sun begin -756 Dec 17 j 10:08 19°**х** 25′52 -761 Oct 10 j 17:45 $0^{\circ}\Omega$ behind sun end -756 Dec 18 j 00:01 19°**х** 34′01 retrograde -761 Nov 26 j 23:26 3°**£**21'11 max. Earth dist. -756 Dec 16 j 19:38 19°**∡**17'19 6.11112 AU -760 Jan 13 j 16:24 30°Rூ morning rise -756 Dec 30 j 12:11 22°**∡**30′29 opposition -760 Jan 25 j 23:20 28°925'06 1°17'02 -755 Feb 01 i 17:42 0°정 min. Earth dist. -760 Jan 26 i 06:24 28°9522'47 4.39720 AU retrograde -755 May 08 j 14:30 11°る59'23 direct -760 Mar 27 j 20:07 23°9521'46 opposition -755 Jul 08 i 07:26 7°**る**02'08 0°-45'-14 -760 Jun 06 j 15:22 $0^{\circ}\Omega$ min. Earth dist. -755 Jul 08 j 12:13 7°る00'34 4.05495 AU -760 Aug 02 j 02:55 11°Ω08'15 -755 Sep 05 j 18:50 2°る08'28 evening set direct max. Earth dist. -760 Aug 14 j 07:38 13°**Ω**47'00 6.41981 AU -754 Jan 08 j 12:16 21°る20'33 evening set -760 Aug 15 j 05:42 13°Ω59'01 1°04'54 -754 Jan 21 j 11:35 24°**♂**26'53 0°-48'-46 conjunction conjunction -760 Aug 15 j 05:40 minimum elong -754 Jan 21 j 11:33 13°**Ω**59'00 1°04'54 24°**පි**26'51 0°48'47 minimum elong -760 Aug 19 j 21:45 6.01183 AU max. Earth dist. -754 Jan 21 j 18:13 24°る30'52 15°**Ω** -760 Aug 28 j 05:13 -754 Feb 03 j 13:38 morning rise 16°**Ω**48'13 morning rise 27°る34'48 -760 Nov 06 j 12:15 -754 Feb 13 j 19:27 0° m 0°≈ -754 May 02 j 19:28 -760 Dec 26 j 09:18 3° m 40'43 retrograde 15°≈ -759 Feb 15 j 07:53 30°RΩ -754 Jun 15 j 07:59 retrograde 17°≈53'31 -754 Jul 29 j 01:07 -759 Feb 24 j 19:00 28°**Ω**47'35 1°44'16 opposition 15°R≈ -759 Feb 25 j 16:50 28°**Ω**40'34 4.42751 AU -754 Aug 14 j 13:24 min. Earth dist. opposition 12°≈52'19 -1°-35'-8 -759 Apr 28 j 08:50 -754 Aug 13 j 22:21 direct 23°**Ω**45′05 min. Earth dist. 12°≈57'20 3.98585 AU -759 Jul 06 j 03:22 0° m direct -754 Oct 11 j 22:15 7°≈58'46 evening set -759 Sep 02 j 07:01 11° Mp 26'14 -754 Dec 18 j 20:25 15°≈ max. Earth dist. -759 Sep 13 j 09:37 13° **m** 51'47 6.41669 AU evening set -753 Feb 13 j 21:03 27°≈29'18 -753 Feb 24 j 08:35 0°**)**€ conjunction -759 Sep 15 j 02:14 14° m 14'02 1°13'58 -759 Sep 15 j 02:14 14° m/ 14'02 1°13'58 -753 Feb 27 j 03:58 0°\(\pm\)40'27 -1°-11'-18 minimum elong conjunction -759 Sep 27 j 18:52 17° Mp 00'35 -753 Feb 27 j 03:57 0°\ 40'26 1°11'19 morning rise minimum elong -759 Dec 05 i 00:32 -753 Feb 28 i 15:41 1°**)**€01'54 5.97865 AU 0∘**⊽** max. Earth dist. -758 Jan 26 j 10:05 4°**£**00'01 -753 Mar 12 j 14:00 3°**¥**53'17 retrograde morning rise -758 Mar 21 j 08:14 -753 Jul 22 i 21:13 24°**)** 23'12 30°R ₩ retrograde -758 Mar 28 j 03:30 19°**¥**28'46 3.99397 AU opposition 29° m 08'16 1°43'14 min. Earth dist. -753 Sep 19 j 10:24 min. Earth dist. -758 Mar 29 i 11:50 28° m 57'58 4.39195 AU opposition -753 Sep 20 j 15:33 19°**¥**18'53 -1°-48'-32 direct -758 May 29 j 20:32 24° m 07'28 direct -753 Nov 17 j 13:01 14°¥23'28 -758 Aug 03 j 21:00 0∘**⊽** -752 Mar 05 j 15:26 $0^{\circ}\Upsilon$ -758 Oct 03 j 01:50 -752 Mar 22 j 04:51 3°Y50'23 evening set 11°**£**57'12 evening set -758 Oct 13 j 18:44 max. Earth dist. 14°**£**20'02 6.35065 AU 7°**Υ**'02'45 -1°-6'-20 conjunction -752 Apr 04 j 19:11 conjunction -758 Oct 15 j 17:02 14°**£**45'52 1°02'36 minimum elong -752 Apr 04 j 19:14 7°**Υ**02'46 1°06'20 7°**Ƴ**32'05 minimum elong -758 Oct 15 j 17:04 14°**£**45'54 1°02'37 max. Earth dist. -752 Apr 06 j 20:53 6.02613 AU 10°**Y**16′18 -758 Oct 28 j 06:22 17°**△**33'50 -752 Apr 18 j 12:17 morning rise morning rise -758 Dec 30 j 01:02 0°M -752 Aug 16 j 05:35 0° 8 -757 Feb 27 j 18:19 -752 Aug 26 j 19:05 0°811'12 retrograde 5°M05'53 retrograde -757 Apr 29 j 18:25 30°**Ŗ**Υ opposition 0°**M**13′50 1°12'57 -752 Sep 06 j 08:32

min. Earth dist.

direct

evening set

-757 May 01 j 02:45

-757 May 01 j 13:54

-757 Jun 30 j 20:09

-757 Aug 27 j 18:17

-757 Nov 03 j 08:29

-757 Nov 10 j 04:16

0°M03'33 4.29892 AU

30°R<u>₽</u>

0°M

15°M

25°**♀**15'33

13°M26'36

min. Earth dist.

opposition

evening set

direct

-752 Oct 24 j 00:23

-752 Oct 25 j 08:29

-752 Dec 22 j 17:11

-751 Mar 16 j 21:36

-751 Apr 28 j 03:38

25°**Y**17′04 4.07557 AU

-1°-20'-11

25°**Y**06′06

20°**Y**07′35

9°810'47

0°8

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -751 in astronomical counting style is the year 752 BCE in historical counting style. -751 May 11 j 22:17 12°**8**20'11 0°-36'-51 -746 Jul 05 i 05:42 0∘**⊽** conjunction minimum elong -751 May 11 j 22:20 12°**8**20'12 0°36'51 -746 Oct 07 j 08:36 16°**£**21'46 evening set max. Earth dist. -751 May 13 j 20:22 12°**8**46'38 6.13472 AU max. Earth dist. -746 Oct 18 j 00:24 18°**≏**44'28 6.33856 AU -751 May 23 j 13:25 15°₩ -751 May 25 j 17:34 15°**8**29'41 -746 Oct 19 j 23:21 19°**♀**10'46 0°59'27 morning rise conjunction 19°**≙**10'47 -751 Aug 06 j 17:12 -746 Oct 19 j 23:24 0°59'26 Π °0 minimum elong -751 Sep 29 j 16:00 4°**Ⅲ**22'28 -746 Nov 01 j 12:40 21°**♀**59'12 retrograde morning rise -746 Dec 09 j 06:45 -751 Nov 23 j 03:33 0° M 30°**₹**8 -751 Nov 27 j 04:35 min. Earth dist. 29°**8**27'15 4.19886 AU retrograde -745 Mar 04 j 10:32 9°**™**37'14 4°M₄45′02 opposition -751 Nov 28 j 03:43 29°**8**19'25 0°-24'-54 opposition -745 May 04 j 09:45 1°06'37 direct -750 Jan 26 j 16:06 24°**8**18'07 min. Earth dist. -745 May 05 j 18:30 4°M34'36 4.28357 AU -750 Mar 30 j 14:09 $0^{\circ}II$ -745 Jun 23 j 13:31 30°ŖΩ -750 May 08 j 02:53 7°**Ⅱ**17'04 -745 Jul 05 j 09:16 29°**₽**47'05 asc. node direct evening set -750 Jun 02 j 16:25 12°**Ⅲ**49'01 -745 Jul 17 j 04:45 $0^{\circ}M$ -745 Oct 25 j 07:36 15°M₀ -750 Jun 16 j 09:17 conjunction 15°**Ⅲ**52'07 0°04'10 evening set -745 Nov 07 j 18:12 18°ML01'44 minimum elong -750 Jun 16 j 09:16 15°**Ⅲ**52'07 0°04'11 max. Earth dist. -745 Nov 18 j 18:45 20° M $_{3}3'26$ 6.22094 AU behind sun begin -750 Jun 16 j 01:04 15°**Ⅱ**47'34 behind sun end -750 Jun 16 j 17:27 15°**I**I56'39 conjunction -745 Nov 20 j 09:14 20°M55'35 0°27'22 max. Earth dist. -750 Jun 17 j 10:49 16°**Ⅱ**06'21 6.26312 AU minimum elong -745 Nov 20 j 09:16 20°M55'36 0°27'22 morning rise -750 Jun 30 j 00:54 18°**Ⅲ**54'21 morning rise -745 Dec 03 j 00:05 23°M49'36 -750 Aug 23 j 13:57 0ಂತಾ -745 Dec 30 i 18:53 0°**∡**¹ retrograde -750 Oct 31 i 12:24 6°9545'36 retrograde -744 Apr 07 j 02:00 12°**₹**23'59 opposition -750 Dec 30 i 05:42 1°9546'10 0°35'11 opposition -744 Jun 07 j 01:00 7°**х** 29′38 0°09'55 min. Earth dist. -750 Dec 29 j 21:01 1°9549'03 4.32082 AU min. Earth dist. -744 Jun 07 i 22:11 7°**х** 22′50 4.15555 AU -749 Jan 12 i 19:35 30°RⅡ direct -744 Aug 06 j 18:04 2°**҂**³34'22 direct -749 Mar 01 j 01:30 26°**Ⅱ**43'11 desc. node -744 Aug 08 j 01:25 2°**҂**³34'32 -749 Apr 17 j 15:53 0ಂತಾ -744 Dec 09 j 14:52 21°×20'21 evening set -749 Jul 06 j 10:02 14°9545'39 evening set -744 Dec 22 j 09:12 24°**∡**¹20'57 conjunction 0°-14'-48 -749 Jul 19 j 20:10 17°5941'30 0°42'17 -744 Dec 22 j 09:11 conjunction minimum elong 24°**₹**20'56 0°14'50 -749 Jul 19 j 20:08 -744 Dec 22 j 05:47 minimum elong 17°9541'28 0°42'17 behind sun begin 24°**₹**18'56 -749 Jul 19 j 19:21 -744 Dec 22 j 12:35 max. Earth dist. 17°**©**41'03 6.36944 AU behind sun end 24°×22'56 -749 Aug 02 j 03:33 -744 Dec 21 j 14:52 6.09404 AU 20°935'53 max. Earth dist. 24°**∡**10′06 morning rise -749 Sep 17 j 08:54 -743 Jan 04 j 05:09 0° Ω 27°**х** 22′36 morning rise -749 Dec 01 j 05:47 7°**Ω**44'15 -743 Jan 15 j 11:34 0°ಕ retrograde -748 Jan 30 j 06:36 2°**Ω**48'39 1°22'20 -743 May 13 j 19:07 17°**ට**00'15 opposition retrograde min. Earth dist. -748 Jan 30 j 15:31 2°**Ω**45'44 4.40462 AU opposition -743 Jul 13 j 10:04 12°**る**02'27 0°-53'-34 -748 Feb 22 j 03:11 30°Rூ min. Earth dist. -743 Jul 13 j 12:45 12°**る**01'35 4.04022 AU direct -748 Apr 01 j 06:23 27°5645'23 direct -743 Sep 10 j 18:12 7°**る**08'54 -748 May 10 j 18:19 $0^{\circ}\Omega$ evening set -742 Jan 13 j 10:45 26°る25'09 -748 Aug 04 j 04:31 15°**Ω** -748 Aug 06 j 12:42 15°**Ω**30′16 conjunction -742 Jan 26 j 11:08 29°る32'26 0°-53'-16 evening set minimum elong -742 Jan 26 j 11:05 29°**る**32'24 0°53'17 -748 Aug 19 j 14:12 18° **Q**20'23 1°07'19 max. Earth dist. -742 Jan 26 j 22:33 29°**る**39'17 6.00084 AU conjunction -748 Aug 19 j 14:10 18°**Ω**20'22 -742 Jan 28 i 09:02 minimum elong 1°07'20 0°≈ -748 Aug 18 j 12:15 -742 Feb 08 i 14:13 max. Earth dist. 18°**Ω**06'16 6.42367 AU morning rise 2°≈41'18 -748 Sep 01 j 12:43 21°Ω08'59 -742 Apr 05 j 16:13 morning rise 15°**≈** -748 Oct 15 i 00:39 -742 Jun 20 j 15:02 0°m retrograde 23°≈05'06 -748 Dec 30 i 16:26 retrograde 8° m 00'34 opposition -742 Aug 19 j 18:05 18°≈03'26 -1°-39'-32 opposition -747 Mar 01 j 02:45 3° m 07'41 1°45'50 min. Earth dist. -742 Aug 19 j 00:34 18°≈09'17 3.98020 AU min. Earth dist. -747 Mar 02 j 02:35 3° 100'00 4.42749 AU -742 Sep 13 j 12:41 15°R≈ -747 Mar 27 j 10:22 30°R€ direct -742 Oct 16 j 23:21 13°≈09'48 -747 May 02 j 18:10 28°**Ω**05'18 -742 Nov 19 j 04:10 direct 15°**≈** -747 Jun 08 j 06:37 0°m -741 Feb 07 j 15:23 0°\ -741 Feb 19 j 01:20 evening set -747 Sep 06 j 13:44 15° Mp 46'22 evening set 2°\ 42'04 max. Earth dist. -747 Sep 17 j 15:33 18° Mp 11'39 6.41247 AU -741 Mar 04 j 09:12 5°**¥**53'41 -1°-12'-19 conjunction -747 Sep 19 j 08:19 18° **m** 34'01 1°13'36 -741 Mar 04 j 09:11 5°\ 53'41 1°12'20 conjunction minimum elong -747 Sep 19 j 08:19 18°M 34'01 1°13'35 -741 Mar 05 j 22:46 6°**₩**16'14 5.97865 AU minimum elong max. Earth dist. -747 Oct 02 j 00:04 21° Mp 20'26 -741 Mar 17 j 20:30 9°**₩**07'02 morning rise morning rise -747 Nov 13 j 01:26 -741 Jul 27 j 23:28 0∘**⊽** retrograde 29°**H**35'26 retrograde -746 Jan 30 j 18:28 8°**£**22'25 min. Earth dist. -741 Sep 24 j 10:44 24°**)** 41'23 3.99996 AU opposition -746 Apr 01 j 13:54 3°**₽**30'44 1°40'41 opposition -741 Sep 25 j 17:47 24°**)** 30'49 -1°-46'-54 min. Earth dist. -746 Apr 02 j 22:14 3°**£**20'26 4.38357 AU direct -741 Nov 22 j 15:17 19°**)** ₹35′02 -746 May 02 j 05:46 -740 Feb 16 j 04:13 $0^{\circ}\Upsilon$ 30°R M direct -746 Jun 03 j 05:02 28°m/30'17 -740 Mar 27 j 10:12 9°Y00'07 evening set

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -740 in astronomical counting style is the year 741 BCE in historical counting style. 12°Υ12'23 -1°-3'-26 -740 Apr 10 j 01:35 morning rise -735 Oct 06 i 02:13 25° m 32'03 conjunction -740 Apr 10 i 01:37 minimum elong 12°Y12'25 1°03'27 -735 Oct 26 j 22:19 0∘**⊽** 6.03787 AU 12°**△**37'36 -740 Apr 12 j 05:24 12°**Y**42'53 -734 Feb 04 j 02:18 max. Earth dist. retrograde 15°**Y**25'39 -740 Apr 23 j 19:10 -734 Apr 05 j 21:43 7°**-**45'55 morning rise opposition 1°37'41 -734 Apr 07 j 07:41 -740 Jul 03 j 11:50 0°8 min. Earth dist. 7°**£**35'06 4.37136 AU -740 Aug 31 j 17:23 5°**8**12'57 -734 Jun 07 j 11:43 retrograde direct 2°**£**45'40 -740 Oct 28 j 21:59 0°**8**18'38 -734 Oct 11 j 13:01 min. Earth dist. 4.09180 AU evening set 20°**£**40′23 -740 Oct 30 j 05:15 -1°-13'-33 max. Earth dist. -734 Oct 22 j 05:20 opposition 0°**8**07'58 23°**♀**03'54 6.32158 AU -740 Oct 31 j 04:36 30°**₹**Υ 25°**Y**09'03 direct -740 Dec 27 j 17:48 conjunction -734 Oct 24 j 03:49 23°**₽**30'02 0°56'02 23°**₽**30'03 -739 Feb 22 j 05:06 0° 8 minimum elong -734 Oct 24 j 03:51 0°56'01 -739 May 03 j 05:19 14°807'22 -734 Nov 05 j 17:02 26°**₽**19'09 evening set morning rise -739 May 07 j 01:51 15°8 -734 Nov 22 j 09:57 0°M retrograde -733 Mar 09 j 00:20 14° ML 05'01conjunction -739 May 17 j 00:00 17°**8**15'55 0°-31'-29 opposition -733 May 08 j 23:53 9°M12'38 1°00'02 minimum elong -739 May 17 j 00:02 17°**8**15'57 0°31'29 min. Earth dist. -733 May 10 j 07:46 9°M02'29 4.26278 AU max. Earth dist. -739 May 18 j 20:50 17°**8**41'31 6.15418 AU direct -733 Jul 09 j 18:53 4°M15'04 morning rise -739 May 30 j 19:09 20°**8**24'27 -733 Oct 08 j 12:44 15°M -739 Jul 14 j 18:16 $0^{\circ}\Pi$ evening set -733 Nov 12 j 03:38 22°M35'24 retrograde -739 Oct 04 j 03:42 9°**Ⅱ**07'10 max. Earth dist. -733 Nov 23 j 05:22 25°ML08'35 6.19806 AU opposition -739 Dec 02 j 17:18 4°**Ⅱ**04'28 0°-16'-22 min. Earth dist. -739 Dec 01 j 18:43 4°**П**12'07 4.21973 AU conjunction -733 Nov 24 i 18:55 25°M30'18 0°21'58 -738 Jan 07 i 04:48 30°R8 minimum elong -733 Nov 24 i 18:56 25°MJ30'19 0°21'58 direct -738 Jan 31 i 09:23 29°802'51 morning rise -733 Dec 07 i 10:29 28°M25'35 -738 Feb 24 j 22:20 $\Pi^{\circ}0$ -733 Dec 14 i 07:31 0°**∡**¹ -738 Mar 18 j 15:56 2°**Ⅱ**15'39 retrograde -732 Apr 12 j 02:09 17°**∡**10'46 asc node -738 Jun 07 j 11:23 17°**Ⅱ**28'00 -732 Jun 11 j 23:16 12°**∡** 16′01 0°01'08 evening set opposition min. Earth dist. -732 Jun 12 j 18:44 12°**渘**09'45 4.13215 AU -738 Jun 21 j 03:26 20°II29'53 0°09'51 desc. node -732 Jun 19 j 00:38 11°**∡**'21'44 conjunction -738 Jun 21 j 03:25 -732 Aug 11 j 11:46 7°**∡**¹21′03 20°II29'52 0°09'52 direct minimum elong -738 Jun 20 j 20:44 20°**I**I26'11 evening set -732 Dec 14 j 08:11 behind sun begin 26°**х** 13′49 -738 Jun 21 j 10:06 20°**Ⅲ**33'34 behind sun end 29°**х** 15′43 0°-20′-42 max. Earth dist. -738 Jun 22 j 01:34 20°**Ⅱ**42'10 -732 Dec 27 j 03:28 6.28382 AU conjunction -738 Jul 04 j 18:00 -732 Dec 27 j 03:27 23°**Ⅲ**30'46 29° ₹15'43 0°20'43 morning rise minimum elong -732 Dec 26 j 13:36 -738 Aug 04 j 04:46 29°**₹**07'30 6.07242 AU max. Earth dist. 0ಂತಾ -738 Nov 04 j 19:37 -732 Dec 30 j 06:03 11°5613'14 0°ಕ retrograde -737 Jan 03 j 13:30 -731 Jan 09 j 00:20 2°**る**18'45 opposition 6°514'18 0°42'41 morning rise min. Earth dist. -737 Jan 03 j 07:47 6°9516'12 4.33958 AU retrograde -731 May 19 j 02:41 22°る06'37 direct -737 Mar 05 j 14:50 1°5911'10 opposition -731 Jul 18 j 14:58 17°る08'22 -1°-1'-37 evening set -737 Jul 10 j 21:35 19°9508'49 min. Earth dist. -731 Jul 18 j 14:28 17°る08'32 4.02271 AU direct -731 Sep 15 j 17:35 12°る15'00 -737 Jul 24 j 06:31 22°503'32 0°46'36 -730 Jan 11 j 18:31 conjunction 0°≈ -737 Jul 24 j 06:28 22°9503'30 0°46'36 -730 Jan 18 j 12:45 1°≈36'32 minimum elong evening set max. Earth dist. -737 Jul 24 j 01:42 22°9500'54 6.38460 AU -737 Aug 06 j 12:37 24°956'45 conjunction -730 Jan 31 j 14:04 4°≈44'48 0°-57'-23 morning rise -737 Aug 30 j 10:00 -730 Jan 31 j 14:01 $0^{\circ}\Omega$ minimum elong 4°**≈**44'46 0°57'24 -737 Dec 05 i 08:07 -730 Feb 01 i 05:04 4°≈53'50 retrograde 11°Ω59'52 max. Earth dist. 5.98892 AU -736 Feb 03 i 11:09 7°Ω04'37 1°26'58 7°≈54'46 opposition morning rise -730 Feb 13 j 18:30 -736 Feb 03 i 22:11 min. Earth dist. 7°**Ω**01'01 4.41534 AU -730 Mar 16 j 09:50 15°**≈** direct -736 Apr 05 i 13:38 2°Ω01'20 retrograde -730 Jun 25 j 23:08 28°≈23'32 -736 Jul 19 j 08:27 15°Ω min. Earth dist. -730 Aug 24 j 04:15 23°≈28'22 3.97539 AU -736 Aug 10 j 18:31 19°**Ω**43'36 opposition -730 Aug 25 j 01:21 23°≈21'18 -1°-43'-9 evening set direct -730 Oct 22 j 03:23 18°≈27'29 22°Ω33'02 1°09'17 0°**₩** conjunction -736 Aug 23 j 18:56 -729 Jan 20 j 10:10 -729 Feb 24 j 08:25 -736 Aug 23 j 18:55 minimum elong 22°**Ω**33'01 1°09'17 evening set 8°**₩**00'55 -736 Aug 22 j 14:44 max. Earth dist. 22°**Ω**17'41 6.42896 AU -729 Mar 09 j 17:37 morning rise -736 Sep 05 j 16:13 25°**Ω**20'58 conjunction 11°**)** 12'59 -1°-12'-44 -736 Sep 27 j 15:49 minimum elong -729 Mar 09 j 17:37 11°**)** 12′59 1°12'44 0° m -735 Jan 03 j 19:24 12° Mp 11'34 -729 Mar 11 j 12:24 11°**)** 38′37 5.98131 AU retrograde max. Earth dist. -735 Mar 05 j 07:14 7° **m**) 18'57 1°46'47 -729 Mar 23 j 05:51 14°**)**€26'38 opposition morning rise $0^{\circ}\Upsilon$ -735 Mar 06 j 09:15 4.42702 AU -729 Jun 06 j 04:41 min. Earth dist. 7° **m** 10'36 -729 Aug 02 j 05:41 4°Υ51'49 direct -735 May 07 j 00:01 2° My 16'44retrograde evening set -735 Sep 10 j 17:09 19° m 57'59 -729 Sep 29 j 07:22 30°**₹** max. Earth dist. -735 Sep 21 j 14:28 22°**m**21'09 6.40598 AU opposition -729 Sep 30 j 21:48 29°**)** 46'55 -1°-44'-20 min. Earth dist. -729 Sep 29 j 14:15 29°**米**57'40 4.00956 AU -735 Sep 23 j 10:53 22° m 45'34 1°12'49 direct -729 Nov 27 j 21:03 24°**¥**50'43 conjunction -735 Sep 23 j 10:54 22° Mp 45'34 1°12'50 -728 Jan 24 j 09:56 $0^{\circ}\Upsilon$ minimum elong

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 16 Attention, astronomical year style is used: The year -728 in astronomical counting style is the year 729 BCE in historical counting style.

Attention, astronomi	ical year style is used: T		n astronomical coun	ting style is the year 7	29 BCE in historical co	unting style.	
evening set	-728 Apr 01 j 17:10	14° Υ 12'28		morning rise	-723 Oct 10 j 07:51	29° m 54'11	
					-723 Oct 10 j 18:28	0∘ ⊽	
conjunction	-728 Apr 15 j 09:13	17° Ƴ 24'21	-1°00'00	retrograde	-722 Feb 08 j 13:57	17° ≙ 04'17	
minimum elong	-728 Apr 15 j 09:16	17° Y 24′23	1°00'00	opposition	-722 Apr 10 j 10:12	12° ≏ 12'38	1°34'01
max. Earth dist.	-728 Apr 17 j 13:45	17° Ƴ 55'07	6.05312 AU	min. Earth dist.	-722 Apr 11 j 20:44	12° ≏ 01'39	4.35761 AU
morning rise	-728 Apr 29 j 03:27	20° Ƴ 37'09		direct	-722 Jun 11 j 22:43	7° ≙ 12'45	
	-728 Jun 10 j 18:23	9° 8		evening set	-722 Oct 15 j 21:40	25° ≙ 10'51	
retrograde	-728 Sep 05 j 13:11	10° 8 15'14		max. Earth dist.	-722 Oct 26 j 12:50	27° ≏ 34'23	6.30447 AU
min. Earth dist.	-728 Nov 02 j 18:15	5° 8 21'11	4.11074 AU				
opposition	-728 Nov 04 j 01:51	5° 8 10'25	-1°-6'-19	conjunction	-722 Oct 28 j 12:13	28° ≏ 01'07	0°52'08
direct	-727 Jan 01 j 16:55	0° 8 11'04		minimum elong	-722 Oct 28 j 12:16	28° ₽ 01'09	0°52'07
	-727 Apr 20 j 01:21	15° 8			-722 Nov 06 j 06:57	0° M	
evening set	-727 May 08 j 07:17	19° 8 03'55		morning rise	-722 Nov 10 j 01:43	0°M51'02	
					-721 Jan 22 j 05:09	15° ™	
conjunction	-727 May 22 j 01:52	22° 8 11'32	0°-25'-50	retrograde	-721 Mar 13 j 19:31	18° M 44'50	
minimum elong	-727 May 22 j 01:54	22° 8 11'33	0°25'51		-721 May 04 j 20:11	15°RM	
max. Earth dist.	-727 May 23 j 19:23	22° 8 35'08	6.17508 AU	opposition	-721 May 13 j 18:51	13°M52'11	0°52'43
morning rise	-727 Jun 04 j 20:41	25° 8 18'58		min. Earth dist.	-721 May 15 j 01:34	13°M42'23	4.24339 AU
	-727 Jun 26 j 01:35	Π $^{\circ}0$		direct	-721 Jul 14 j 10:17	8°M54'58	
retrograde	-727 Oct 08 j 17:19	13° Ⅱ 51'37			-721 Sep 18 j 03:02	15° M ₊	
min. Earth dist.	-727 Dec 06 j 11:16	8° Ⅱ 56′02	4.24033 AU	evening set	-721 Nov 16 j 17:04	27°M20'12	
opposition	-727 Dec 07 j 06:54	8° Ⅱ 49'24	0°-7'-41	max. Earth dist.	-721 Nov 27 j 23:07	29°M56'31	6.17838 AU
asc. node	-726 Jan 26 j 04:57	3° Ⅱ 57'16			-721 Nov 28 j 05:07	0° ⊼ ¹	
direct	-726 Feb 05 j 04:39	3° Ⅱ 47'29			J		
evening set	-726 Jun 12 j 06:10	22° II 07'25		conjunction	-721 Nov 29 j 08:55	0° ≯ 16′08	0°16'12
C	,			minimum elong	-721 Nov 29 j 08:56	0° ∡ 16′09	0°16'11
conjunction	-726 Jun 25 j 21:30	25° Ⅱ 08'11	0°15'33	behind sun begin	-721 Nov 29 j 07:59	0° ∡ 15'36	
minimum elong	-726 Jun 25 j 21:29	25° Ⅱ 08'11	0°15'34	behind sun end	-721 Nov 29 j 09:52	0° ∡ 16'42	
behind sun begin	-726 Jun 25 j 20:07	25° Ⅲ 07'25		morning rise	-721 Dec 12 j 00:57	3° ∡ 12'29	
behind sun end	-726 Jun 25 j 22:51	25° Ⅱ 08'56		retrograde	-720 Apr 17 j 04:51	22° ₹ 07'02	
max. Earth dist.	-726 Jun 26 j 16:36	25° Ⅱ 18'45	6.30251 AU	desc. node	-720 Apr 28 j 11:54	21° х 55'02	
morning rise	-726 Jul 09 j 10:58	28° Ⅲ 07'51	0.50201110	opposition	-720 Jun 17 j 01:01	17° ₹ 11'55	0°-8'00
morning rise	-726 Jul 18 j 00:37	0ಂತ		min. Earth dist.	-720 Jun 17 j 17:53	17° ∡ 106'29	4.11397 AU
retrograde	-726 Nov 09 j 01:48	15°942'47		direct	-720 Aug 16 j 08:38	12° х 17'19	1.11357 110
opposition	-725 Jan 07 j 22:02	10°944'25	0°50'03	direct	-720 Dec 13 j 21:28	ිපි 0°පි	
min. Earth dist.	-725 Jan 07 j 18:00	10°945'45	4.35511 AU	evening set	-720 Dec 19 j 04:29	0 0 1° 3 14'44	
direct	-725 Mar 10 j 02:19	5°941'13	4.55511710	evening set	720 Dec 17 J 04.27	1 01444	
evening set	-725 Jul 15 j 10:11	23°935'26		conjunction	-719 Jan 01 j 00:20	4° る 17'35	0° 26' 36
evening set	-725 Jul 15 j 10.11	23 33 20		•	-719 Jan 01 j 00:18	4°る17'34	
conjunction	-725 Jul 28 j 17:50	26°929'11	0°50'46	max. Earth dist.	-720 Dec 31 j 13:37		6.05746 AU
minimum elong	-725 Jul 28 j 17:47	26°\$29'09	0°50'47	morning rise	-719 Jan 13 j 22:18	4 31112 7° 3 21'42	0.03740 AU
max. Earth dist.	-725 Jul 28 j 08:36	26°\$24'09	6.39582 AU	-	-719 May 24 j 09:16	7 32142 27° 3 16'59	
		20 \$24 09 29°\$21'26	0.39382 AU	retrograde opposition	-719 Jul 23 j 21:04	27 31 639 22° 3 18'05	-1°-9'-18
morning rise	-725 Aug 10 j 22:40			min. Earth dist.	·	22° る 18'03	4.01272 AU
	-725 Aug 13 j 22:07	0°Ω 15°Ω			-719 Jul 23 j 16:35	22 3 1934 17° 3 24'46	4.012/2 AU
. 1	-725 Nov 10 j 03:42	15° Ω		direct	-719 Sep 20 j 19:20		
retrograde	-725 Dec 09 j 14:28	16° Ω 20'54			-719 Dec 25 j 06:35	0° ≈	
	-724 Jan 07 j 22:38	15°R Ω	1921120	evening set	-718 Jan 23 j 15:00	6° ≈ 48'35	
opposition	-724 Feb 07 j 17:54	11° Ω 26′09	1°31'20	:	710 F-k 05 : 17.20	0957120	10 11 5
min. Earth dist.	-724 Feb 08 j 08:13	11° Ω 21'29	4.42172 AU	conjunction	-718 Feb 05 j 17:26	9°≈57'29	-1°-1'-5
direct	-724 Apr 10 j 00:18	6° Ω 22'58		minimum elong	-718 Feb 05 j 17:23	9°≈57'27	1°01'08
	-724 Jul 01 j 08:34	15° Ω		max. Earth dist.	-718 Feb 06 j 14:32	10°≈10'11	5.98486 AU
evening set	-724 Aug 15 j 02:50	24° Ω 04'06	C 12001 1 XX	morning rise	-718 Feb 18 j 22:44	13°≈08'02	
max. Earth dist.	-724 Aug 26 j 18:23	26°8 (35'45	6.42984 AU		-718 Feb 26 j 19:19	15° ≈	
					-718 May 13 j 06:39	0° ∺	
conjunction	-724 Aug 28 j 02:13	26° £ 53′04	1°10'59	retrograde	-718 Jul 01 j 06:35	3°) 38′11	
minimum elong	-724 Aug 28 j 02:11	26° £ 53′04	1°10'58		-718 Aug 19 j 15:41	30°R≈	
morning rise	-724 Sep 09 j 22:31	29° Ω 40'34		min. Earth dist.	-718 Aug 29 j 08:14	28° ≈ 43′02	3.97796 AU
	-724 Sep 11 j 10:28	0° m		opposition	-718 Aug 30 j 06:50	28° ≈ 35′26	-1°-45'-54
retrograde	-723 Jan 08 j 01:58	16° Mp 31'44		direct	-718 Oct 27 j 08:24	23°≈41'22	
opposition	-723 Mar 09 j 15:17	11° m 39'18	1°47'16	_	-718 Dec 30 j 07:27	0° ∀	
min. Earth dist.	-723 Mar 10 j 18:42	11° mp 30'30	4.42265 AU	evening set	-717 Mar 01 j 13:33	13° ∺ 13′18	
direct	-723 May 11 j 08:01	6°Mp37′16					
evening set	-723 Sep 14 j 23:56	24° m 19'51		conjunction	-717 Mar 14 j 23:38	16° ¥ 25′24	-1°-12'-35
max. Earth dist.	-723 Sep 25 j 20:36	26° Mp 42′59	6.39665 AU	minimum elong	-717 Mar 14 j 23:38	16° ¥ 25′24	1°12'36
				max. Earth dist.	-717 Mar 16 j 20:37	16° ¥ 52'15	5.98990 AU
conjunction	-723 Sep 27 j 17:09	27° m 07'33	1°11'39	morning rise	-717 Mar 28 j 12:56	19° ∺ 39′03	
minimum elong	-723 Sep 27 j 17:10	27° m 07'34	1°11'39		-717 May 13 j 23:03	0° Υ	

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -717 in astronomical counting style is the year 718 BCE in historical counting style. 9°Υ58'26 retrograde -717 Aug 07 i 05:14 direct -711 May 15 j 17:56 10° m 58'20 28° m 43'05 -717 Oct 05 j 21:32 4°Υ′53'22 -1°-41'-1 -711 Sep 19 j 07:19 opposition evening set min. Earth dist. -717 Oct 04 j 12:33 5°**Y**04'36 4.02334 AU -711 Sep 25 j 03:12 0∘**⊽** -717 Nov 27 j 06:30 max. Earth dist. -711 Sep 30 j 01:42 1°**♀**05'27 30°**₹** 6.38502 AU 29°**)** 56'42 -717 Dec 02 j 21:28 direct $0^{\circ}\Upsilon$ -717 Dec 08 j 12:42 -711 Oct 01 j 23:59 1°**≙**31'02 1°10'03 conjunction 19°**Y**14'00 1°**≏**31′02 -716 Apr 06 j 20:11 -711 Oct 02 j 00:00 1°10'03 evening set minimum elong -711 Oct 14 j 14:23 morning rise 4°**£**18′00 22°**Y**25′22 -710 Feb 13 j 02:43 conjunction -716 Apr 20 j 12:48 0°-56'-13 retrograde 21°**₽**33'23 -716 Apr 20 j 12:51 minimum elong 22°**Y**25'23 0°56'14 opposition -710 Apr 14 j 23:53 16°**£**41'41 1°29'45 22°**Y**55'09 -716 Apr 22 j 15:53 max. Earth dist. 6.07066 AU min. Earth dist. -710 Apr 16 j 09:41 16°**₽**30'56 4.34290 AU -716 May 04 j 07:25 25°Y37'29 -710 Jun 16 j 09:44 morning rise direct 11°**₽**42'11 -716 May 23 j 13:42 0° 8 -710 Oct 20 j 07:15 evening set 29°**£**43'52 -716 Sep 02 j 11:05 15°8 -710 Oct 21 j 11:58 0°M retrograde -716 Sep 10 j 05:53 15°**8**06'05 max. Earth dist. -710 Oct 31 j 01:14 2°M09'30 6.28804 AU -716 Sep 17 j 23:29 15°R₩ opposition -716 Nov 08 j 18:21 10°801'27 0°-58'-54 conjunction -710 Nov 01 j 21:53 2°M34'49 0°47'53 min. Earth dist. -716 Nov 07 j 12:55 10°**8**11'30 4.12991 AU minimum elong -710 Nov 01 j 21:56 2°M34'50 0°47'52 5°**M**25′27 direct -715 Jan 06 j 14:09 5°801'40 morning rise -710 Nov 14 j 11:24 -715 Apr 02 j 02:09 15°8 -710 Dec 29 j 18:17 15°M₁ evening set -715 May 13 j 04:47 23°849'15 retrograde -709 Mar 18 j 15:35 23°M26'50 opposition -709 May 18 j 14:51 18°MJ34'00 0°45'00 conjunction -715 May 26 j 23:20 26°**8**55'59 0°-20'-14 min. Earth dist. -709 May 19 j 20:19 18°M24'36 4.22620 AU minimum elong -715 May 26 j 23:22 26°**8**56'00 0°20'14 -709 Jun 18 j 21:32 15°RM -715 May 28 j 15:04 max. Earth dist. 27°**8**18'28 6.19439 AU direct -709 Jul 19 j 02:55 13°MJ37'15 -715 Jun 09 j 17:37 0°II02'22 -709 Aug 18 j 02:59 15°M morning rise -715 Jun 09 j 13:25 $\Pi^{\circ}0$ -709 Nov 12 j 02:36 0°**√** -715 Oct 13 j 01:59 18°**Ⅲ**25'58 -709 Nov 21 j 07:04 2°**х**¹06′25 retrograde evening set -715 Dec 07 j 01:17 14°**Ⅱ**01'46 asc. node -709 Dec 03 j 23:09 -715 Dec 11 j 16:51 13°**II**24'17 0°00'43 conjunction 5° ₹03'11 0°10'18 opposition min. Earth dist. -715 Dec 10 j 22:48 13°**Ⅱ**30′22 4.25807 AU -709 Dec 03 j 23:10 0°10'17 minimum elong 5°**∡**03'12 -714 Feb 09 j 17:52 -709 Dec 03 j 16:46 4°**∡**¹59'29 8°**Ⅲ**22'09 direct behind sun begin -709 Dec 04 j 05:33 5°**х¹**06'54 -714 Jun 16 j 21:52 26°**Ⅲ**38′05 behind sun end evening set -709 Dec 02 j 15:08 4°**∡**¹44'31 max. Earth dist. 6.16186 AU 8°**∡**¹00'33 -714 Jun 30 j 12:11 -709 Dec 16 j 15:59 29°**II**37'51 0°21'00 conjunction morning rise -714 Jun 30 j 12:10 -708 Mar 08 j 05:17 29°**II**37'50 0°20'59 24°**₹**01′22 minimum elong desc. node max. Earth dist. -714 Jul 01 j 01:40 29°**Ⅲ**45'17 6.31731 AU -708 Apr 22 j 06:38 27°**х** 03′21 retrograde -714 Jul 02 j 04:20 0ಂತಾ opposition -708 Jun 22 j 02:32 22°\$\square\$07'44 0°-17'-7 -708 Jun 22 j 15:53 morning rise -714 Jul 14 j 00:44 2°536'29 min. Earth dist. 22°**✗**'03'24 4.09931 AU retrograde -714 Nov 13 j 08:23 20°905'32 direct -708 Aug 21 j 05:08 17°**∡**13'22 opposition -713 Jan 12 j 04:26 15°907'44 0°56'57 -708 Nov 26 j 21:11 0°ರ min. Earth dist. -713 Jan 12 j 04:08 15°507'50 4.36607 AU -708 Dec 24 j 00:11 6°**ප**14'16 evening set -713 Mar 14 j 13:50 10°9504'28 direct -713 Jul 19 j 20:43 27°956'48 conjunction -707 Jan 05 j 20:54 9°る17'57 0°-32'-18 evening set -713 Jul 29 j 07:46 -707 Jan 05 j 20:52 9°る17'56 0°32'18 0° Ω minimum elong -707 Jan 05 i 15:40 9°**ප**14'50 max. Earth dist. 6.04599 AU -713 Aug 02 j 03:24 0°Ω49'53 0°54'34 -707 Jan 18 j 19:36 12°る22'56 conjunction morning rise -713 Aug 02 i 03:21 0°Ω49'52 0°54'34 -707 Apr 20 j 00:04 minimum elong 0°≈ -713 Aug 01 i 15:21 0°**Ω**43'20 -707 May 29 j 15:44 2°≈24'10 max. Earth dist. 6.40208 AU retrograde -707 Jul 08 i 09:36 morning rise -713 Aug 15 i 06:57 3°Ω41'24 30°R3 opposition -707 Jul 29 i 01:22 -713 Oct 11 j 21:40 15°**Ω** 27°る24'45 -1°-16'-23 retrograde -713 Dec 13 j 18:15 20°**£**38'59 min. Earth dist. -707 Jul 28 j 18:59 27°る26'52 4.00561 AU 15°**Ω**44'39 1°35'09 -712 Feb 11 j 23:54 direct -707 Sep 25 j 20:30 22°る31'28 opposition -712 Feb 12 j 15:34 -707 Dec 05 j 11:33 min. Earth dist. 15°**Ω**39'34 4.42330 AU 0°22 -706 Jan 28 j 16:04 -712 Feb 17 j 17:59 15°RΩ evening set 11°≈56'54 -712 Apr 14 j 07:12 direct 10°**Ω**41'37 -706 Feb 10 j 19:21 -712 Jun 09 j 09:00 15°**Ω** conjunction 15°≈06'18 -1°-4'-18 -706 Feb 10 j 19:19 -712 Aug 19 j 10:32 28°**£**23′06 minimum elong 15°≈06'17 1°04'19 evening set -712 Aug 26 j 21:09 -706 Feb 10 j 08:52 15°≈ 0° m max. Earth dist. -712 Aug 30 j 22:40 0° M 53'08 6.42659 AU max. Earth dist. -706 Feb 11 j 19:12 15°≈20'40 5.98253 AU -706 Feb 24 j 01:53 morning rise 18°**≈**17'27 -706 Apr 17 j 21:54 0°**)**€ conjunction -712 Sep 01 j 08:52 1° mg 11'47 1°12'15 minimum elong -712 Sep 01 j 08:51 1° Mp 11'46 1°12'15 retrograde -706 Jul 06 j 09:57 8°**)**48'12 morning rise -712 Sep 14 j 04:16 3° m 59'03 min. Earth dist. -706 Sep 03 j 08:19 3°**₭**53'33 3.98098 AU retrograde -711 Jan 12 j 10:33 20° m 52'11 opposition -706 Sep 04 j 09:37 3°**)** 45′02 -1°-47'-47 -711 Mar 14 j 00:06 16° m 00'02 1°47'09 -706 Oct 06 j 06:31 30°R≈ opposition min. Earth dist. -711 Mar 15 j 05:32 15° m 50'36 4.41494 AU -706 Nov 01 j 09:08 28°≈50'42 direct

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 18 Attention, astronomical year style is used: The year -706 in astronomical counting style is the year 707 BCE in historical counting style.

Attention, astronom	nical year style is used: T	he year -706 ii	n astronomical cour	nting style is the year 7	707 BCE in historical co	unting style.	
	-706 Nov 27 j 12:14	0°)		conjunction	-700 Sep 05 j 17:06	5° Mp 34'34	1°13'11
evening set	-705 Mar 06 j 16:51	18° ∺ 21′28		minimum elong	-700 Sep 05 j 17:06	5° m 34'33	1°13'11
				morning rise	-700 Sep 18 j 11:30	8° Mp 21'34	
conjunction	-705 Mar 20 j 03:57	21° 米 33'39		retrograde	-699 Jan 16 j 18:39	25° Mp 16'14	
minimum elong	-705 Mar 20 j 03:58	21° 米 33'39		opposition	-699 Mar 18 j 10:30	20° m 24'13	1°46'28
max. Earth dist.	-705 Mar 22 j 02:13		5.99782 AU	min. Earth dist.	-699 Mar 19 j 15:39	20° m 14'54	4.40920 AU
morning rise	-705 Apr 02 j 18:09	24°) 47'19		direct	-699 May 20 j 03:20	15° Tp 22'49	
	-705 Apr 25 j 07:07	0°Υ 150 0 01133			-699 Sep 09 j 03:13	0∘ ⊽	
retrograde	-705 Aug 12 j 04:08	15° Y 01'32	4.02512.411	evening set	-699 Sep 23 j 15:31	3° ₾ 08'42	6 27660 ATT
min. Earth dist.	-705 Oct 09 j 11:08	10° Υ 07'21 9° Υ 56'20	4.03512 AU	max. Earth dist.	-699 Oct 04 j 09:56	5° £ 31′25	6.37660 AU
opposition direct	-705 Oct 10 j 19:27	4° Υ 59'12	-1°-37'-3	agniumation	600 Oct 06 i 07:25	5° £ 56'44	1°08'05
evening set	-705 Dec 07 j 21:52 -704 Apr 11 j 21:56	4 γ 39 12 24° Υ 13'05		conjunction minimum elong	-699 Oct 06 j 07:35 -699 Oct 06 j 07:37	5° £ 56'45	1°08'04
evening set	-/04 Apr 11 J 21.30	24 13 03		morning rise	-699 Oct 18 j 21:33	8° £ 43'53	1 00 04
conjunction	-704 Apr 25 j 15:17	27° Y ′24'05	0°-52'-6	retrograde	-698 Feb 17 j 16:53	26° £ 03′26	
minimum elong	-704 Apr 25 j 15:17	27° Υ 24'06	0°52'07	opposition	-698 Apr 19 j 14:35	20° ⊆ 03'20	1°24'59
max. Earth dist.	-704 Apr 27 j 18:43	27° Υ '53'57	6.08538 AU	min. Earth dist.	-698 Apr 21 j 00:42	21° ⊆ 00'50	4.33221 AU
max. Earth dist.	-704 May 06 j 20:18	0°8	0.00050710	direct	-698 Jun 20 j 23:35	16° ♀ 12'34	1.55221710
morning rise	-704 May 09 j 10:08	0° 8 35'38		uncer	-698 Oct 05 j 08:35	0°M	
morning 1130	-704 Jul 19 j 09:27	15° 8		evening set	-698 Oct 24 j 16:31	4° ™ 16'04	
retrograde	-704 Sep 14 j 21:20	19° 8 55'49		max. Earth dist.	-698 Nov 04 j 10:57		6.27598 AU
min. Earth dist.	-704 Nov 12 j 05:19	15° 8 01'13	4.14595 AU		J		
	-704 Nov 12 j 08:53	15° R 8		conjunction	-698 Nov 06 j 07:02	7° M ₊07'28	0°43'24
opposition	-704 Nov 13 j 09:49	14° 8 51'31	0°-51'-11	minimum elong	-698 Nov 06 j 07:04	7° M 07'29	0°43'24
direct	-703 Jan 11 j 08:30	9° 8 51'21		morning rise	-698 Nov 18 j 20:48	9° ™ 58'42	
	-703 Mar 11 j 06:42	15° 8			-698 Dec 11 j 13:58	15° ™	
evening set	-703 May 18 j 02:26	28° 8 34'58		retrograde	-697 Mar 23 j 09:27	28°MJ06'11	
	-703 May 24 j 09:45	Π °0		opposition	-697 May 23 j 10:00	23°M13'00	0°37'06
				min. Earth dist.	-697 May 24 j 12:50	23°M04'25	4.21351 AU
conjunction	-703 May 31 j 20:37	1° Ⅱ 40′53	0°-14'-30	direct	-697 Jul 23 j 17:45	18°M16'35	
minimum elong	-703 May 31 j 20:39	1° Ⅱ 40′54	0°14'30		-697 Oct 26 j 08:53	0° ∡ ¹	
behind sun begin	-703 May 31 j 17:18	1° Ⅱ 39'01		evening set	-697 Nov 25 j 19:35	6° ₰ ¹48'09	
behind sun end	-703 May 31 j 23:59	1° Ⅱ 42'46		max. Earth dist.	-697 Dec 07 j 08:19	9° ∡ ′29′21	6.14972 AU
max. Earth dist.	-703 Jun 02 j 07:39	2° Ⅱ 00′38	6.21043 AU				
morning rise	-703 Jun 14 j 14:36	4° Ⅱ 46'23		conjunction	-697 Dec 08 j 12:08		0°04'29
retrograde	-703 Oct 17 j 12:10	23° I I02'12		minimum elong	-697 Dec 08 j 12:08	9° ∡ ¹45'36	0°04'28
asc. node	-703 Oct 17 j 08:23	23° Ⅱ 02'12		behind sun begin	-697 Dec 08 j 04:17	9° ∡ ¹41'02	
opposition	-703 Dec 16 j 03:20	18° Ⅱ 00'59		behind sun end	-697 Dec 08 j 19:59	9° ∡ 750′10	
min. Earth dist.	-703 Dec 15 j 12:07		4.27264 AU	morning rise	-697 Dec 21 j 05:21	12° х 43'41	
direct	-702 Feb 14 j 09:36	12° I 58'33		desc. node	-696 Jan 18 j 09:43	19° ₹ 05'00	
. ,	-702 Jun 16 j 02:58	0°©		. 1	-696 Mar 23 j 02:23	0°る	
evening set	-702 Jun 21 j 14:03	1° © 11'25		retrograde	-696 Apr 27 j 07:20	1°る53'07 30°Ŗ ズ	
conjunction	-702 Jul 05 j 03:42	4°9510'21	0°26'22	opposition	-696 Jun 01 j 14:30 -696 Jun 27 j 01:36	30 Kx. 26° ₹ 57'02	0°-25'-52
minimum elong	-702 Jul 05 j 03:42	4°910'20	0°26'23	min. Earth dist.	-696 Jun 27 j 13:31	26° x 57'02 26° x 53'10	4.08861 AU
max. Earth dist.	-702 Jul 05 j 14:53	4°916'30	6.32943 AU	direct	-696 Aug 26 j 01:00	20 × 33 10 22°× 02'54	4.08801 AU
morning rise	-702 Jul 18 j 15:00	7°908'00	0.32943 AU	uncet	-696 Nov 08 j 04:23	0°る	
retrograde	-702 Nov 17 j 14:31	24°532'01		evening set	-696 Dec 28 j 17:23	11° る 06'04	
opposition	-701 Jan 16 j 12:17	19°534'46	1°03'38	evening see	0,0 BCC 20 j 17.25		
min. Earth dist.	-701 Jan 16 j 13:31	19° © 34'21	4.37503 AU	conjunction	-695 Jan 10 j 14:41	14° る 10'24	0°-37'-35
direct	-701 Mar 19 j 00:29	14°931'28		minimum elong	-695 Jan 10 j 14:39	14° る 10'22	0°37'36
	-701 Jul 13 j 06:46	$0^{\circ}\Omega$		max. Earth dist.	-695 Jan 10 j 11:50	14° る 08'42	6.03756 AU
evening set	-701 Jul 24 j 08:40	2° Ω 22'18		morning rise	-695 Jan 23 j 14:24	17° る 16'09	
-	-			-	-695 Mar 23 j 09:37	0°≈	
conjunction	-701 Aug 06 j 14:01	5° Ω 14'39	0°58'08	retrograde	-695 Jun 03 j 16:09	7° ≈ 22'09	
minimum elong	-701 Aug 06 j 13:58	5° Ω 14'38	0°58'08	opposition	-695 Aug 03 j 01:56	2° ≈ 22'13	-1°-22'-41
max. Earth dist.	-701 Aug 05 j 21:33	5° Ω 05'42	6.40717 AU	min. Earth dist.	-695 Aug 02 j 16:18	2° ≈ 25'25	4.00055 AU
morning rise	-701 Aug 19 j 16:30	8° Ω 05'30			-695 Aug 21 j 19:18	30°R₹	
				direct	-695 Sep 30 j 16:53	27° る 28'55	
	-701 Sep 21 j 21:47	15° Ω		direct	0,0 5 c p 50 j 10.05	_,	
retrograde	-701 Dec 18 j 02:13	25° Ω 01′29		direct	-695 Nov 09 j 00:52	0° ≈	
opposition	-701 Dec 18 j 02:13 -700 Feb 16 j 07:59	25° Ω 01'29 20° Ω 07'33	1°38'33	uncer	-695 Nov 09 j 00:52 -694 Jan 25 j 11:16	0° ≈ 15° ≈	
opposition min. Earth dist.	-701 Dec 18 j 02:13 -700 Feb 16 j 07:59 -700 Feb 17 j 02:22	25° Ω01'29 20° Ω07'33 20° Ω01'36	1°38'33 4.42461 AU	evening set	-695 Nov 09 j 00:52	0° ≈	
opposition	-701 Dec 18 j 02:13 -700 Feb 16 j 07:59 -700 Feb 17 j 02:22 -700 Apr 18 j 18:36	25° Ω01'29 20° Ω07'33 20° Ω01'36 15° Ω04'39		evening set	-695 Nov 09 j 00:52 -694 Jan 25 j 11:16 -694 Feb 02 j 13:42	0°≈ 15°≈ 16°≈55'33	
opposition min. Earth dist. direct	-701 Dec 18 j 02:13 -700 Feb 16 j 07:59 -700 Feb 17 j 02:22 -700 Apr 18 j 18:36 -700 Aug 10 j 21:01	25° N01'29 20° N07'33 20° N01'36 15° N04'39 0° M		evening set	-695 Nov 09 j 00:52 -694 Jan 25 j 11:16 -694 Feb 02 j 13:42 -694 Feb 15 j 17:58	0°≈ 15°≈ 16°≈55'33 20°≈05'27	-1°-6'-55
opposition min. Earth dist. direct evening set	-701 Dec 18 j 02:13 -700 Feb 16 j 07:59 -700 Feb 17 j 02:22 -700 Apr 18 j 18:36 -700 Aug 10 j 21:01 -700 Aug 23 j 19:37	25° \(\O1'29\) 20° \(\O1'33\) 20° \(\O1'36\) 15° \(\O4'39\) 0° \(\O4'09\)	4.42461 AU	evening set conjunction minimum elong	-695 Nov 09 j 00:52 -694 Jan 25 j 11:16 -694 Feb 02 j 13:42 -694 Feb 15 j 17:58 -694 Feb 15 j 17:56	0°≈ 15°≈ 16°≈55'33 20°≈05'27 20°≈05'25	1°06'56
opposition min. Earth dist. direct	-701 Dec 18 j 02:13 -700 Feb 16 j 07:59 -700 Feb 17 j 02:22 -700 Apr 18 j 18:36 -700 Aug 10 j 21:01	25° \(\O1'29\) 20° \(\O1'33\) 20° \(\O1'36\) 15° \(\O4'39\) 0° \(\O4'09\)		evening set	-695 Nov 09 j 00:52 -694 Jan 25 j 11:16 -694 Feb 02 j 13:42 -694 Feb 15 j 17:58	0°≈ 15°≈ 16°≈55'33 20°≈05'27	

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 19 Attention, astronomical year style is used: The year -694 in astronomical counting style is the year 695 BCE in historical counting style.

Attention, astronom	ical year style is used: T	he year -694 is	n astronomical cou	inting style is the year 6	695 BCE in historical co	unting style.	
	-694 Mar 30 j 01:18	0°) €			-688 Jul 24 j 20:14	0° ™	
retrograde	-694 Jul 11 j 10:40	13°) 48′19		evening set	-688 Aug 28 j 03:12	7° m 07'04	
min. Earth dist.	-694 Sep 08 j 06:47		3.98350 AU	max. Earth dist.	-688 Sep 08 j 09:28	9° m 34'17	6.42228 AU
opposition	-694 Sep 09 j 08:35	8°) (44'47	-1°-48'-50				
direct	-694 Nov 06 j 08:14	3° ¥ 50′08		conjunction	-688 Sep 09 j 23:35	9° m 55'07	1°13'41
evening set	-693 Mar 11 j 16:58	23° ∺ 20′20		minimum elong	-688 Sep 09 j 23:34	9° m 55'07	1°13'41
				morning rise	-688 Sep 22 j 17:14	12° m 41'51	
conjunction	-693 Mar 25 j 05:11	26°) (32'43		retrograde	-687 Jan 21 j 03:55	29° m 37'59	
minimum elong	-693 Mar 25 j 05:13	26°) 32'44		opposition	-687 Mar 22 j 20:04	24° Mp 46'05	1°45'11
max. Earth dist.	-693 Mar 27 j 05:35	27°) €01'28	6.00406 AU	min. Earth dist.	-687 Mar 24 j 03:12	24° Tp 36'09	4.40326 AU
morning rise	-693 Apr 07 j 20:13	29°) (46'29		direct	-687 May 24 j 13:56	19° m 44'53	
	-693 Apr 08 j 19:11	0°Υ 10° Ω 5 (11.4			-687 Aug 23 j 01:49	0∘ ʊ	
retrograde	-693 Aug 17 j 00:11	19° Y 56'14		evening set	-687 Sep 27 j 22:03	7° Ω 31'54	
min. Earth dist.	-693 Oct 14 j 05:45	15° Y ′02'07		max. Earth dist.	-687 Oct 08 j 15:41	9° ჲ 54'32	6.36675 AU
opposition	-693 Oct 15 j 14:04	14° Y 51'05	-1°-32'-33		6070 . 10:10.16	10000000	1005144
direct	-693 Dec 12 j 17:01	9°Υ53'38		conjunction	-687 Oct 10 j 13:46		1°05'44
evening set	-692 Apr 16 j 21:28	29° Y 05'23		minimum elong	-687 Oct 10 j 13:48	10° Ω 20'10	1°05'44
	-692 Apr 20 j 20:09	0°B		morning rise	-687 Oct 23 j 03:23	13° Ω 07'34	
	(02 4 20 : 15 12	2012105	00 471 45		-686 Feb 03 j 16:45	0°M	
conjunction	-692 Apr 30 j 15:13	2°816'05		retrograde	-686 Feb 22 j 04:37	0°M31'56	
minimum elong	-692 Apr 30 j 15:16	2° 8 16'07		*.*	-686 Mar 12 j 18:40	30° ₹ Ω	1010112
max. Earth dist.	-692 May 02 j 15:53	2° 8 44'16	6.09713 AU	opposition	-686 Apr 24 j 04:04	25° Ω 40'02	
morning rise	-692 May 14 j 10:33	5° 8 27'18		min. Earth dist.	-686 Apr 25 j 13:06	25° Ω 29'32	4.31887 AU
	-692 Jun 27 j 10:40	15° 8		direct	-686 Jun 25 j 09:33	20° ≏ 41'15	
retrograde	-692 Sep 19 j 10:59	24° 8 40'33			-686 Sep 17 j 18:37	0°M,	
opposition	-692 Nov 17 j 23:35	19° 8 36'34		evening set	-686 Oct 29 j 01:10	8°M47'44	6.0.6000 AXX
min. Earth dist.	-692 Nov 16 j 20:30	19° 8 45'47	4.15882 AU	max. Earth dist.	-686 Nov 08 j 21:26	11° M .15'38	6.26023 AU
	-692 Dec 31 j 15:21	15°₹ 8			60637 10:15.14	1107 20116	0020120
direct	-691 Jan 16 j 01:50	14° 8 36'03		conjunction	-686 Nov 10 j 15:44	11°M39'46	0°38'39
	-691 Jan 31 j 15:29	15° 8		minimum elong	-686 Nov 10 j 15:46	11°M39'48	0°38'39
	-691 May 08 j 02:02	0°II		morning rise	-686 Nov 23 j 05:43	14°M31'46	
evening set	-691 May 22 j 22:22	3° Ⅱ 16′56			-686 Nov 25 j 07:35	15° ™	
					-685 Feb 13 j 00:15	0° ∡ ¹	
conjunction	-691 Jun 05 j 16:29	6° Ⅱ 22'13		retrograde	-685 Mar 28 j 06:37	2° √ 146'57	
minimum elong	-691 Jun 05 j 16:30	6° Ⅱ 22'14	0°08'49	*,*	-685 May 11 j 03:31	30°₹M.	0020152
behind sun begin	-691 Jun 05 j 09:22	6° Ⅱ 18'14		opposition	-685 May 28 j 05:30	27°M53'27	0°28'53
behind sun end	-691 Jun 05 j 23:38	6° ∏ 26'13	(22272 ATT	min. Earth dist.	-685 May 29 j 07:57	27°M44'59	4.19609 AU
max. Earth dist.	-691 Jun 07 j 02:05		6.22372 AU	direct	-685 Jul 28 j 10:04	22°M57'20	
morning rise	-691 Jun 19 j 09:46	9° Ⅱ 26'54		1 1	-685 Oct 07 j 00:30	0° 🗷	
asc. node	-691 Aug 28 j 07:40	23° ∏ 09'22		desc. node	-685 Nov 28 j 21:19	11° 🗷 12'24	
retrograde	-691 Oct 21 j 22:10	27° II 36'05	0017122	evening set	-685 Nov 30 j 09:03	11° х 33'10	C 12220 ATT
opposition	-691 Dec 20 j 13:07	22° II 35'26		max. Earth dist.	-685 Dec 12 j 00:05	14° ∤ 16'19	6.13220 AU
min. Earth dist.	-691 Dec 19 j 23:36	22° ∏ 39'58	4.28522 AU		(05 D 12:02:06	14° ∡ ³31'35	00 11 24
direct	-690 Feb 18 j 23:17 -690 May 30 j 07:39	17° Ⅱ 32'53 0° ⑤		conjunction minimum elong	-685 Dec 13 j 02:06 -685 Dec 13 j 02:04	14° x '31'33	0°-1'-34 0°01'35
		5° © 43'14		behind sun begin			0 01 33
evening set	-690 Jun 26 j 05:38	3 2943 14		behind sun begin	-685 Dec 12 j 18:02	14° х 26'53 14° х 36'15	
conjunction	-690 Jul 09 j 18:11	8° © 41'18	0°31'30	morning rise	-685 Dec 13 j 10:06 -685 Dec 25 j 20:09	17° × 30'15	
minimum elong	-690 Jul 09 j 18:09	8°9341'17	0°31'31	morning rise		17 メ ・3043	
max. Earth dist.	-690 Jul 10 j 01:01	8°9945'03	6.34030 AU	retrograde	-684 Feb 22 j 18:10 -684 May 02 j 08:10	6°る48'57	
	-	11° © 38'04	0.34030 AU	•		1°る52'21	0°-34'-40
morning rise retrograde	-690 Jul 23 j 04:33 -690 Nov 21 j 21:28	28°957'31		opposition min. Earth dist.	-684 Jul 02 j 02:38 -684 Jul 02 j 11:06	1°る32'21 1°る49'35	4.07252 AU
opposition	-689 Jan 20 j 19:48	24°900'43	1°09'51	iiiii. Eartii tist.	-684 Jul 16 j 21:30	1 04933 30°R. ✓	4.07232 AU
**				J:		30 Kx. 26° ₹ 58'25	
min. Earth dist.	-689 Jan 20 j 23:26	23° © 59'31 18° © 57'22	4.38361 AU	direct	-684 Aug 30 j 20:00	20 x・3823	
direct	-689 Mar 23 j 11:58			ovening set	-684 Oct 13 j 18:31	0 8 16° 8 05'59	
evening set	-689 Jun 26 j 05:32 -689 Jul 28 j 19:33	0° Ω 6° Ω 46'31		evening set	-683 Jan 02 j 13:45	10 003 39	
evening set	-007 Jul 20 J 19.33	0 664031		conjunction	-683 Jan 15 j 11:56	19° る 11'16	0°-42' 45
conjunction	-689 Aug 10 j 23:54	9° Ω 38'11	1°01'19	minimum elong	-683 Jan 15 j 11:58	19° ろ 11'14	0°-42'-43 0°42'47
minimum elong	-689 Aug 10 j 23:51	9° Ω 38'10	1°01'19 1°01'19	max. Earth dist.	-683 Jan 15 j 13:16	19 311 14 19° 3 12'04	6.02434 AU
max. Earth dist.	-689 Aug 10 j 25:51	9° Ω 28'35		max. Earth dist.	-683 Jan 28 j 12:35	19°612'04 22°618'02	0.02434 AU
		$9^{\circ}0.2835$ $12^{\circ}\Omega 28'18$	0.414/4 AU	morning rise		0°≈	
morning rise	-689 Aug 24 j 01:00 -689 Sep 04 j 20:22	$12^{\circ}\Omega$ $15^{\circ}\Omega$		retrograde	-683 Mar 03 j 03:33 -683 Jun 08 j 22:59	0°≈ 12°≈30'33	
retrograda	-689 Dec 22 j 07:14	15° 8ℓ 29° Ω 22'28		opposition	-683 Aug 08 j 06:15	7°≈30'33	-1°-28'-37
retrograde opposition	-688 Feb 20 j 15:18	29 % 22 28 $24^{\circ} \Omega 28'52$	10/11/10	min. Earth dist.	-683 Aug 07 j 18:44	7°≈33'53	3.99163 AU
min. Earth dist.	-688 Feb 21 j 10:30	$24^{\circ}\Omega 22'40$	4.42676 AU	direct	-683 Oct 05 j 19:00	7 ≈33 33 2°≈36'38	3.77103 AU
direct	-688 Apr 23 j 03:01	19° Ω 26'07	7.720/0 AU	uncci	-682 Jan 08 j 00:51	2°≈36'38 15°≈	
direct	000 Apr 23 J 03.01	17 06200/			002 Jan 00 J 00.31	15 🗢	

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 20 Attention, astronomical year style is used: The year -682 in astronomical counting style is the year 683 BCE in historical counting style.

Attention, astronom	ical year style is used: T	he year -682 ii	n astronomical cou	unting style is the year	683 BCE in historical co	unting style.	
evening set	-682 Feb 07 j 16:20	22° ≈ 05'55		conjunction	-677 Aug 15 j 06:19	13° Ω 53′29	1°04'04
				minimum elong	-677 Aug 15 j 06:17	13° Q 53′28	1°04'05
conjunction	-682 Feb 20 j 21:48	25° ≈ 16'30	-1°-9'-8		-677 Aug 20 j 08:41	15° Ω	
minimum elong	-682 Feb 20 j 21:47	25° ≈ 16′29	1°09'10	morning rise	-677 Aug 28 j 06:20	16° Ω 42'45	
max. Earth dist.	-682 Feb 22 j 04:59	25° ≈ 35'15	5.97736 AU		-677 Nov 07 j 07:12	0° m)	
morning rise	-682 Mar 06 j 06:25	28° ≈ 28'48		retrograde	-677 Dec 26 j 10:41	3° Mp 34'22	
	-682 Mar 12 j 16:01	0° ∀			-676 Feb 14 j 11:37	30° R Ω	
retrograde	-682 Jul 16 j 16:06	19° ∺ 00'40		opposition	-676 Feb 24 j 19:40	28° Ω 41′04	
min. Earth dist.	-682 Sep 13 j 08:18		3.98567 AU	min. Earth dist.	-676 Feb 25 j 17:41		4.43077 AU
opposition	-682 Sep 14 j 11:59	13° ¥ 56'48	-1°-49'-6	direct	-676 Apr 27 j 09:46	23° Ω 38′22	
direct	-682 Nov 11 j 09:38	9° ∺ 01'53			-676 Jul 05 j 20:35	0° m)	
evening set	-681 Mar 16 j 22:29	28° ¥ 31'27		evening set	-676 Sep 01 j 07:03	11° m) 18'25	
	-681 Mar 23 j 04:18	0° Ƴ		max. Earth dist.	-676 Sep 12 j 11:17	13° m 44'37	6.42046 AU
conjunction	-681 Mar 30 j 11:36	1° Y 43'56	10 8! 57	conjunction	-676 Sep 14 j 02:43	14° Mp 06'12	1013145
minimum elong	-681 Mar 30 j 11:38	1° Υ 43'57		minimum elong	-676 Sep 14 j 02:43	14° my 06'12	
max. Earth dist.	-681 Apr 01 j 12:19	2° Υ 12'48	6.01189 AU	morning rise	-676 Sep 26 j 19:26	16° Mp 52'40	1 13 43
morning rise	-681 Apr 13 j 03:42	4° Υ '57'44	0.01107710	morning rise	-676 Dec 05 j 02:06	0° ⊽	
retrograde	-681 Aug 21 j 22:30	25° Υ '01'44		retrograde	-675 Jan 25 j 08:11	3° ₽ 50'39	
min. Earth dist.	-681 Oct 19 j 03:50	20° Υ 07'48	4.05732 AU	retrograde	-675 Mar 19 j 01:02	30°R, My	
opposition	-681 Oct 20 j 12:45	19° Υ 56'33	-1°-27'-10	opposition	-675 Mar 27 j 02:14	28° m ₂ 58'52	1°43'23
direct	-681 Dec 17 j 18:04	14° Υ 58'39	1 27 10	min. Earth dist.	-675 Mar 28 j 10:12	-	4.39568 AU
direct	-680 Apr 03 j 20:43	0°8		direct	-675 May 28 j 18:39	23° m 57'56	4.37300 AC
evening set	-680 Apr 22 j 00:54	4° 8 06'39		uncer	-675 Aug 03 j 20:21	0∘ ರ	
evening set	000 Apr 22 J 00.54	+ O 0037		evening set	-675 Oct 02 j 01:35	0 <u>−</u> 11° <u>≏</u> 46'57	
conjunction	-680 May 05 j 19:12	7° 8 16'48	0°-42'-54	max. Earth dist.	-675 Oct 12 j 16:58		6.35380 AU
minimum elong	-680 May 05 j 19:15	7° 8 16'49		max. Earth dist.	073 Oct 12 j 10.30	14 =0030	0.55500 710
max. Earth dist.	-680 May 07 j 20:20	7° 8 45'08	6.11422 AU	conjunction	-675 Oct 14 j 16:50	14° ≏ 35'32	1°03'06
morning rise	-680 May 19 j 14:27	10° 8 27'13	0.11.122.110	minimum elong	-675 Oct 14 j 16:52		1°03'06
morning not	-680 Jun 08 j 20:52	15° 8		morning rise	-675 Oct 27 j 06:24	17° £ 23'27	1 05 00
retrograde	-680 Sep 24 j 03:43	29° 8 30'58		morning rise	-675 Dec 30 j 05:19	0°M	
opposition	-680 Nov 22 j 15:40	24° 8 27'21	0°-35'-1	retrograde	-674 Feb 26 j 17:28	4° M ₅54'09	
min. Earth dist.	-680 Nov 21 j 13:57		4.17844 AU	opposition	-674 Apr 28 j 15:42	0°ML02'10	1°14'10
direct	-679 Jan 20 j 22:48	19° 8 26'31		rr	-674 Apr 28 j 22:31	30° ₽ Ω	
	-679 Apr 20 j 04:38	0°II		min. Earth dist.	-674 Apr 30 j 01:58		4.30106 AU
evening set	-679 May 27 j 20:06	8° Ⅱ 01'55		direct	-674 Jun 29 j 18:58	25° ₽ 03'40	
C	, ,				-674 Aug 27 j 23:46	0° M .	
conjunction	-679 Jun 10 j 13:35	11° II 06'05	0°-3'00	evening set	-674 Nov 02 j 08:00	13°M14'56	
minimum elong		11° Ⅱ 06'05	0°03'00	C	-674 Nov 10 j 00:14	15° M ₊	
behind sun begin	-679 Jun 10 j 05:16	11° Ⅱ 01'27		max. Earth dist.	-674 Nov 13 j 05:12	15° M 44'04	6.23904 AU
behind sun end	-679 Jun 10 j 21:54	11° Ⅱ 10'43			·		
max. Earth dist.	-679 Jun 11 j 19:54	11° Ⅲ 23'03	6.24435 AU	conjunction	-674 Nov 14 j 22:53	16° M 07'57	0°33'46
morning rise	-679 Jun 24 j 06:12	14° Ⅱ 09'32		minimum elong	-674 Nov 14 j 22:55	16° M 07'58	0°33'45
asc. node	-679 Jul 08 j 17:30	17° Ⅲ 20′00		morning rise	-674 Nov 27 j 13:18	19° M .01'01	
	-679 Sep 19 j 02:20	0 ° \mathfrak{S}			-673 Jan 18 j 18:08	0° ∡ ¹	
retrograde	-679 Oct 26 j 05:58	2° 5 09'20		retrograde	-673 Apr 02 j 01:35	7° ∡ ¹26′08	
	-679 Dec 02 j 06:03	30°RⅡ		opposition	-673 Jun 02 j 00:21	2° ∡ ³32′20	0°20'36
opposition	-679 Dec 24 j 22:50	27° I 109'09	0°25'27	min. Earth dist.	-673 Jun 03 j 00:31	2° ∡ ¹24'35	4.17305 AU
min. Earth dist.	-679 Dec 24 j 10:59	27° Ⅱ 13'08	4.30516 AU		-673 Jun 22 j 19:42	30°RM	
direct	-678 Feb 23 j 13:34	22° II 06'22		direct	-673 Aug 01 j 22:39	27°M36'36	
	-678 May 11 j 13:30	0 \circ \odot			-673 Sep 10 j 11:54	0° ∡	
evening set	-678 Jun 30 j 19:49	10° © 11'33		desc. node	-673 Oct 10 j 03:19	4° ∡ ¹26'11	
				evening set	-673 Dec 04 j 23:08	16° ∡ 19'05	
conjunction	-678 Jul 14 j 07:20	13° © 08'26	0°36'23				
minimum elong	-678 Jul 14 j 07:18	13° © 08'24	0°36'24	conjunction	-673 Dec 17 j 16:47	19° ∡ 18'44	0°-7'-29
max. Earth dist.	-678 Jul 14 j 11:27	13° © 10'41	6.35804 AU	minimum elong	-673 Dec 17 j 16:47	19° ∡ 18'44	0°07'30
morning rise	-678 Jul 27 j 16:16	16° © 03'54		behind sun begin	-673 Dec 17 j 09:27	19° ∡ 14'26	
	-678 Oct 10 j 08:53	0 $^{\circ}$ Ω		behind sun end	-673 Dec 18 j 00:06	19° ∡ °23′02	
retrograde	-678 Nov 26 j 01:36	3° Ω 16'45		max. Earth dist.	-673 Dec 16 j 17:53	19° ∡ °05'14	6.10933 AU
	-677 Jan 12 j 03:44	30°ષ્ટ્		morning rise	-673 Dec 30 j 11:45	22° ∡ 19'18	
opposition	-677 Jan 25 j 01:27	28° © 20'27	1°15'30		-672 Feb 02 j 13:51	0°ප	
min. Earth dist.	-677 Jan 25 j 07:25	28° © 18'30	4.39786 AU	retrograde	-672 May 07 j 13:24	11° る 48'31	
direct	-677 Mar 27 j 21:32	23° © 17'07		opposition	-672 Jul 07 j 05:05	6° る 51'26	0°-43'-16
	-677 Jun 07 j 03:56	0 ° Ω		min. Earth dist.	-672 Jul 07 j 11:27	6° ප් 49'21	4.05184 AU
evening set	-677 Aug 02 j 03:20	11° Ω 02'42		direct	-672 Sep 04 j 18:15	1° る 57'43	
max. Earth dist.	-677 Aug 14 j 07:47	13° Ω 41'14	6.42208 AU	evening set	-671 Jan 07 j 12:27	21° る 11'35	

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 21

,	ical year style is used: T		•	//		, ,	21
		ne year -6/1 ii 24° る 18'05		•	-666 Jul 05 j 10:43	14° © 42'32	
conjunction	-671 Jan 20 j 11:45			evening set	-000 Jul 03 J 10.43	14 2942 32	
minimum elong	-671 Jan 20 j 11:42	24° ♂ 18'04			(((X 1 10 : 01 04	1.70520120	0041110
max. Earth dist.	-671 Jan 20 j 18:09	24° る 21'56	6.00783 AU	conjunction	-666 Jul 18 j 21:04	17°538'20	0°41'10
morning rise	-671 Feb 02 j 13:35	27° る 26'07		minimum elong	-666 Jul 18 j 21:02	17° © 38'19	0°41'10
	-671 Feb 13 j 09:54	0° ≈		max. Earth dist.	-666 Jul 18 j 20:51	17° © 38'13	6.37218 AU
	-671 May 02 j 19:20	15° ≈		morning rise	-666 Aug 01 j 04:47	20° © 32'44	
retrograde	-671 Jun 14 j 08:30	17° ≈ 46′06			-666 Sep 16 j 18:18	0 \circ Ω	
	-671 Jul 27 j 00:32	15° R ≈		retrograde	-666 Nov 30 j 07:03	7° Ω 40′28	
opposition	-671 Aug 13 j 13:04	12° ≈ 45′06	-1°-33'-53	opposition	-665 Jan 29 j 08:40	2° Ω 44'38	1°20'55
min. Earth dist.	-671 Aug 12 j 22:13	12° ≈ 50′02	3.98143 AU	min. Earth dist.	-665 Jan 29 j 16:54	2° Ω 41'56	4.40761 AU
direct	-671 Oct 10 j 21:18	7° ≈ 51'40			-665 Feb 20 j 14:17	30° ₹ 🥯	
	-671 Dec 18 j 11:08	15° ≈		direct	-665 Apr 01 j 07:23	27°9641'16	
evening set	-670 Feb 12 j 22:11	27° ≈ 23'58			-665 May 11 j 10:58	$0^{\circ}\Omega$	
	-670 Feb 23 j 18:10	0°) €			-665 Aug 04 j 14:50	15° Ω	
	-			evening set	-665 Aug 06 j 13:04	15° Ω 24'52	
conjunction	-670 Feb 26 j 04:42	0° ₩ 35'12	-1°-10'-48				
minimum elong	-670 Feb 26 j 04:41	0° ¥ 35'12	1°10'49	conjunction	-665 Aug 19 j 14:58	18° Ω 15'00	1°06'35
max. Earth dist.	-670 Feb 27 j 15:04	0°¥55'52	5.97413 AU	minimum elong	-665 Aug 19 j 14:56	18° Ω 14'59	1°06'35
morning rise	-670 Mar 11 j 14:38	3°) 48'11	0.57.115.110	max. Earth dist.	-665 Aug 18 j 14:05	18° Ω 01'28	6.42670 AU
retrograde	-670 Jul 21 j 21:41	24°) 19'56		morning rise	-665 Sep 01 j 13:42	21°Ω03'35	0.12070110
min. Earth dist.	-670 Sep 18 j 11:23		3.98983 AU	morning risc	-665 Oct 15 j 14:38	0° m)	
		19° ∺ 15'37					
opposition	-670 Sep 19 j 17:30		-1*-48*-24	retrograde	-665 Dec 30 j 17:02	7° Mp 54'15	1045100
direct	-670 Nov 16 j 14:38	14°) €20'18		opposition	-664 Feb 29 j 03:13	•	1°45'09
	-669 Mar 05 j 21:10	0°Υ 2°Ω 4011.5		min. Earth dist.	-664 Mar 01 j 03:17	4	4.43015 AU
evening set	-669 Mar 22 j 06:19	3° Y 48'15			-664 Mar 25 j 08:57	30°R Ω	
				direct	-664 May 01 j 18:42	27° Ω 58'47	
conjunction	-669 Apr 04 j 20:33	7° Y ′00'41	-1°-6'-34		-664 Jun 08 j 08:59	0° m)	
minimum elong	-669 Apr 04 j 20:36		1°06'35	evening set	-664 Sep 05 j 14:14	15° m 39'10	
max. Earth dist.	-669 Apr 07 j 00:26	7° Ƴ 31'20	6.02291 AU	max. Earth dist.	-664 Sep 16 j 14:07	18° Mp 03′20	6.41443 AU
morning rise	-669 Apr 18 j 13:15	10° Ƴ 14'15					
	-669 Aug 16 j 14:47	9° 8		conjunction	-664 Sep 18 j 08:58	18° Mp 26′50	1°13'28
retrograde	-669 Aug 26 j 23:36	0° 8 10'41		minimum elong	-664 Sep 18 j 08:59	18° m 26'50	1°13'27
	-669 Sep 06 j 06:15	30° ŖƳ		morning rise	-664 Oct 01 j 01:10	21° m)13'19	
min. Earth dist.	-669 Oct 24 j 04:01	25° Ƴ 16'32	4.07349 AU		-664 Nov 12 j 18:28	0० ⊽	
opposition	-669 Oct 25 j 12:18	25° Y ′05'30	-1°-21'-3	retrograde	-663 Jan 29 j 19:10	8° £ 14'32	
direct	-669 Dec 22 j 21:14	20° Y ′07′08		opposition	-663 Mar 31 j 13:19	3° £ 22'48	1°40'59
	-668 Mar 16 j 00:52	0°B		min. Earth dist.	-663 Apr 01 j 22:43	3° £ 12'08	4.38466 AU
evening set	-668 Apr 27 j 05:17	9° 8 10'07			-663 Apr 29 j 17:47	30°R, MD	
evening sec	000 ripi 27 j 05.17	<i>y</i> 0 1007		direct	-663 Jun 02 j 04:56	28° M) 22'06	
conjunction	-668 May 10 j 23:44	12° 8 19'29	0°-37'-42	direct	-663 Jul 05 j 16:36	ე∘ <u>ი</u>	
		12° 8 19'30	0°37'42	evening set	-	0 = 16° £ 13'52	
minimum elong	-668 May 10 j 23:46	_		C	-663 Oct 06 j 09:24		(22072 ATT
max. Earth dist.	-668 May 12 j 23:14	12° 8 46'44	6.13377 AU	max. Earth dist.	-663 Oct 17 j 01:28	18° ≏ 36'37	6.33872 AU
	-668 May 22 j 16:07	15° 8					
morning rise	-668 May 24 j 19:04	15° 8 29'01		conjunction	-663 Oct 19 j 00:33	19° ≙ 02'58	0°59'59
	-668 Aug 05 j 20:05	Π °0		minimum elong	-663 Oct 19 j 00:36	19° ≏ 03'00	0°59'59
retrograde	-668 Sep 28 j 18:19	4° Ⅱ 22'28		morning rise	-663 Oct 31 j 13:54	21° ≏ 51'26	
	-668 Nov 22 j 07:08	30° ₹႘			-663 Dec 09 j 00:03	0° M	
min. Earth dist.	-668 Nov 26 j 06:51	29° 8 27'39	4.19915 AU	retrograde	-662 Mar 03 j 09:19	9°M29'01	
opposition	-668 Nov 27 j 07:46	29° 8 19'12	0°-26'-25	opposition	-662 May 03 j 08:26	4°MJ36'54	1°07'52
direct	-667 Jan 25 j 18:33	24° 8 17'59		min. Earth dist.	-662 May 04 j 17:31	4°M26'22	4.28287 AU
	-667 Mar 29 j 17:35	$\Pi^{\circ}0$			-662 Jun 19 j 03:45	30° ₹ Ω	
asc. node	-667 May 18 j 00:58	9° Ⅱ 34'38		direct	-662 Jul 04 j 07:36	29° ≏ 38'49	
evening set	-667 Jun 01 j 17:44	12° Ⅱ 47'50			-662 Jul 19 j 12:29	0° M .	
-	-				-662 Oct 24 j 22:04	15° M ₊	
conjunction	-667 Jun 15 j 10:36	15° Ⅱ 50'52	0°03'01	evening set	-662 Nov 06 j 19:59	17° M 54'41	
minimum elong	-667 Jun 15 j 10:36	15° Ⅲ 50'51	0°03'02	max. Earth dist.	-662 Nov 17 j 18:35	20°M25'20	6.21937 AU
behind sun begin	-667 Jun 15 j 02:19	15° Ⅱ 46'15					
behind sun end	-667 Jun 15 j 18:53	15° Ⅱ 55'27		conjunction	-662 Nov 19 j 10:58	20°M48'36	0°28'26
max. Earth dist.	-	16° Ⅱ 05'44	6.26454 AU	v	-		0°28'26
	-667 Jun 16 j 13:17	18° Д 53'03	0.20434 AU	minimum elong	-662 Nov 19 j 11:00	20°M48'37 23°M42'42	0 20 20
morning rise	-667 Jun 29 j 02:17			morning rise	-662 Dec 02 j 01:57		
	-667 Aug 22 j 19:03	0°©			-662 Dec 30 j 09:25	0° ⊼ ¹	
retrograde	-667 Oct 30 j 16:13	6°5544'11	000015	retrograde	-661 Apr 07 j 02:54	12° √ 17'11	0011
opposition	-667 Dec 29 j 09:14	1°9544'33	0°33'28	opposition	-661 Jun 07 j 00:23	7° ∡ ¹22'59	0°11'44
min. Earth dist.	-667 Dec 29 j 00:30	1° 95 47'28	4.32306 AU	min. Earth dist.	-661 Jun 07 j 22:46	7° ∡ 15'47 −	4.15329 AU
	-666 Jan 11 j 17:39	30°Ŗ Ⅱ		direct	-661 Aug 06 j 18:41	2° ҂ ¹27'37	
direct							
direct	-666 Feb 28 j 05:14	26° Ⅱ 41'36		desc. node	-661 Aug 19 j 11:00	2° ∡ ¹43'05	
direct	-666 Feb 28 j 05:14 -666 Apr 16 j 23:39	26°∏41'36 0°©		desc. node evening set	-661 Aug 19 j 11:00 -661 Dec 09 j 17:18	2° х¹ 43'05 21° х¹ 15'14	

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -661 in astronomical counting style is the year 662 BCE in historical counting style. 24°×15'57 0°-13'-34 -661 Dec 22 j 11:44 conjunction -655 Jun 20 i 03:45 20°**Ⅱ**25'50 conjunction minimum elong -661 Dec 22 i 11:43 24°**х** 15'57 0°13'36 -655 Jun 20 j 03:44 20°**Ⅲ**25'49 0°08'43 minimum elong behind sun begin -661 Dec 22 j 07:10 24°**₹**13'16 behind sun begin -655 Jun 19 j 20:36 20°II21'52 -661 Dec 22 j 16:17 24°**₹**18'38 -655 Jun 20 j 10:52 20°**Ⅲ**29'46 behind sun end behind sun end -661 Dec 21 j 17:18 24°**₹**05'04 -655 Jun 21 j 03:04 20°**Ⅲ**38'47 max. Earth dist. 6.09160 AU max. Earth dist. 6.28170 AU 27°**х** 17′40 -660 Jan 04 j 07:30 -655 Jul 03 j 18:28 morning rise morning rise 23°**Ⅲ**26′55 -660 Jan 15 j 22:18 0°궁 -655 Aug 03 j 12:32 0ಂತಾ -655 Nov 03 j 21:39 -660 May 12 j 20:15 11°9510'53 retrograde 16°**る**55'34 retrograde -660 Jul 12 j 10:42 -654 Jan 02 j 16:29 opposition 11°**る**58'01 0°-51'-50 opposition 6°9511'50 0°41'03 min. Earth dist. -660 Jul 12 j 13:33 11°**る**57'05 4.03817 AU min. Earth dist. -654 Jan 02 j 09:36 6°9514'07 4.33695 AU direct -660 Sep 09 j 18:47 7°る04'31 direct -654 Mar 04 j 15:11 1°9508'47 -659 Jan 12 j 13:43 26°る21'51 -654 Jul 09 j 22:53 evening set evening set 19°907'04 conjunction -659 Jan 25 j 13:45 29°**る**29'06 0°-52'-16 conjunction -654 Jul 23 j 08:05 22°**©**02'02 0°45'36 minimum elong -659 Jan 25 j 13:42 29°**る**29'04 0°52'17 minimum elong -654 Jul 23 j 08:02 22°902'01 0°45'36 max. Earth dist. -659 Jan 25 j 23:49 29°**る**35'09 5.99942 AU max. Earth dist. -654 Jul 23 j 03:17 21°959'25 6.38177 AU -659 Jan 27 j 17:10 0°**≈** morning rise -654 Aug 05 j 14:36 24°955'33 morning rise -659 Feb 07 j 16:44 2°≈37'58 -654 Aug 29 j 14:01 $0^{\circ}\Omega$ -659 Apr 05 j 01:09 15°≈ retrograde -654 Dec 04 j 13:18 12°**Ω**00'05 retrograde -659 Jun 19 j 15:31 23°≈01'46 opposition -653 Feb 02 j 14:45 7°**Ω**04'47 1°25'47 opposition -659 Aug 18 j 19:44 18°≈00'10 -1°-38'-26 min. Earth dist. -653 Feb 03 j 02:16 7°**Ω**01'01 4.41250 AU min. Earth dist. -659 Aug 18 j 01:34 18°≈06'15 3.97949 AU direct -653 Apr 05 j 17:07 2°Ω01'31 -659 Sep 12 j 02:16 15°R≈ -653 Jul 19 i 09:25 15°Ω direct -659 Oct 16 i 01:23 13°≈06'34 evening set -653 Aug 10 j 21:30 19°**Ω**44'43 -659 Nov 18 j 18:28 15°**≈** -658 Feb 06 j 23:11 0°\ conjunction -653 Aug 23 j 22:21 22°Ω34'26 1°08'41 evening set -658 Feb 18 j 03:29 2°\ 38'50 -653 Aug 23 j 22:20 22°Ω34'25 1°08'42 minimum elong max. Earth dist. -653 Aug 22 j 17:54 22°Ω18'57 6.42636 AU -658 Mar 03 j 11:12 5°**¥**50'21 -1°-11'-54 -653 Sep 05 j 20:05 25°**Ω**22'38 conjunction morning rise -658 Mar 03 j 11:12 -653 Sep 27 j 16:17 5°\ 50'21 1°11'55 0° m minimum elong -658 Mar 05 j 02:36 6°**升**14'00 5.97877 AU -652 Jan 03 j 23:38 12° m 14'09 max. Earth dist. retrograde -658 Mar 16 j 21:59 9°\(\)03'30 -652 Mar 04 j 10:59 7° m/21'26 1°46'18 morning rise opposition 29°**)** 31′40 -658 Jul 27 j 02:14 -652 Mar 05 j 12:24 7° m 13'16 4.42502 AU retrograde min. Earth dist. -658 Sep 24 j 20:09 -652 May 06 j 02:25 24°\(\frac{1}{27}\)'04 -1°-46'-51 direct 2° m 19'09 opposition -658 Sep 23 j 13:38 24°**升**37'26 4.00055 AU -652 Sep 09 j 21:40 20° Mp 01'20 min. Earth dist. evening set -652 Sep 20 j 20:57 -658 Nov 21 j 18:44 19°**₩**31'23 max. Earth dist. 22° m 25'32 6.40494 AU direct -657 Feb 15 j 13:45 $0^{\circ}\Upsilon$ evening set -657 Mar 27 j 11:00 8°Y55'34 conjunction -652 Sep 22 j 15:49 22° m/49'06 1°12'45 minimum elong -652 Sep 22 j 15:50 22° Mp 49'06 1°12'45 -657 Apr 10 j 01:56 12°**Y**′07'38 -1°-3'-46 conjunction morning rise -652 Oct 05 j 07:17 25° m 35'43 minimum elong -657 Apr 10 j 01:59 12°Υ07'39 1°03'47 -652 Oct 25 j 20:22 0∘**⊽** max. Earth dist. -657 Apr 12 j 06:00 12°**Υ**38'14 6.03841 AU retrograde -651 Feb 03 j 06:36 12°**-**41'17 -657 Apr 23 j 19:22 15°**Y**20'46 -651 Apr 05 j 01:28 7°**2**49'39 1°37'58 morning rise opposition -657 Jul 04 j 00:16 0° 8 min. Earth dist. -651 Apr 06 j 11:16 7°**2**38'53 4.37149 AU -657 Aug 31 j 17:59 5°808'16 direct -651 Jun 06 j 15:39 2°**-**49′22 retrograde -657 Oct 28 i 23:02 0°**と**14'19 4.09202 AU -651 Oct 10 j 18:24 min. Earth dist. evening set 20°**₽**44'25 -651 Oct 21 j 09:27 -657 Oct 30 i 07:32 0°**8**03'13 -1°-14'-33 opposition max. Earth dist. 23°**2**07'13 6.32289 AU -657 Oct 30 i 16:59 30°RY -657 Dec 27 i 18:51 25°**Y**′04'25 -651 Oct 23 i 09:13 23°**△**34'04 0°56'29 direct conjunction -656 Feb 22 i 18:32 0°8 minimum elong -651 Oct 23 i 09:15 23°**₽**34'05 0°56'28 -656 May 02 j 05:16 14°802'05 morning rise -651 Nov 04 j 22:44 26°**₽**23'13 evening set -656 May 06 j 11:04 15°8 -651 Nov 21 j 08:12 0°M retrograde -650 Mar 08 j 04:03 14°M08'01 -650 May 08 i 02:57 9°M15'40 1°01'03 conjunction -656 May 15 j 23:46 17°**8**10'36 0°-32'-25 opposition -656 May 15 j 23:48 -650 May 09 j 10:53 minimum elong 17°**8**10'37 0°32'25 min. Earth dist. 9°M05'29 4.26534 AU -656 May 17 j 20:05 -650 Jul 08 j 23:01 max. Earth dist. 17°**8**35'55 6.15374 AU direct 4°**M**₁7'58 -656 May 29 j 18:52 morning rise 20°**8**19'07 -650 Oct 07 j 12:11 15°M₀ -656 Jul 14 j 04:43 Π °0 -650 Nov 11 j 08:40 22°M37'54 evening set -656 Oct 03 j 06:54 9°**Ⅱ**02'55 -650 Nov 22 j 11:29 25°M11'31 6.20177 AU retrograde max. Earth dist. -656 Dec 01 j 19:56 4°**Ⅱ**00'07 0°-17'-58 opposition -656 Nov 30 j 22:06 4°**Д**07'31 4.21844 AU -650 Nov 24 j 00:06 25°M32'41 0°22'52 min. Earth dist. conjunction -655 Jan 05 j 08:59 30°₹**८** minimum elong -650 Nov 24 j 00:08 25°M32'42 0°22'52 28°**8**58'36 direct -655 Jan 30 j 12:10 morning rise -650 Dec 06 j 15:25 28°M27'43 -655 Feb 24 j 21:42 Π $^{\circ}0$ -650 Dec 13 j 08:50 0°**∡** asc. node -655 Mar 28 j 16:06 3°**Ⅱ**44'22 retrograde -649 Apr 12 j 03:31 17°**х** 10′36 evening set -655 Jun 06 j 11:28 17°**Ⅲ**23'47 opposition -649 Jun 12 j 00:56 12°**∡**16′01 0°02'43

min. Earth dist.

-649 Jun 12 j 20:44

12°**₹**09'39

4.13697 AU

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -649 in astronomical counting style is the year 650 BCE in historical counting style. 10°**₹**09'40 desc. node -649 Jun 28 i 22:36 conjunction -643 Jun 24 i 20:46 25°**Ⅱ**01'09 direct -649 Aug 11 j 14:46 7°**х** 21′00 minimum elong -643 Jun 24 j 20:45 25°**Ⅱ**01'09 0°14'20 -649 Dec 14 j 11:53 26°**х** 12′24 behind sun begin -643 Jun 24 j 17:12 24°**I**159'11 evening set -643 Jun 25 j 00:19 25°**Ⅲ**03'07 behind sun end -649 Dec 27 j 06:46 29° x 13'57 0°-19'-34 -643 Jun 25 j 15:00 25°**Ⅱ**11'16 conjunction max. Earth dist. 6.29584 AU -649 Dec 27 j 06:44 29°**х** 13′56 0°19'36 -643 Jul 08 j 10:42 minimum elong morning rise 28°**Ⅲ**01′16 -649 Dec 26 j 15:10 29°**х** 04'42 -643 Jul 17 j 12:11 6.07782 AU max. Earth dist. 0ಂತಾ -643 Nov 08 j 06:20 15°539'12 -649 Dec 30 j 12:25 0°₹ retrograde -648 Jan 09 j 03:29 -642 Jan 07 j 00:59 morning rise 2°る16'38 opposition 10°**©**40'41 0°48'27 retrograde -648 May 18 j 01:20 22°**る**01'34 min. Earth dist. -642 Jan 06 j 21:31 10°5541'49 4.34813 AU opposition -648 Jul 17 j 15:04 17°る03'23 0°-59'-57 direct -642 Mar 09 j 04:52 5°937'30 -648 Jul 17 j 14:28 -642 Jul 14 j 11:50 min. Earth dist. 17°**る**03'35 4.02819 AU evening set 23°933'43 -648 Sep 14 j 19:06 direct 12°**る**09'56 -647 Jan 11 j 07:08 0°≈ conjunction -642 Jul 27 j 20:03 26°9527'58 0°49'49 evening set -647 Jan 17 j 13:42 1°≈29'33 minimum elong -642 Jul 27 j 20:01 26°9527'56 0°49'49 max. Earth dist. -642 Jul 27 j 12:42 26°9523'57 6.38914 AU conjunction -647 Jan 30 j 14:49 4°**≈**37'27 0°-56'-28 morning rise -642 Aug 10 j 01:16 29°9520'40 minimum elong -647 Jan 30 j 14:46 4°≈37'25 0°56'29 -642 Aug 13 j 02:02 $0^{\circ}\Omega$ max. Earth dist. -647 Jan 31 j 06:28 4°≈46'52 5.99409 AU -642 Nov 09 j 01:54 15°**Ω** morning rise -647 Feb 12 j 18:40 7°≈46'58 retrograde -642 Dec 08 j 18:25 16°**Ω**22'35 -647 Mar 16 j 00:58 15°≈ -641 Jan 07 j 10:56 15°RΩ retrograde -647 Jun 24 i 22:04 28°≈13'13 opposition -641 Feb 06 i 22:13 11°Ω27'43 1°30'17 min. Earth dist. -647 Aug 23 i 04:37 23°≈17'40 3.97959 AU min. Earth dist. -641 Feb 07 i 10:55 11°**Ω**23'35 4.41598 AU opposition -647 Aug 24 j 00:12 23°≈11'06 -1°-42'-10 direct -641 Apr 10 j 01:58 6°**Ω**24'34 direct -647 Oct 21 j 04:21 18°≈17'19 -641 Jul 01 j 06:37 15°Ω -646 Jan 20 j 06:08 0°**₩** -641 Aug 15 j 07:18 24°Ω07'33 evening set -646 Feb 23 j 06:53 7° **X** 49'02 max. Earth dist. -641 Aug 27 j 00:17 26°**Ω**40′06 6.42576 AU evening set -646 Mar 08 j 15:31 11°\(\)00'44 -1°-12'-28 conjunction -641 Aug 28 j 07:01 26°Ω56'50 1°10'28 conjunction -646 Mar 08 j 15:30 11°\(\)00'44 1°12'28 minimum elong -641 Aug 28 j 06:59 26°**Ω**56'49 1°10'28 minimum elong -646 Mar 10 j 08:42 -641 Sep 10 j 03:45 29°**Ω**44'40 max. Earth dist. 11°**¥**25′24 5.98397 AU morning rise -646 Mar 22 j 03:28 14°**)**€ 14'06 -641 Sep 11 j 08:07 0° m morning rise -646 Jun 06 j 11:47 $0^{\circ}\Upsilon$ -640 Jan 08 j 08:46 16° Mp 37'00 retrograde 4° Y 38' 27 -640 Mar 08 j 20:37 -646 Aug 01 j 02:23 11° mp 44'36 1°46'54 retrograde opposition -640 Mar 09 j 23:52 4.42066 AU -646 Sep 26 j 14:34 30°**₹** 11°Mp35'51 min. Earth dist. -646 Sep 29 j 20:12 29°**)** 33'37 -1°-44'-33 -640 May 10 j 13:38 6° Mp 42'38opposition direct 29°**)** 44'32 4.01049 AU 24° Tp 25'53 -646 Sep 28 j 12:06 -640 Sep 14 j 05:57 min. Earth dist. evening set direct -646 Nov 26 j 18:49 24°**)** 37'31 max. Earth dist. -640 Sep 25 j 03:00 26° Mp 49'14 6.39722 AU -645 Jan 24 j 16:39 $0^{\circ}\Upsilon$ evening set -645 Apr 01 j 14:01 13°**Y**58'36 conjunction -640 Sep 26 j 23:24 27° m 13'42 1°11'40 minimum elong -640 Sep 26 j 23:25 27° Mp 13'42 1°11'40 -645 Apr 15 j 05:43 17°Υ10'22 -1°00'-33 morning rise -640 Oct 09 j 14:25 0°**₽**00'26 conjunction -645 Apr 15 j 05:46 17°Υ10'24 1°00'33 -640 Oct 09 j 13:39 0°**∿** minimum elong max. Earth dist. -645 Apr 17 j 09:05 17°**Ƴ**40′28 6.05215 AU retrograde -639 Feb 07 j 18:48 17°**♀**09'50 -645 Apr 28 j 23:40 20°**Y**23′05 -639 Apr 09 j 15:02 12°**2**18'10 1°34'24 morning rise opposition -645 Jun 11 j 18:00 -639 Apr 11 j 00:06 0°8 min. Earth dist. 12°**2**07'38 4.36105 AU -645 Sep 05 i 12:39 retrograde 10°802'35 direct -639 Jun 11 i 03:18 7°**♀**18'16 -645 Nov 02 j 18:44 5°**႘**08'06 4.10785 AU min. Earth dist. evening set -639 Oct 15 i 03:31 25°**♀**15'22 opposition -645 Nov 04 i 01:16 4°**8**57'40 -1°-7'-39 max. Earth dist. -639 Oct 25 j 21:06 27°**♀**40'00 6.31078 AU -645 Dec 28 i 17:34 30°R**Ƴ** 29°Y58'23 direct -644 Jan 01 i 16:42 conjunction -639 Oct 27 i 18:14 28°**£**05'26 0°52'41 -644 Jan 05 j 15:57 0°8 minimum elong -639 Oct 27 j 18:17 28°**₽**05'28 0°52'40 -644 Apr 19 j 20:58 15°8 -639 Nov 05 j 05:30 0°M -639 Nov 09 j 07:34 -644 May 07 j 04:23 evening set 18°**8**51'51 morning rise 0°M55'04 -638 Jan 21 j 04:05 15°M conjunction -644 May 20 j 23:04 21°**8**59'41 0°-26'-57 retrograde -638 Mar 12 j 21:38 18°ML45'48 minimum elong -644 May 20 j 23:06 21°**8**59'42 0°26'58 -638 May 04 j 01:52 15°RM max. Earth dist. -644 May 22 j 17:59 22°**8**24'06 6.17049 AU -638 May 12 j 21:19 13°M53'16 0°53'55 opposition -644 Jun 03 j 17:53 25°**8**07'21 min. Earth dist. -638 May 14 j 04:08 4.25220 AU morning rise 13°M43'27 -644 Jun 25 j 19:56 $0^{\circ}\Pi$ direct -638 Jul 13 j 14:38 8°M56'02 -644 Oct 07 j 17:42 13°**Ⅲ**42'38 -638 Sep 17 j 06:43 15°M retrograde min. Earth dist. -644 Dec 05 j 11:12 8°**I**47'15 4.23451 AU evening set -638 Nov 15 j 20:49 27°M18'29 opposition -644 Dec 06 j 07:48 8°**Ⅱ**40'18 0°-9'-28 max. Earth dist. -638 Nov 27 j 01:03 29°M53'27 6.18875 AU direct -643 Feb 04 j 03:00 3°**Ⅲ**38′29 -638 Nov 27 j 12:21 0°⊀ asc. node -643 Feb 05 j 22:21 3°**Ⅲ**38'48 -643 Jun 11 j 05:20 22°**I**100'03 -638 Nov 28 j 12:20 0°**∡**13'54 0°17'16 evening set conjunction

-638 Nov 28 j 12:21

minimum elong

0° **₹**13'54 0°17'15

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -638 in astronomical counting style is the year 639 BCE in historical counting style. 3°**₹**09'44 -638 Dec 11 i 04:17 asc. node -632 Dec 17 j 23:07 12°**Ⅲ**20′15 morning rise -637 Apr 17 j 02:08 21°×759'30 direct -631 Feb 08 j 18:34 8°**Ⅱ**16'00 retrograde -637 May 09 j 19:40 21°×11'34 -631 Jun 15 j 22:12 26°**Ⅲ**34'55 desc. node evening set -637 Jun 16 j 23:48 17°**∡**°04'28 0°-6'-7 opposition -637 Jun 17 j 16:33 16°**₹**′59'04 -631 Jun 29 j 13:04 29°II35'16 0°19'48 min. Earth dist. 4.12492 AU conjunction 0°19'48 12°**₹**09'44 -631 Jun 29 j 13:02 -637 Aug 16 j 09:18 29°**Ⅲ**35′15 direct minimum elong -637 Dec 14 j 15:56 -631 Jun 30 j 05:34 29°**Ⅱ**44'24 6.30771 AU 0°궁 max. Earth dist. -637 Dec 19 j 04:13 1°**る**03'36 -631 Jul 01 j 09:47 evening set 000 -631 Jul 13 j 01:51 morning rise 2°934'27 conjunction -637 Dec 31 j 23:52 4°る05'52 0°-25'-17 retrograde -631 Nov 12 j 12:30 20°907'01 minimum elong -637 Dec 31 j 23:50 4°る05'51 0°25'18 opposition -630 Jan 11 j 08:46 15°909'01 0°55'27 -637 Dec 31 j 13:16 3°**⋜**59'35 min. Earth dist. -630 Jan 11 j 06:32 max. Earth dist. 6.06791 AU 15°**©**09'46 4.35805 AU -636 Jan 13 j 21:13 -630 Mar 13 j 15:40 morning rise 7°**る**09'18 direct 10°905'48 retrograde -636 May 23 j 04:42 26°る59'56 evening set -630 Jul 19 j 00:14 28°900'08 opposition -636 Jul 22 j 16:33 22°**る**01'16 -1°-7'-23 -630 Jul 28 j 04:53 $0^{\circ}\Omega$ min. Earth dist. -636 Jul 22 j 14:14 22°る02'02 4.02141 AU direct -636 Sep 19 j 17:17 17°る07'55 conjunction -630 Aug 01 j 07:10 0°**Ω**53'35 0°53'42 -636 Dec 25 j 12:55 minimum elong -630 Aug 01 j 07:07 0°**£**53′33 0°53'42 evening set -635 Jan 22 j 10:56 6°≈28'58 max. Earth dist. -630 Jul 31 j 19:37 0°**Ω**47'17 6.39624 AU morning rise -630 Aug 14 j 11:19 3°**Ω**45'32 conjunction -635 Feb 04 j 12:47 9°≈37'22 -1°00'-6 -630 Oct 10 j 14:14 15°**Ω** minimum elong -635 Feb 04 i 12:45 9°**≈**37'21 1°00'07 retrograde -630 Dec 13 j 01:29 20°**Ω**44'50 max. Earth dist. -635 Feb 05 i 06:30 9°**≈**48'01 5.99082 AU opposition -629 Feb 11 i 05:38 15°Ω50'19 1°34'13 morning rise -635 Feb 17 i 17:48 12°≈47'29 min. Earth dist. -629 Feb 11 i 21:03 15°**Ω**45'19 4.41990 AU -635 Feb 27 j 01:23 15°**≈** -629 Feb 17 i 17:07 15°RΩ -635 May 14 j 17:56 0°**₩** direct -629 Apr 14 j 13:15 10°**Ω**47'12 -635 Jun 29 j 22:33 3°¥15'24 -629 Jun 08 j 21:21 15°Ω retrograde -635 Aug 15 j 10:19 -629 Aug 19 j 15:49 28°**Ω**29'18 30°R≈ evening set -635 Aug 28 j 02:19 28°≈20'20 3.98050 AU -629 Aug 26 j 15:05 min Earth dist 0° m -635 Aug 29 j 00:32 28°≈12'53 -1°-44'-59 max. Earth dist. -629 Aug 31 j 06:29 1° 100'39 6.42591 AU opposition -635 Oct 26 j 02:11 23°≈18'54 direct 1°m/18'10 1°11'50 -635 Dec 31 j 04:21 0°**)**€ -629 Sep 01 j 14:38 conjunction -634 Feb 28 j 07:08 12° ¥ 50'19 -629 Sep 01 j 14:37 minimum elong 1° Mp 18'09 1°11'50 evening set -629 Sep 14 j 10:16 4° m 05'34 morning rise -634 Mar 13 j 16:50 16°**)** €02'17 -1°-12'-28 -628 Jan 12 j 14:53 20° m 58'23conjunction retrograde -634 Mar 13 j 16:51 16°¥02'17 1°12'29 -628 Mar 13 j 05:20 16° Mp 06'05 1°46'53 minimum elong opposition -634 Mar 15 j 11:37 16°**¥**27'50 5.98889 AU -628 Mar 14 j 08:48 15° Mp 57'16 4.41700 AU max. Earth dist. min. Earth dist. morning rise -634 Mar 27 j 05:41 19°**¥**15'49 direct -628 May 14 j 22:06 11°M)04'17 -634 May 14 j 13:07 $0^{\circ}\Upsilon$ evening set -628 Sep 18 j 12:59 28° Mp 48'109°**Υ**36'48 retrograde -634 Aug 06 j 00:40 -628 Sep 23 j 23:50 0∘**⊽** min. Earth dist. -634 Oct 03 j 09:17 4°Υ42'32 4.01883 AU max. Earth dist. -628 Sep 29 j 09:00 1°**£**11'15 6.38974 AU -634 Oct 04 j 16:41 4°Υ31'50 -1°-41'-36 opposition -634 Nov 16 j 06:18 30°**₹**₩ conjunction -628 Oct 01 j 05:46 1°**2**35'59 1°10'10 direct -634 Dec 01 j 17:13 29°**)** 35′19 minimum elong -628 Oct 01 j 05:47 1°**2**36'00 1°10'09 -634 Dec 17 j 04:09 $0^{\circ}\Upsilon$ -628 Oct 13 j 20:15 4°**₽**22'48 morning rise -633 Apr 06 j 14:04 18°**Y**54'20 -627 Feb 12 i 06:38 21°**△**35'55 evening set retrograde -627 Apr 14 j 03:24 opposition 16°**△**44'12 1°30'18 -633 Apr 20 j 06:38 22°**Y**'06'00 0°-57'00 conjunction min. Earth dist. -627 Apr 15 j 13:38 16°**2**33'19 4.34986 AU -633 Apr 20 j 06:41 minimum elong 22°**Y**'06'01 0°57'00 direct -627 Jun 15 j 15:13 11°**£**44'34 -633 Apr 22 i 10:33 22°\bar{`36'19} max. Earth dist. 6.06329 AU evening set -627 Oct 19 j 11:27 29°**£**44′00 25°**Y**18′26 -633 May 04 i 01:05 -627 Oct 20 j 15:58 0°M morning rise -633 May 24 j 16:52 0°8 max. Earth dist. -627 Oct 30 j 04:23 2°ML08'47 6.29657 AU retrograde -633 Sep 10 j 04:15 14°851'09 -633 Nov 07 j 10:30 min. Earth dist. 9°**8**56'45 4.12069 AU conjunction -627 Nov 01 j 02:03 2°M34'36 0°48'35 -1°00'-31 opposition -633 Nov 08 j 16:31 9°**8**46'31 minimum elong -627 Nov 01 j 02:05 2°M34'37 0°48'35 4°**8**46'55 morning rise direct -632 Jan 06 j 09:46 -627 Nov 13 j 15:37 5°M24'53 -632 Apr 02 j 01:07 15°₩ -627 Dec 29 j 02:20 15°M -626 Mar 17 j 14:35 -632 May 12 j 01:41 23°**8**37'31 23°M22'27 evening set retrograde -626 May 17 j 15:04 0°46'25 opposition 18°**M**29'35 -632 May 25 j 20:13 26°**8**44'43 0°-21'-27 min. Earth dist. -626 May 18 j 20:03 18°M20'20 4.23572 AU conjunction -632 May 25 j 20:14 26°**8**44'44 -626 Jun 17 j 01:57 minimum elong 0°21'27 15°RM -632 May 27 j 11:03 27°**8**06'45 max. Earth dist. 6.18404 AU direct -626 Jul 18 j 04:03 13°M32'38 morning rise -632 Jun 08 j 14:54 29°**8**51'43 -626 Aug 18 j 02:10 15°M -632 Jun 09 j 05:39 Π °0 -626 Nov 11 j 16:49 0°**∡**7 retrograde -632 Oct 12 j 04:27 18°**Ⅲ**19'56 evening set -626 Nov 20 j 08:37 1°**х** 58′57 -632 Dec 10 j 18:32 13°**耳**18′04 0°-1′-6 max. Earth dist. -626 Dec 01 j 16:59 4°**₹**36'51 6.17147 AU opposition

min. Earth dist.

-632 Dec 10 j 00:26

13°**Ⅲ**24'10 4.24761 AU

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -626 in astronomical counting style is the year 627 BCE in historical counting style. 4°**₹**55'15 0°11'31 -626 Dec 03 i 00:38 minimum elong -620 May 30 j 20:18 1°**耳**35′01 0°15'42 conjunction -626 Dec 03 i 00:39 4°**₹**'55'15 0°11'30 behind sun begin -620 May 30 j 19:43 1°**Ⅲ**34'41 minimum elong behind sun begin -626 Dec 02 j 18:48 4°**х** 51′53 behind sun end -620 May 30 j 20:53 1°**I**I35′20 -626 Dec 03 j 06:29 4°**х** 58'38 -620 Jun 01 j 10:30 1°**Ⅱ**56'35 behind sun end max. Earth dist. 6.20373 AU -626 Dec 15 j 17:01 7°**х¹**52′03 -620 Jun 13 j 14:17 4°**Ⅱ**40'51 morning rise morning rise -625 Mar 20 j 05:55 -620 Oct 16 j 15:55 22°**Ⅲ**59'33 desc. node 25°**х** 11′18 retrograde -620 Oct 28 j 03:33 -625 Apr 22 j 04:01 22°**Ⅱ**46′26 retrograde 26°**х** 50′27 asc. node 0°07'21 -620 Dec 15 j 06:37 opposition -625 Jun 21 j 23:27 21°**х** 54'59 0°-15'-4 opposition 17°**Ⅲ**58'14 -620 Dec 14 j 13:55 min. Earth dist. -625 Jun 22 j 14:56 21°**х¹**49'58 4.10807 AU min. Earth dist. 18°**Ⅲ**03'51 4.26778 AU 17°**∡**00′29 -619 Feb 13 j 11:24 direct -625 Aug 21 j 04:59 direct 12°**Ⅲ**55'59 -625 Nov 27 j 22:31 0°₹ -619 Jun 15 j 07:39 000 -625 Dec 23 j 22:31 5°**る**58'47 -619 Jun 20 j 15:21 1°909'36 evening set evening set conjunction -624 Jan 05 j 18:48 9°**る**01'59 0°-30'-56 conjunction -619 Jul 04 j 05:04 4°**©**08'43 0°25'09 minimum elong -624 Jan 05 j 18:46 9°**ට**01'58 0°30'57 minimum elong -619 Jul 04 j 05:02 4°9508'42 0°25'10 max. Earth dist. -624 Jan 05 j 10:31 8°る57'04 6.05294 AU max. Earth dist. -619 Jul 04 j 17:04 4°9515'20 6.32675 AU morning rise -624 Jan 18 j 17:16 12°る06'31 morning rise -619 Jul 17 j 16:50 7°906'38 -624 Apr 21 j 15:11 0°≈ retrograde -619 Nov 16 j 18:27 24°531'42 retrograde -624 May 28 j 08:34 2°≈04'35 opposition -618 Jan 15 j 16:04 19°**5**34'12 1°02'01 -624 Jul 04 j 04:33 30°Ŗる min. Earth dist. -618 Jan 15 j 16:31 19°534'03 4.37461 AU opposition -624 Jul 27 j 20:02 27°る05'21 -1°-14'-33 direct -618 Mar 18 j 04:00 14°930'53 min. Earth dist. -624 Jul 27 j 14:04 27°**る**07'19 4.01001 AU -618 Jul 12 j 10:39 $0^{\circ}\Omega$ direct -624 Sep 24 i 15:34 22°る12'01 evening set -618 Jul 23 j 10:19 2°Ω21'04 -624 Dec 06 i 01:39 0°≈ evening set -623 Jan 27 j 11:48 11°≈36'26 conjunction -618 Aug 05 i 16:09 5°**Ω**13'30 0°57'11 minimum elong -618 Aug 05 j 16:06 5°Ω13'29 0°57'11 -623 Feb 09 i 14:47 14°≈45'37 -1°-3'-24 max. Earth dist. -618 Aug 05 j 02:35 5°Ω06'07 6.40898 AU conjunction -623 Feb 09 j 14:44 14°≈45'36 1°03'25 -618 Aug 18 j 18:47 8°**Ω**04'23 minimum elong morning rise -623 Feb 10 j 14:40 -618 Sep 21 j 03:05 15°**Ω** 15°≈ -623 Feb 10 j 12:48 -618 Dec 17 j 03:27 14°≈58'52 5.98396 AU 24°**Ω**59'37 max. Earth dist. retrograde -623 Feb 22 j 20:49 17°**≈**56'30 -617 Feb 15 j 10:19 20°**Ω**05'31 1°37'28 opposition morning rise -623 Apr 18 j 12:01 min. Earth dist. -617 Feb 16 j 03:12 20° **Ω**00'03 4.42808 AU 0°\ -623 Jul 05 j 05:13 -617 Apr 18 j 19:59 retrograde 8°\ 27'11 direct 15°**Ω**02'33 -623 Sep 02 j 05:15 min. Earth dist. 3°**升**32'05 3.97904 AU -617 Aug 11 j 04:38 0° m -623 Sep 03 j 04:40 2° My 42'373°**)** €24'12 -1°-47'-7 -617 Aug 23 j 21:03 opposition evening set -623 Oct 01 j 06:10 max. Earth dist. -617 Sep 04 j 06:31 5° Mp 11'13 6.42864 AU 30°R≈ 28°**≈**29'57 -623 Oct 31 j 05:37 direct -623 Nov 30 j 01:43 0°**)**€ conjunction -617 Sep 05 j 18:40 5° m 30'56 1°12'44 evening set -622 Mar 05 j 11:59 18°\01'51 minimum elong -617 Sep 05 j 18:39 5° m 30'55 1°12'44 morning rise -617 Sep 18 j 13:28 8° m 17'52 conjunction -622 Mar 18 j 22:53 21°\dagger14'09 -1°-11'-54 retrograde -616 Jan 16 j 20:06 25° To 10'50-622 Mar 18 j 22:54 21°\(\dagger)14'10\) 1°11'55 -616 Mar 17 j 10:55 20° m 18'45 1°46'15 minimum elong opposition max. Earth dist. -622 Mar 20 j 20:59 21°**)** 41'38 5.99298 AU min. Earth dist. -616 Mar 18 j 17:14 20° Mp 09'03 4.41402 AU -622 Apr 01 j 12:46 24°**)**€27'57 direct -616 May 19 j 05:19 15° **m** 17'08 morning rise -622 Apr 25 j 11:26 $0^{\circ}\Upsilon$ -616 Sep 08 j 16:30 0°**∿** -622 Aug 11 j 02:24 14°**Y**45′08 -616 Sep 22 j 16:02 retrograde evening set 3°**₽**01'42 -622 Oct 08 i 08:37 -616 Oct 03 j 10:00 min. Earth dist. 9°**Υ**51'11 4.02827 AU max. Earth dist. 5°**£**23'58 6.38107 AU -622 Oct 09 j 17:08 9°Y40'06 -1°-37'-46 opposition 4°**Υ**43'15 -616 Oct 05 i 08:25 5°**2**49'39 1°08'19 direct -622 Dec 06 i 17:35 conjunction minimum elong evening set -621 Apr 11 j 18:53 23°Y59'38 -616 Oct 05 i 08:27 5°**£**49'40 1°08'18 morning rise -616 Oct 17 j 22:30 8°**£**36'41 -621 Apr 25 j 11:57 27°Υ10'55 0°-52'-54 retrograde -615 Feb 16 j 14:21 25°**£**54'25 conjunction -621 Apr 25 j 12:00 27°**Y**10′57 0°52'55 -615 Apr 18 j 12:44 21° **2**02'39 1°25'49 minimum elong opposition -621 Apr 27 j 14:26 27°**Υ**40'18 6.07739 AU -615 Apr 19 j 22:44 max. Earth dist. min. Earth dist. 20° **2**51'50 4.33588 AU -621 May 07 j 15:16 -615 Jun 19 j 21:18 0°8 direct 16°**♀**03'19 -621 May 09 j 06:57 morning rise 0°**8**22'55 -615 Oct 05 j 02:23 0°M -621 Jul 20 j 09:34 15°₩ evening set -615 Oct 23 j 16:37 4°M06'23 -621 Sep 14 j 22:03 19°847'11 max. Earth dist. -615 Nov 03 j 10:17 6°M32'10 6.27839 AU retrograde -621 Nov 11 j 08:24 15°R₩ -621 Nov 12 j 05:39 min. Earth dist. 14°**8**52'46 4.13805 AU -615 Nov 05 j 07:13 6°ML57'42 0°44'18 conjunction -621 Nov 13 j 10:51 14°**8**42'49 0°-52'-45 -615 Nov 05 j 07:16 0°44'18 opposition minimum elong 6°**I**L57'43 -620 Jan 11 j 08:14 direct 9°**8**42'50 morning rise -615 Nov 17 j 20:58 9°M48'50 -620 Mar 11 j 01:42 15°8 -615 Dec 11 j 08:53 15°M evening set -620 May 17 j 01:48 28°**8**28'41 retrograde -614 Mar 22 j 08:33 27°M55'02 -620 May 23 j 20:03 Π $^{\circ}0$ opposition -614 May 22 j 07:04 23°ML01'59 0°38'50 min. Earth dist. -614 May 23 j 12:20 22°M52'37 4.21425 AU -620 May 30 j 20:17 1°**Д**35'00 0°-15'-42 -614 Jul 22 j 16:38 18°ML05'20 conjunction direct

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -614 in astronomical counting style is the year 615 BCE in historical counting style. -614 Oct 26 i 04:50 0°×7 -608 May 06 i 22:25 $\Pi^{\circ}0$ -614 Nov 24 i 19:39 6°**х** 37'41 evening set -608 May 22 j 02:13 3°**Ⅱ**20'55 evening set max. Earth dist. -614 Dec 06 j 05:29 17'14 **ح**°9° 6.14862 AU -608 Jun 04 j 20:10 6°**Ⅱ**26′08 0°-9'-46 conjunction -608 Jun 04 j 20:11 -614 Dec 07 j 12:09 9°**х** 35′10 0°05′48 6°**Ⅲ**26′08 0°09'47 conjunction minimum elong -614 Dec 07 j 12:09 9°**х** 35′10 0°05'47 -608 Jun 04 j 13:26 6°**Ⅲ**22'22 minimum elong behind sun begin behind sun begin -614 Dec 07 j 04:29 9°**х** 30′42 -608 Jun 05 j 02:56 6°**Ⅲ**29'55 behind sun end -614 Dec 07 j 19:50 9°×39'37 -608 Jun 06 j 06:40 6°**Ⅱ**45'31 behind sun end max. Earth dist. 6.22427 AU -614 Dec 20 j 05:25 morning rise 12°**х** 33'17 morning rise -608 Jun 18 j 13:39 9°**Ⅲ**30'49 desc. node -613 Jan 29 j 18:14 21°×30'04 asc. node -608 Sep 06 j 05:04 24°**Ⅲ**34'35 27°**Ⅲ**39'59 -613 Mar 24 j 18:25 0°₹ retrograde -608 Oct 21 j 02:30 -613 Apr 27 j 04:07 1°る42'35 -608 Dec 19 j 18:52 22°**Ⅲ**39'06 retrograde opposition 0°15'51 -613 May 30 j 17:43 -608 Dec 19 j 04:08 30°₹**⋌**7 min. Earth dist. 22°**II**44'03 4.28716 AU opposition -613 Jun 26 j 22:59 26°**х** 46′40 0°-23'-51 direct -607 Feb 18 j 04:19 17°**Ⅲ**36'33 min. Earth dist. -613 Jun 27 j 11:09 26°**х¹**42'43 4.08578 AU -607 May 29 j 05:58 0ಂತಾ direct -613 Aug 25 j 21:41 21°×752'26 evening set -607 Jun 25 j 08:45 5°9545'24 -613 Nov 09 j 00:23 0°궁 evening set -613 Dec 28 j 17:57 10°る57'28 conjunction -607 Jul 08 j 21:30 8°9543'23 0°30'27 minimum elong -607 Jul 08 j 21:28 8°543'22 0°30'27 conjunction -612 Jan 10 j 15:12 14°**る**01'57 0°-36'-20 max. Earth dist. -607 Jul 09 j 06:21 8°9548'14 6.34349 AU minimum elong -612 Jan 10 j 15:09 14°る01'55 0°36'22 morning rise -607 Jul 22 j 07:54 11°9540'04 max. Earth dist. -612 Jan 10 j 11:34 13°る59'47 6.03329 AU retrograde -607 Nov 21 i 01:37 28°958'38 morning rise -612 Jan 23 j 14:40 17°る07'49 opposition -606 Jan 20 j 00:16 24°9501'42 1°08'24 -612 Mar 23 i 02:09 0°≈ min. Earth dist. -606 Jan 20 i 03:17 24°9500'42 4.38759 AU retrograde -612 Jun 02 j 17:15 7°≈15'15 direct -606 Mar 22 j 16:09 18°958'21 -612 Aug 02 j 01:39 2°≈15'27 -1°-21'-11 -606 Jun 25 j 08:32 $0^{\circ}\Omega$ opposition min. Earth dist. -612 Aug 01 j 17:25 2°≈18'11 3.99505 AU -606 Jul 27 j 21:54 6°Ω45'42 evening set -612 Aug 19 j 19:39 30°Rる max. Earth dist. -606 Aug 09 j 07:41 9°**Ω**27'08 6.41702 AU direct -612 Sep 29 j 18:05 27°る22'07 -612 Nov 08 j 22:23 0°≈ -606 Aug 10 j 02:22 9°Ω37'17 1°00'29 conjunction -611 Jan 24 j 20:55 -606 Aug 10 j 02:20 9°**Ω**37'16 1°00'29 15°≈ minimum elong -611 Feb 01 j 15:28 16°≈51'07 -606 Aug 23 j 03:55 12°**Ω**27'22 evening set morning rise -606 Sep 04 j 01:19 15°**Ω** -611 Feb 14 j 19:39 -606 Dec 21 j 10:25 20°≈01'15 -1°-6'-12 29°**Ω**20'18 conjunction retrograde -611 Feb 14 j 19:37 -605 Feb 19 j 17:55 20°≈01'14 1°06'12 24°Ω26'33 1°40'23 minimum elong opposition 5.97509 AU -611 Feb 15 j 22:46 min. Earth dist. -605 Feb 20 j 13:41 24° **Ω**20'10 4.43097 AU max. Earth dist. 20°≈17'35 -611 Feb 28 j 02:57 -605 Apr 23 j 05:59 19°**£**23′38 morning rise 23°**≈**13′05 direct -611 Mar 29 j 08:49 0°**)**€ -605 Jul 25 j 04:45 0° m retrograde -611 Jul 10 j 13:42 13°\ 46'33 evening set -605 Aug 28 j 04:57 7°m/03'18 min. Earth dist. -611 Sep 07 j 08:48 8°**¥**51'59 3.97761 AU max. Earth dist. -605 Sep 08 j 12:29 9°m/30'59 6.42608 AU opposition -611 Sep 08 j 11:05 8°**)** 43′07 -1°-48'-20 -611 Nov 05 j 09:23 3°**)** 48'36 -605 Sep 10 j 01:47 9° m 51'21 1°13'20 direct conjunction -610 Mar 10 j 20:07 23°**)**€20'42 -605 Sep 10 j 01:46 9°m/51'20 1°13'20 evening set minimum elong -605 Sep 22 j 19:32 12°m/38'00 morning rise -610 Mar 24 j 07:58 26°**)** 33'12 -1°-10'-42 -604 Jan 21 j 03:59 29° m 32'52 conjunction retrograde -610 Mar 24 i 07:59 -604 Mar 21 j 20:45 minimum elong 26°**)** 33'13 1°10'43 opposition 24° m 40'56 1°45'07 -610 Mar 26 i 07:36 -604 Mar 23 i 03:42 max. Earth dist. 27°**)**€01'33 5.99876 AU min. Earth dist. 24° m 31'03 4.40631 AU -610 Apr 06 j 22:58 29°**)** 47'10 morning rise direct -604 May 23 i 13:57 19° m 39'37 -610 Apr 07 j 20:45 $0^{\circ}\Upsilon$ -604 Aug 22 j 14:31 0∘**⊽** 19°**Y**59'05 retrograde -610 Aug 16 i 03:48 evening set -604 Sep 26 j 23:51 7°**£**26′13 min. Earth dist. -610 Oct 13 i 09:38 15°Υ05'14 4.04035 AU max. Earth dist. -604 Oct 07 j 15:46 9°**£**47'52 6.36872 AU -610 Oct 14 j 19:04 14°**Y**53'49 -1°-33'-2 opposition direct -610 Dec 11 j 21:48 9°Y56'26 conjunction -604 Oct 09 j 15:37 10° **1**4'27 1°06'03 29°Y08'51 -604 Oct 09 j 15:38 evening set -609 Apr 17 j 01:06 minimum elong 10°**£**14'28 1°06'03 -604 Oct 22 j 05:30 -609 Apr 20 j 17:45 0° 8 morning rise 13°**♀**01'53 -603 Feb 04 j 17:38 $0^{\circ}M$ $0^{\circ}\text{NL}25'25$ conjunction -609 Apr 30 j 18:52 2°819'38 0°-48'-20 retrograde -603 Feb 21 j 06:22 -609 Apr 30 j 18:55 2°**8**19'39 0°48'21 -603 Mar 09 j 18:06 minimum elong -609 May 02 j 22:19 2°**8**49'27 6.09453 AU -603 Apr 23 j 03:51 25°**♀**33'36 1°20'38 max. Earth dist. opposition -609 May 14 j 13:56 5°**8**30'52 min. Earth dist. -603 Apr 24 j 14:52 25°**≏**22'28 morning rise 4.31953 AU -609 Jun 27 j 06:19 15°8 direct -603 Jun 24 j 10:40 20°**₽**34'36 -609 Sep 19 j 17:36 24°**8**45'17 retrograde -603 Sep 17 j 08:52 0°M -609 Nov 17 j 01:58 min. Earth dist. 19°**8**50'37 4.15788 AU evening set -603 Oct 28 j 03:08 8°M41'49 opposition -609 Nov 18 j 05:49 19°**8**41'09 0°-44'-31 max. Earth dist. -603 Nov 07 j 21:56 11°ML08'53 6.25946 AU -608 Jan 02 j 10:51 15°R₩

direct

-608 Jan 16 j 07:57

-608 Jan 30 j 06:41

14°**8**40'45

15°₩

-603 Nov 09 j 17:56

-603 Nov 09 j 17:58

conjunction

minimum elong

11°**M**33'59

11°MJ34'00

0°39'33

0°39'32

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -603 in astronomical counting style is the year 604 BCE in historical counting style. morning rise 14°M26'02 -603 Nov 22 i 07:58 retrograde -597 Sep 24 i 06:55 29°832'50 -603 Nov 24 j 19:57 opposition 24°**8**29'05 0°-36'-18 -597 Nov 22 j 20:22 15°M. -602 Feb 12 j 20:44 0°×7 min. Earth dist. -597 Nov 21 j 17:32 24°838'12 4.17810 AU -602 Mar 27 j 06:09 2°**∡**'41'06 -596 Jan 21 j 02:07 19°**8**28'18 retrograde direct -602 May 09 j 07:26 -596 Apr 19 j 04:21 $\Pi^{\circ}0$ 30°RM opposition -602 May 27 j 05:01 27°ML47'46 0°30'31 -596 May 26 j 22:24 8°**Ⅲ**03'16 evening set -602 May 28 j 07:39 min. Earth dist. 27°M39'14 4.19415 AU -602 Jul 27 j 08:44 -596 Jun 09 j 15:56 11°**II**07'28 0°-4'00 direct 22°M51'34 conjunction -602 Oct 06 j 13:30 minimum elong -596 Jun 09 j 15:57 11°**Ⅲ**07'28 0°04'01 0°**∡**¹ -602 Nov 29 j 12:00 -596 Jun 09 j 07:44 evening set 11°**₹**′29′12 behind sun begin 11°**Ⅱ**02'53 desc. node -602 Dec 08 j 23:23 13°**х** 42′09 behind sun end -596 Jun 10 j 00:10 11°**Ⅱ**12'03 -602 Dec 11 j 02:01 14°**∡**11'52 -596 Jun 10 j 22:38 11°**Ⅲ**24'39 max. Earth dist. 6.12927 AU max. Earth dist. 6.24357 AU -596 Jun 23 j 08:37 morning rise 14°**Ⅱ**10'59 conjunction -602 Dec 12 j 05:01 14°**∡**¹27'43 0°00'-21 asc. node -596 Jul 17 j 15:31 19°**Ⅲ**26'53 minimum elong -602 Dec 12 j 05:00 14°**∡**°27'43 0°00'22 -596 Sep 17 j 22:08 0ಂತಾ behind sun begin -602 Dec 11 j 21:00 14°**₹**23'03 retrograde -596 Oct 25 j 11:56 2°511'48 behind sun end -602 Dec 12 j 12:59 14°**∡**³32'23 -596 Dec 01 j 19:56 30°RⅡ morning rise -602 Dec 24 j 22:59 17°**∡**27′00 opposition -596 Dec 24 j 03:53 27°**Ⅲ**11'30 0°23'56 -601 Feb 22 j 04:00 0°궁 min. Earth dist. -596 Dec 23 j 16:24 27°**Ⅲ**15′21 4.30383 AU retrograde -601 May 02 j 10:52 6°る45'55 direct -595 Feb 22 j 18:16 22°**II**08'48 opposition -601 Jul 02 j 03:37 1°る49'32 0°-32'-54 -595 May 10 j 11:11 0ಂತಾ min. Earth dist. -601 Jul 02 i 13:31 1°る46'19 4.06897 AU evening set -595 Jun 29 i 22:39 10°9514'00 -601 Jul 16 j 13:00 30°R.✓ -601 Aug 30 j 22:24 direct 26°**₹**'55'36 conjunction -595 Jul 13 j 10:23 13°9511'03 0°35'24 -601 Oct 14 j 04:10 0°₹ minimum elong -595 Jul 13 i 10:21 13°9511'02 0°35'24 -600 Jan 02 j 17:27 16°る05'07 max. Earth dist. -595 Jul 13 j 14:36 13°9513'22 6.35618 AU evening set -595 Jul 26 j 19:42 16°906'46 morning rise -600 Jan 15 j 15:36 19°る10'34 0°-41'-41 -595 Oct 09 j 02:32 $0^{\circ}\Omega$ conjunction -600 Jan 15 j 15:33 19°る10'32 0°41'42 -595 Nov 25 j 06:39 3°**Q**20'44 minimum elong retrograde -600 Jan 15 j 16:56 19°**る**11'22 max. Earth dist. 6.02079 AU -594 Jan 11 j 21:37 30°R55 -600 Jan 28 j 16:06 22°る17'26 -594 Jan 24 j 06:37 28°524'17 1°14'15 morning rise opposition 4.39576 AU -600 Mar 02 j 07:13 min. Earth dist. -594 Jan 24 j 11:59 28°9522'31 0°≈ 23°920'55 -600 Jun 08 j 02:19 -594 Mar 27 j 00:48 retrograde 12°≈30'50 direct -600 Aug 07 j 09:02 7°**≈**30'32 -1°-27'-20 -594 Jun 05 j 22:07 opposition 0° Ω min. Earth dist. -600 Aug 06 j 21:12 -594 Aug 01 j 07:23 11°**Ω**07'02 7°≈34'27 3.98872 AU evening set -600 Oct 04 j 21:17 direct 2°≈37'14 -599 Jan 07 j 02:33 -594 Aug 14 j 10:49 13°**Ω**58'04 1°03'22 15°**≈** conjunction evening set -599 Feb 06 j 20:33 22°≈07'37 minimum elong -594 Aug 14 j 10:46 13°**Q**58′02 1°03′22 -594 Aug 13 j 13:37 max. Earth dist. 13°**Ω**46'32 6.42009 AU -599 Feb 20 j 01:40 -594 Aug 19 j 04:42 conjunction 25°≈18'10 -1°-8'-32 15°**Ω** minimum elong -599 Feb 20 j 01:38 25°≈18'09 1°08'33 morning rise -594 Aug 27 j 11:06 16°**Ω**47'32 max. Earth dist. -599 Feb 21 j 07:59 25°≈36'25 5.97527 AU -594 Nov 05 j 21:05 0° m -599 Mar 05 j 10:08 28°≈30'29 retrograde -594 Dec 25 j 16:42 3°m/39'57 morning rise -599 Mar 11 j 16:47 0°**)**€ -593 Feb 14 j 10:47 30° R Ω -599 Jul 15 j 18:40 19°**)**€02'55 opposition -593 Feb 24 j 00:55 28°**Ω**46'36 1°42'44 retrograde -599 Sep 12 j 11:38 14°**¥**08'39 3.98441 AU -593 Feb 24 i 22:42 28° **Ω**39'34 4.42901 AU min. Earth dist. min. Earth dist. -599 Sep 13 i 16:05 -593 Apr 27 j 14:14 23°**Ω**43'53 opposition 13°**)** 59'01 -1°-48'-41 direct -599 Nov 10 j 13:53 -593 Jul 05 j 11:31 direct 9°**)** 04'11 0° m 28°**)** 33'37 evening set -598 Mar 16 i 01:56 evening set -593 Sep 01 j 12:37 11° m 24'36 -598 Mar 22 j 04:06 $0^{\circ}\Upsilon$ max. Earth dist. -593 Sep 12 j 15:47 13° m 50'17 6.41911 AU -598 Mar 29 j 14:54 1°Y46'00 -1°-9'00 conjunction -593 Sep 14 j 08:29 14° m 12'33 1°13'31 conjunction minimum elong -598 Mar 29 j 14:56 1°Y46'01 1°09'00 -593 Sep 14 j 08:29 14° m 12'33 1°13'30 minimum elong -598 Mar 31 j 17:41 2°**Υ**16'07 morning rise -593 Sep 27 j 01:41 16° **m** 59'14 max. Earth dist. 6.01148 AU -598 Apr 12 j 06:31 4°Υ59'39 -593 Dec 04 j 13:13 0∘**⊽** morning rise 25°Y03'56 -592 Jan 25 j 15:04 retrograde -598 Aug 21 j 03:39 retrograde 3°**♀**57'28 20°**Υ**09'52 4.05737 AU -592 Mar 19 j 04:11 min. Earth dist. -598 Oct 18 j 08:46 30°R, Mp -598 Oct 19 j 17:32 -592 Mar 26 j 07:37 19°**Y**′58'42 -1°-27'-44 29° m 05'38 1°43'23 opposition opposition 15°**Υ**00'55 -598 Dec 16 j 23:19 min. Earth dist. -592 Mar 27 j 15:54 28° m 55'19 4.39496 AU direct -597 Apr 03 j 20:39 0° 8 direct -592 May 28 j 00:02 24° Mp 04'34-597 Apr 22 j 03:30 4°808'05 -592 Aug 02 j 09:07 0∘**⊽** evening set evening set -592 Oct 01 j 08:01 11°**£**54'06 conjunction -597 May 05 j 21:28 7°**8**18'06 0°-43'-34 max. Earth dist. -592 Oct 12 j 00:52 14°**£**16'44 6.35396 AU minimum elong -597 May 05 j 21:31 7°**8**18'08 0°43'34 max. Earth dist. -597 May 07 j 22:48 7°**8**46'32 6.11417 AU conjunction -592 Oct 13 j 23:38 14°**£**42'49 1°03'21 morning rise -597 May 19 j 16:45 10°**8**28'30 -592 Oct 13 j 23:40 14°**£**42'50 1°03'21 minimum elong

morning rise

-592 Oct 26 j 13:14

17°**♀**30'45

-597 Jun 08 j 20:47

15°₩

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 28 Attention, astronomical year style is used: The year -592 in astronomical counting style is the year 593 BCE in historical counting style.

Attention, astronom	nical year style is used: T	he year -592 is	n astronomical co	unting style is the year 5	593 BCE in historical co	unting style.	
	-592 Dec 28 j 17:49	0° M			-586 Aug 20 j 10:17	9° 8	
retrograde	-591 Feb 25 j 22:01	5°M00'52		retrograde	-586 Aug 25 j 23:12	0° 8 03'04	
opposition	-591 Apr 27 j 20:35	0°M08'55			-586 Aug 31 j 11:55	30° ₹Ƴ	
min. Earth dist.	-591 Apr 29 j 06:07	29° ≏ 58'15	4.30235 AU	min. Earth dist.	-586 Oct 23 j 04:28		4.07250 AU
	-591 Apr 29 j 00:38	30°Ŗ Ω		opposition	-586 Oct 24 j 13:33	24° Y ′57'52	-1°-21'-57
direct	-591 Jun 28 j 23:24	25° ≏ 10'22		direct	-586 Dec 21 j 21:16	19° Y ′59'37	
	-591 Aug 26 j 12:15	0° ™			-585 Mar 16 j 15:43	0° 8	
evening set	-591 Nov 01 j 14:56	13°M21'37		evening set	-585 Apr 27 j 04:23	9° 8 02'36	
	-591 Nov 08 j 19:34	15° ™					
max. Earth dist.	-591 Nov 12 j 11:20	15°11L50'15	6.24135 AU	conjunction	-585 May 10 j 22:41	12° 8 12'00	
	50137 14:05 40	1.000 1.400	002.412.0	minimum elong	-585 May 10 j 22:44	12° 8 12'01	
conjunction	-591 Nov 14 j 05:43	16°M14'32		max. Earth dist.	-585 May 12 j 21:35		6.13123 AU
minimum elong	-591 Nov 14 j 05:45	16°M14'33	0°34'27		-585 May 23 j 03:58	15° 8	
morning rise	-591 Nov 26 j 20:12	19°M07'30		morning rise	-585 May 24 j 17:56	15° 8 21'37	
	-590 Jan 17 j 11:40	0° 🗷 7° -₹21104			-585 Aug 06 j 12:33	0° П 4° П 17'08	
retrograde	-590 Apr 01 j 06:25	7° ҂ ³31'04 2° ҂ ³37'19	0°21'54	retrograde	-585 Sep 28 j 21:41	30°R В	
opposition min. Earth dist.	-590 Jun 01 j 04:26 -590 Jun 02 j 05:20	2° x '3719 2° x '29'20	4.17625 AU	min. Earth dist.	-585 Nov 21 j 17:25 -585 Nov 26 j 10:12	29° 8 21'56	4.19520 AU
iiiii. Eartii tist.	-590 Jun 22 j 18:18	2 x 29 20 30°RM	4.17023 AU	opposition	-585 Nov 27 j 10:14	29° 8 13'46	4.19320 AU 0°-27'-58
direct	-590 Aug 01 j 04:42	27°M41'27		direct	-584 Jan 25 j 20:57	24° 8 12'39	0 -27 -38
direct	-590 Sep 09 j 00:39	0° x ¹		direct	-584 Mar 29 j 06:38	24 О 12 39	
desc. node	-590 Oct 18 j 04:39	6° ∡ 709'11		asc. node	-584 May 27 j 20:42	11° ∏ 51'54	
evening set	-590 Dec 04 j 05:07	16° × ⁷ 23'13		evening set	-584 May 31 j 17:57	12° ∏ 43'31	
evening set	-570 Dec 04 j 05.07	10 × 23 13		evening set	-304 Way 31 j 17.37	12 11-331	
conjunction	-590 Dec 16 j 22:45	19° х 22'40	0°-6'-30	conjunction	-584 Jun 14 j 11:03	15° ∏ 46'51	0°01'53
minimum elong	-590 Dec 16 j 22:45	19° x 22'40	0°06'31	minimum elong	-584 Jun 14 j 11:03	15° ∏ 46'50	
behind sun begin	-590 Dec 16 j 15:12	19° √ 18'14	0 0001	behind sun begin	-584 Jun 14 j 02:42	15° Ⅱ 42'12	0 010.
behind sun end	-590 Dec 17 j 06:18	19° ∡ 27'05		behind sun end	-584 Jun 14 j 19:23	15° I 51'28	
max. Earth dist.	-590 Dec 15 j 23:56	19° х 09'14	6.11329 AU	max. Earth dist.	-584 Jun 15 j 14:46	16° Ⅱ 02'18	6.25939 AU
morning rise	-590 Dec 29 j 17:27	22° ∡ ¹22'57		morning rise	-584 Jun 28 j 02:56	18° ∏ 49'22	
	-589 Feb 01 j 13:24	0°る			-584 Aug 22 j 02:14	0.ಪ	
retrograde	-589 May 07 j 15:29	11° る 49'44		retrograde	-584 Oct 29 j 19:19	6°5643'05	
opposition	-589 Jul 07 j 07:57	6° る 52'49	0°-41'-43	opposition	-584 Dec 28 j 12:58	1° 5 643'20	0°31'53
min. Earth dist.	-589 Jul 07 j 14:21	6° る 50'44	4.05641 AU	min. Earth dist.	-584 Dec 28 j 03:06	1° 5 546'38	4.31724 AU
direct	-589 Sep 04 j 21:53	1° る 59'05			-583 Jan 10 j 17:33	30°RⅡ	
evening set	-588 Jan 07 j 16:37	21° る 11'26		direct	-583 Feb 27 j 06:06	26° Ⅱ 40′28	
•	•				-583 Apr 16 j 04:20	0ಂತಾ	
conjunction	-588 Jan 20 j 15:28	24° る 17'33	0°-46'-41	evening set	-583 Jul 04 j 13:09	14° 5 43'07	
minimum elong	-588 Jan 20 j 15:25	24° る 17'32	0°46'42				
max. Earth dist.	-588 Jan 20 j 20:12	24° る 20'24	6.01250 AU	conjunction	-583 Jul 17 j 23:47	17° 5 39'19	0°40'11
morning rise	-588 Feb 02 j 17:03	27° る 25'14		minimum elong	-583 Jul 17 j 23:44	17° 5 39'18	0°40'10
	-588 Feb 13 j 15:05	0° ≈		max. Earth dist.	-583 Jul 17 j 23:44	17° © 39'17	6.36619 AU
	-588 May 02 j 06:24	15° ≈		morning rise	-583 Jul 31 j 07:55	20° 5 34'07	
retrograde	-588 Jun 13 j 08:29	17° ≈ 42'50			-583 Sep 15 j 16:38	0 $^{\circ}\Omega$	
	-588 Jul 25 j 14:55	15°R≈		retrograde	-583 Nov 29 j 14:20	7° Ω 44'20	
opposition	-588 Aug 12 j 14:44	12° ≈ 41'54	-1°-32'-43	opposition	-582 Jan 28 j 14:03	2° Ω 48'26	1°19'44
min. Earth dist.	-588 Aug 11 j 23:58	12° ≈ 46'49	3.98562 AU	min. Earth dist.	-582 Jan 28 j 22:34	2° Ω 45'39	4.40187 AU
direct	-588 Oct 10 j 00:23	7° ≈ 48'27			-582 Feb 20 j 09:06	30°₹∽	
	-588 Dec 17 j 21:50	15° ≈		direct	-582 Mar 31 j 12:10	27° © 45'08	
evening set	-587 Feb 11 j 23:50	27°≈19'07			-582 May 09 j 23:51	0 ° Ω	
	-587 Feb 23 j 04:08	0° ∀			-582 Aug 03 j 09:13	15° Ω	
	505 P	001/2	10.101.15	evening set	-582 Aug 05 j 17:54	15° Ω 30'32	
conjunction	-587 Feb 25 j 06:07	0°) (30'03	-1°-10'-18		500 A 10177	100 00	1005:
minimum elong	-587 Feb 25 j 06:06	0°) (30′02	1°10'20	conjunction	-582 Aug 18 j 20:15	18° Ω 21'04	
max. Earth dist.	-587 Feb 26 j 17:18	0°) €51'11	5.97756 AU	minimum elong	-582 Aug 18 j 20:13	18° Ω 21'02	1°05'58
morning rise	-587 Mar 10 j 15:28	3°) (42′38		max. Earth dist.	-582 Aug 17 j 19:40	18° Ω 07'41	6.42169 AU
retrograde	-587 Jul 20 j 23:04	24°) 13'04	10 401 10	morning rise	-582 Aug 31 j 19:29	21° Ω 10′03	
opposition	-587 Sep 18 j 18:35	19°) €08'51	-1°-48'-12	rotro c J-	-582 Oct 14 j 05:09	0°M) °°™∩⊃!⊃∈	
min. Earth dist.	-587 Sep 17 j 13:40	19°) 18'39	3.99202 AU	retrograde	-582 Dec 30 j 00:05	8° Mp 02'26	1011125
direct	-587 Nov 15 j 17:00	14° ¥ 13'39 0° Ƴ		opposition	-581 Feb 28 j 09:36	3° Mp 09'23 3° Mp 01'58	1°44'35
ovening set	-586 Mar 05 j 10:27	3° Υ 40'29		min. Earth dist.	-581 Mar 01 j 08:39	3°1001′58 30°8Ω	4.42646 AU
evening set	-586 Mar 21 j 06:06	3 T 40 29		direct	-581 Mar 26 j 23:14 -581 May 01 j 23:17	30°R31 28°Ω06'54	
conjunction	-586 Apr 03 j 19:50	6° Ƴ 52'41	-1°-6'-49	uncet	-581 Jun 07 j 05:37	28 3 2 00 34	
minimum elong	-586 Apr 03 j 19:52	6° Υ 52'43	1°06'51	evening set	-581 Sep 05 j 21:13	15° Mp 48'39	
max. Earth dist.	-586 Apr 05 j 22:41	7° Υ 22'43	6.02347 AU	max. Earth dist.	-581 Sep 16 j 23:47		6.41273 AU
morning rise	-586 Apr 17 j 12:21	10° Υ 06'08	J.J2J7/ AU	max. Darm dist.	501 50p 10 J 25.47	/וידינעור טיי	J. 112/J AU
		10000					

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -581 in astronomical counting style is the year 582 BCE in historical counting style. -581 Sep 18 j 16:22 18° m 36'33 1°13'18 minimum elong -575 Mar 02 j 07:21 5°**)** 33'59 1°11'30 conjunction -581 Sep 18 j 16:23 18° Mp 36'33 1°13'17 max. Earth dist. -575 Mar 03 j 19:42 5°**¥**55'48 5.98070 AU minimum elong -581 Oct 01 j 08:43 21°M 23'12 -575 Mar 15 j 17:55 8° **¥** 46'55 morning rise morning rise -575 Jul 25 j 21:39 -581 Nov 12 j 04:38 29° **)** 14'57 0∘ଫ retrograde -580 Jan 30 j 02:15 8°**£**24'38 -575 Sep 22 j 10:23 24°**升**20′50 3.99916 AU retrograde min. Earth dist. -575 Sep 23 j 16:52 -580 Mar 30 j 19:54 opposition 3°**£**32'58 1°41'05 opposition 24°**₭** 10'30 -1°-46'-56 -580 Apr 01 j 04:31 3°**₽**22'34 -575 Nov 20 j 14:45 min. Earth dist. 4.38534 AU direct 19°**)** 14′55 $0^{\circ}\Upsilon$ -580 Apr 30 j 21:07 30°₽, Тр -574 Feb 15 j 17:09 -580 Jun 01 j 11:21 -574 Mar 26 j 06:54 8°**Y**39'45 direct 28° My 32'21evening set -580 Jul 03 j 02:46 0∘**ত** evening set -580 Oct 05 j 17:14 16°**£**24'03 conjunction -574 Apr 08 j 21:36 11°**Υ**51'54 -1°-4'-14 -580 Oct 16 j 08:52 -574 Apr 08 j 21:38 11°**Y**51'55 1°04'15 max. Earth dist. 18°**≏**46'31 6.34195 AU minimum elong -574 Apr 11 j 00:16 12°**Y**21'45 6.03400 AU max. Earth dist. -580 Oct 18 j 08:22 15°**Y**05′08 conjunction 19°**₽**13'05 1°00'19 morning rise -574 Apr 22 j 14:45 minimum elong -580 Oct 18 j 08:24 19°**£**13'06 1°00'19 -574 Jul 04 j 07:34 0°8 morning rise -580 Oct 30 j 21:57 22°**2**01'29 retrograde -574 Aug 30 j 18:02 4°855'41 -580 Dec 07 j 12:21 0°M min. Earth dist. -574 Oct 27 j 23:26 0°**8**01'16 4.08510 AU retrograde -579 Mar 02 j 15:22 9°**™**37'19 -574 Oct 28 j 03:10 30°RY opposition -579 May 02 j 13:54 4°M45'13 1°08'41 opposition -574 Oct 29 j 06:42 29°**Y**50'36 -1°-15'-48 min. Earth dist. -579 May 03 j 22:33 4°ML34'48 4.28865 AU direct -574 Dec 26 j 17:49 24°Y51'54 -579 Jun 21 j 18:32 -573 Feb 22 j 22:20 0°8 direct -579 Jul 03 i 14:19 29°**-**47′03 evening set -573 May 02 i 02:53 13°**8**51'50 -579 Jul 15 i 10:23 0°M -573 May 07 j 02:24 15°8 -579 Oct 23 j 16:30 15°M -579 Nov 06 j 02:30 18°ML01'08 conjunction -573 May 15 j 21:32 17°**8**00'46 0°-33'-28 evening set max. Earth dist. -579 Nov 17 j 02:38 20°MJ32'21 6.22733 AU minimum elong -573 May 15 j 21:35 17°**8**00'48 0°33'29 max. Earth dist. -573 May 17 j 19:17 17°**8**26'57 6.14508 AU -579 Nov 18 j 17:36 20°M54'44 0°29'15 -573 May 29 j 16:44 20°**8**09'45 conjunction morning rise -579 Nov 18 j 17:38 0°29'15 -573 Jul 14 j 19:32 $\Pi^{\circ}0$ minimum elong 20°M,54'45 -579 Dec 01 j 08:17 -573 Oct 03 j 08:47 8°**I**57'40 23°M48'26 morning rise retrograde -579 Dec 29 j 06:17 opposition -573 Dec 01 j 22:03 3°**Д**54'46 0°-19'-41 0°**∡**¹ -573 Nov 30 j 22:57 -578 Apr 06 j 04:13 12°**₹**19'00 min. Earth dist. 4°**Д**02'35 4.20906 AU retrograde 7°**∡**124'56 0°13'15 -578 Jun 06 j 02:50 -572 Jan 04 j 08:20 30°₹**8** opposition -578 Jun 07 j 01:18 -572 Jan 30 j 11:16 28°**8**53'21 min. Earth dist. 7°**х** 17'44 4.16288 AU direct -572 Feb 25 j 23:35 Π °0 -578 Aug 05 j 22:52 2°×29'30 direct -578 Aug 28 j 17:12 -572 Apr 07 j 21:43 5°**Ⅲ**29'01 desc. node 3°**х** 18′33 asc. node -578 Dec 08 j 21:00 -572 Jun 05 j 12:29 17°**Ⅲ**21'21 evening set 21°**х** 13′58 evening set conjunction -578 Dec 21 j 14:58 24°**∡**14'06 0°-12'-25 conjunction -572 Jun 19 j 04:56 20°II23'53 0°07'32 minimum elong -578 Dec 21 j 14:58 24°**∡**14′06 0°12'26 minimum elong -572 Jun 19 j 04:54 20°**Ⅲ**23'52 0°07'33 behind sun begin -578 Dec 21 j 09:37 24°**х** 10′57 behind sun begin -572 Jun 18 j 21:24 20°**Ⅲ**19'42 behind sun end -578 Dec 21 j 20:18 24°**х** 17′14 behind sun end -572 Jun 19 j 12:25 20°**Ⅲ**28′02 max. Earth dist. -578 Dec 20 j 18:41 24°**∡**°02′08 6.10166 AU max. Earth dist. -572 Jun 20 j 04:02 20°**Ⅲ**36'45 6.27237 AU -577 Jan 03 j 10:31 27°**х** 15′14 -572 Jul 02 j 20:08 23°**II**25'32 morning rise morning rise -577 Jan 15 j 06:04 0°궁 -572 Aug 02 j 15:26 0ಂತಾ -577 May 12 j 17:55 -572 Nov 03 i 04:23 retrograde 16°る48'28 retrograde 11°513'11 -577 Jul 12 j 09:44 -571 Jan 01 j 21:38 opposition 11°る50'59 0°-50'00 opposition 6°513'56 0°39'31 min. Earth dist. -577 Jul 12 j 13:08 11°る49'52 4.04750 AU min. Earth dist. -571 Jan 01 i 14:51 6°9516'12 4.32840 AU direct -577 Sep 09 j 20:04 6°る57'22 direct -571 Mar 03 i 19:52 1°9510'54 evening set -576 Jan 12 j 13:17 26°る11'35 evening set -571 Jul 09 j 02:48 19°9511'25 -576 Jan 25 j 13:05 29°る18'19 0°-51'-12 -571 Jul 22 j 12:33 22°906'51 0°44'39 conjunction conjunction -576 Jan 25 j 13:03 29°**ප**18'17 0°51'12 -571 Jul 22 j 12:30 0°44'40 minimum elong minimum elong 22°906'50 -576 Jan 25 j 22:54 -571 Jul 22 j 10:20 max. Earth dist. 29°る24'12 6.00715 AU max. Earth dist. 22°905'39 6.37472 AU -576 Jan 28 j 10:32 25°900'49 0°≈ morning rise -571 Aug 04 j 19:25 -576 Feb 07 j 15:28 morning rise 2°≈26'36 -571 Aug 28 j 07:53 $0^{\circ}\Omega$ -571 Dec 03 j 19:10 12°**Ω**07'38 -576 Apr 05 j 02:43 retrograde 15°≈ -576 Jun 18 j 12:22 22°≈47'07 -570 Feb 01 j 21:24 7°Ω12'06 1°24'43 retrograde opposition -576 Aug 17 j 16:34 min. Earth dist. -570 Feb 02 j 06:53 7°**Ω**09'01 4.40746 AU opposition 17°≈45'43 -1°-37'-12 -576 Aug 17 j 00:28 direct -570 Apr 04 j 21:25 2°**Ω**08′50 min. Earth dist. 17°≈51'05 3.98462 AU -576 Sep 08 j 17:34 -570 Jul 17 j 23:23 15°**Ω** 15°R≈ -576 Oct 14 j 23:58 direct 12°≈52'09 evening set -570 Aug 10 j 03:49 19°**£**53′11 -576 Nov 19 j 21:22 15°≈ max. Earth dist. -570 Aug 22 j 01:59 22°**Ω**28′27 6.42381 AU -575 Feb 06 j 23:07 0°**)**€ evening set -575 Feb 17 j 00:12 2°**H**22'47 conjunction -570 Aug 23 j 04:58 22°Ω43'08 1°08'08 -570 Aug 23 j 04:56 22°**Ω**43'07 1°08'08 minimum elong -575 Mar 02 j 07:21 5°\ 34'00 -1°-11'-30 morning rise -570 Sep 05 j 03:06 25°**Ω**31'35 conjunction

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 30

2	ical year style is used: T		•	//		, ,	50
	-570 Sep 26 j 05:43	0° m)		minimum elong	-563 Mar 07 j 12:41	10°) 46′17	1°12'10
retrograde	-569 Jan 03 j 07:37	12° m) 23'32		max. Earth dist.	-563 Mar 09 j 04:22		5.98140 AU
opposition	-569 Mar 04 j 17:59	7° m) 30'44	1°45'49	morning rise	-563 Mar 21 j 00:13	13° ¥ 59'37	
min. Earth dist.	-569 Mar 05 j 19:06	7° m) 22'39		C	-563 Jun 06 j 19:29	0° Υ	
direct	-569 May 06 j 10:02	2° m) 28'25		retrograde	-563 Jul 31 j 01:57	4° Υ 26'00	
evening set	-569 Sep 10 j 04:48	20° m) 10'21			-563 Sep 24 j 00:59	30° R ₩	
max. Earth dist.	-569 Sep 21 j 04:20	22° m/34'37	6.40730 AU	opposition	-563 Sep 28 j 19:00	29°) 21'19	-1°-44'-49
	J	4		min. Earth dist.	-563 Sep 27 j 12:21	29°) 31'45	4.00521 AU
conjunction	-569 Sep 22 j 23:10	22° m 58'08	1°12'40	direct	-563 Nov 25 j 18:18	24° ¥ 25′23	
minimum elong	-569 Sep 22 j 23:11	22° m 58'08	1°12'40		-562 Jan 24 j 18:41	$0^{\circ}\mathbf{\Upsilon}$	
morning rise	-569 Oct 05 j 14:56	25° m) 44'45		evening set	-562 Mar 31 j 12:18	13° Ƴ 48'36	
morning not	-569 Oct 25 j 11:08	0° ⊽		evening sec	002 1.141 51 j 12.10	10 1 1000	
retrograde	-568 Feb 03 j 12:11	12° ≏ 48'59		conjunction	-562 Apr 14 j 03:55	17° Ƴ 00'40	-1°-1'-4
opposition	-568 Apr 04 j 07:15	7° £ 57'14	1°38'11	minimum elong	-562 Apr 14 j 03:58	17° Υ '00'42	1°01'04
min. Earth dist.	-568 Apr 05 j 15:54	7° - 46'50	4.37616 AU	max. Earth dist.	-562 Apr 16 j 08:22	17° Υ 31'28	6.04500 AU
direct	-568 Jun 05 j 21:28	2° £ 56'51	4.57010710	morning rise	-562 Apr 27 j 21:43	20° Υ 13'42	0.04300710
evening set	-568 Oct 10 j 00:46	20° ♀ 50'23		morning rise	-562 Jun 11 j 08:26	0°8	
max. Earth dist.	-568 Oct 20 j 17:49	23° ⊆ 14'03	6.32957 AU	retrograde	-562 Sep 04 j 14:40	9° 8 57'03	
max. Earm dist.	-308 Oct 20 j 17.49	23 = 14 03	0.32937 AU	min. Earth dist.	-562 Nov 01 j 19:34	5° 8 02'59	4.10009 AU
aamiumatiam	560 Oat 22: 15:45	23° ₽ 39'49	0°56'56			_	-1°-8'-53
conjunction minimum elong	-568 Oct 22 j 15:45		0°56'55	opposition	-562 Nov 03 j 03:12	4 3 32 12 30° ₹ Υ	-1 -6-33
_	-568 Oct 22 j 15:48		0 30 33	1	-562 Dec 23 j 12:33		
morning rise	-568 Nov 04 j 05:07	26° £ 28'41		direct	-562 Dec 31 j 16:03	29° Y 53'12	
	-568 Nov 20 j 05:14	0°M,			-561 Jan 08 j 21:05	0°B	
retrograde	-567 Mar 07 j 06:54	14°ML10'28	1000105		-561 Apr 20 j 03:27	15° 8	
opposition	-567 May 07 j 06:15	9°M.18'10	1°02'05	evening set	-561 May 07 j 05:09	18° 8 49'07	
min. Earth dist.	-567 May 08 j 14:31	9° ™ 07'54	4.27353 AU				
direct	-567 Jul 08 j 03:55	4° M ₂20'23		conjunction	-561 May 20 j 23:43	21° 8 57'17	0°-27'-58
	-567 Oct 06 j 14:52	15° M ₊		minimum elong	-561 May 20 j 23:46	21° 8 57'18	0°27'58
evening set	-567 Nov 10 j 13:11	22°M37'52		max. Earth dist.	-561 May 22 j 18:35	22° 8 21'43	6.16305 AU
max. Earth dist.	-567 Nov 21 j 13:49	25°M09'59	6.21062 AU	morning rise	-561 Jun 03 j 18:50	25° 8 05'24	
					-561 Jun 25 j 23:30	$\Pi^{\circ}0$	
conjunction	-567 Nov 23 j 04:21	25°M32'13	0°23'50	retrograde	-561 Oct 07 j 22:41	13° Ⅱ 44′06	
minimum elong	-567 Nov 23 j 04:22	25°M32'13	0°23'50	opposition	-561 Dec 06 j 12:30	8° Ⅱ 41'37	
morning rise	-567 Dec 05 j 19:40	28°M26'50		min. Earth dist.	-561 Dec 05 j 15:25	8° Ⅱ 48'45	4.22838 AU
	-567 Dec 12 j 14:55	0° ∡ ¹		direct	-560 Feb 04 j 07:04	3° Ⅱ 39'57	
retrograde	-566 Apr 11 j 02:34	17° ∡ 05'43		asc. node	-560 Feb 16 j 18:48	3° Ⅱ 55'07	
opposition	-566 Jun 11 j 00:56	12° ∡ 11'13	0°04'28	evening set	-560 Jun 10 j 08:12	22° Ⅱ 02'51	
min. Earth dist.	-566 Jun 11 j 21:01	12° ₮ 04'45	4.14564 AU				
desc. node	-566 Jul 09 j 00:25	8° ₰ 754'19		conjunction	-560 Jun 24 j 00:00	25° Ⅱ 04'16	0°13'13
direct	-566 Aug 10 j 16:29	7° ∡ 16′01		minimum elong	-560 Jun 23 j 23:59	25° Ⅱ 04'16	0°13'13
evening set	-566 Dec 13 j 13:18	26° ≯ 04'55		behind sun begin	-560 Jun 23 j 19:19	25° Ⅱ 01'41	
				behind sun end	-560 Jun 24 j 04:39	25° Ⅱ 06'50	
conjunction	-566 Dec 26 j 08:05	29° ₰ 06'03	0°-18'-19	max. Earth dist.	-560 Jun 24 j 21:51	25° Ⅱ 16′23	6.29180 AU
minimum elong	-566 Dec 26 j 08:04	29° ₰ 06'02	0°18'21	morning rise	-560 Jul 07 j 14:00	28° Ⅱ 04'38	
max. Earth dist.	-566 Dec 25 j 16:24	28° ∡ ¹56'47	6.08554 AU		-560 Jul 16 j 09:12	0°©	
	-566 Dec 30 j 03:10	0°ರ		retrograde	-560 Nov 07 j 10:54	15° © 44'03	
morning rise	-565 Jan 08 j 04:18	2° පි 08'13		opposition	-559 Jan 06 j 06:36	10°545'22	0°46'53
retrograde	-565 May 17 j 23:23	21° る 49'39		min. Earth dist.	-559 Jan 06 j 01:00	10°947'14	4.34648 AU
opposition	-565 Jul 17 j 12:42	16° ප 51'41	0°-58'-5	direct	-559 Mar 08 j 08:53	5° © 42'18	
min. Earth dist.	-565 Jul 17 j 14:12	16° ප 51'12	4.03407 AU	evening set	-559 Jul 13 j 15:44	23° © 38'13	
direct	-565 Sep 14 j 18:47	11° පි 58'12		844	,		
	-564 Jan 12 j 04:17	0° ≈		conjunction	-559 Jul 27 j 00:01	26°532'29	0°48'50
evening set	-564 Jan 17 j 12:24	1° ≈ 16'13		minimum elong	-559 Jul 26 j 23:59	26°932'27	0°48'50
				max. Earth dist.	-559 Jul 26 j 17:12	26°528'45	6.38997 AU
conjunction	-564 Jan 30 j 13:02	4° ≈ 23'47	0°-55'-26	morning rise	-559 Aug 09 j 05:41	29° © 25'18	0.50/// 110
minimum elong	-564 Jan 30 j 12:59	4°≈23'45	0°55'27	morning rise	-559 Aug 11 j 21:54	0°Ω	
max. Earth dist.	-564 Jan 31 j 01:19	4°≈31'10	5.99743 AU		-559 Nov 07 j 11:57	15° Ω	
morning rise	-564 Feb 12 j 16:42	7°≈33'02	J.J. 7 7 J 11 U	retrograde	-559 Dec 08 j 00:00	15 % 16° Ω 26'48	
morning 1150	-564 Mar 16 j 00:43	7 ≈33 02 15°≈		10110grade	-558 Jan 07 j 10:16	10 8ℓ 20 48	
retrograde	-564 Jun 23 j 17:19	13 ≈ 27°≈58'04		opposition	-558 Feb 06 j 03:14	13 κδι 11° Ω 31'44	1°29'04
-	-		-1°-41'-6	min. Earth dist.	-	$11^{\circ} \Omega 27'36$	4.41893 AU
opposition	-564 Aug 22 j 21:07	22°≈56'10			-558 Feb 06 j 15:55		4.41093 AU
min. Earth dist.	-564 Aug 22 j 01:44	23°≈02'39	3.97993 AU	direct	-558 Apr 09 j 08:08	6° Ω 28'29 15° Ω	
direct	-564 Oct 20 j 01:01	18° ≈ 02'28		avanina aat	-558 Jun 30 j 03:18		
avanin+	-563 Jan 20 j 06:47	0°) 7° ¥ 24!25		evening set	-558 Aug 14 j 10:40	24° Ω 09'54	C 42040 ATT
evening set	-563 Feb 22 j 04:19	7° ∺ 34'35		max. Earth dist.	-558 Aug 26 j 05:27	26° Ω 43'11	6.43040 AU
agniunction	562 Mar 07: 12:41	100¥46117	10 12! 10	agniumation	550 Ama 27: 10:40	260 0 50100	1000152
conjunction	-563 Mar 07 j 12:41	10°) 46′17	-1 -12-10	conjunction	-558 Aug 27 j 10:48	26° Ω 59'08	1 0932

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -558 in astronomical counting style is the year 559 BCE in historical counting style. 26°Ω59'07 1°09'51 -558 Aug 27 j 10:46 opposition -552 Aug 28 i 03:29 28°≈12'22 -1°-44'-10 minimum elong 23°≈18'25 -558 Sep 09 j 07:42 29°**Ω**46′52 direct -552 Oct 25 j 05:54 morning rise -558 Sep 10 j 08:01 0°m -552 Dec 30 j 06:52 0°₩ -557 Jan 07 j 10:03 16° m) 37'24 -551 Feb 27 j 11:20 12°\£52'37 retrograde evening set -557 Mar 08 j 23:18 11° Mp 44'48 opposition 1°46'22 -557 Mar 10 j 01:26 -551 Mar 12 j 20:57 16°**)** €04'53 -1°-12'-12 min. Earth dist. 11° **m** 36'25 4.42631 AU conjunction -551 Mar 12 j 20:58 direct -557 May 10 j 15:54 6° m 42'39 minimum elong 16°**¥**04'53 1°12'13 evening set -551 Mar 14 j 16:54 -557 Sep 14 j 08:30 24° Mp 24'03max. Earth dist. 16°**₩**31'11 5.98155 AU max. Earth dist. -557 Sep 25 j 05:44 26° Mp 47'16 6.40317 AU morning rise -551 Mar 26 j 09:41 19°**)** 18′43 $0^{\circ}\Upsilon$ -551 May 13 j 08:59 9°**Y**42'35 conjunction -557 Sep 27 j 02:05 27° m 11'41 1°11'38 retrograde -551 Aug 05 j 07:04 -557 Sep 27 j 02:06 -551 Oct 03 j 22:51 minimum elong 27° Mp 11'41 1°11'38 opposition 4°**Υ**37'38 -1°-41'-44 -557 Oct 09 j 17:13 29° m 58'13 -551 Oct 02 j 14:11 4°Υ48'45 4.01247 AU morning rise min. Earth dist. -557 Oct 09 j 20:30 0∘**⊽** -551 Nov 17 j 11:32 30°**₹**₩ retrograde -556 Feb 07 j 19:32 17°**2**05'17 direct -551 Nov 30 j 21:30 29°**)**41'17 opposition -556 Apr 08 j 15:20 12°**♀**13'35 1°34'49 -551 Dec 14 j 09:35 $0^{\circ}\Upsilon$ min. Earth dist. -556 Apr 10 j 01:58 12°**♀**02'34 4.36650 AU evening set -550 Apr 05 j 19:54 19°**Y**′02'00 direct -556 Jun 10 j 05:37 7°**£**13'27 evening set -556 Oct 14 j 04:57 25°**♀**09'15 conjunction -550 Apr 19 j 12:10 22°**Y**13'47 0°-57'-20 max. Earth dist. -556 Oct 24 j 20:00 27°**♀**32'19 6.31500 AU minimum elong -550 Apr 19 j 12:13 22° Y 13'49 0°57'20 max. Earth dist. -550 Apr 21 j 16:05 22°Y44'09 6.05835 AU conjunction -556 Oct 26 i 19:43 27°**♀**59'11 0°53'20 morning rise -550 May 03 i 06:39 25°**Y**26′25 minimum elong -556 Oct 26 i 19:46 27°**♀**59'12 0°53'20 -550 May 23 i 07:21 0°8 -556 Nov 04 j 18:26 0°M -550 Sep 06 i 01:58 15°8 -556 Nov 08 i 09:13 0°M48'40 retrograde -550 Sep 09 j 11:32 15°**8**01'10 morning rise -555 Jan 21 i 03:04 15°M₀ -550 Sep 12 j 21:07 15°R₩ -555 Mar 11 j 19:47 min. Earth dist. -550 Nov 06 j 17:48 10°806'56 4.11755 AU retrograde 18°M,37'30 -555 May 01 j 21:30 -550 Nov 08 j 00:48 9°**8**56'21 -1°-1'-21 15°RM. opposition -555 May 11 j 19:37 -549 Jan 05 j 17:51 4°856'50 opposition 13°M44'58 0°55'19 direct -555 May 13 j 03:02 min. Earth dist. -549 Apr 01 j 11:49 15°8 13°M34'56 4.25479 AU -555 Jul 12 j 13:16 8°M47'25 -549 May 12 j 08:02 23°**8**47'34 direct evening set -555 Sep 17 j 03:03 15°M 26°**8**54'50 0°-22'-12 -555 Nov 14 j 21:41 -549 May 26 j 02:41 evening set 27°M09'56 conjunction -555 Nov 26 j 01:26 -549 May 26 j 02:43 max. Earth dist. 26°**8**54'51 0°22'11 29°M44'32 6.18936 AU minimum elong -549 May 27 j 20:53 27°818'46 6.18303 AU max. Earth dist. -549 Jun 08 j 21:13 0°**I**101′49 -555 Nov 27 j 13:21 0°**₹**05'20 0°18'26 conjunction morning rise -555 Nov 27 j 13:22 0°**∡**105'21 0°18'26 -549 Jun 08 j 17:58 $\Pi^{\circ}0$ minimum elong -555 Nov 27 j 04:07 0°**√** retrograde -549 Oct 12 j 12:39 18°**Ⅲ**30'31 morning rise -555 Dec 10 j 05:05 3°**х**¹01′05 min. Earth dist. -549 Dec 10 j 07:35 13°**I**35′04 4.24857 AU retrograde -554 Apr 16 j 02:08 21°**х** 50′07 opposition -549 Dec 11 j 03:04 13°**Ⅲ**28'31 0°-2'-21 desc. node -554 May 20 j 16:59 20°**₹**01'41 asc. node -549 Dec 26 j 13:19 11°**Ⅲ**27'27 -554 Jun 15 j 21:48 16°**₹**55'16 0°-4'-11 -548 Feb 09 j 02:31 8°**Ⅲ**26'33 opposition direct min. Earth dist. -554 Jun 16 j 17:02 16°**₹**49'04 4.12332 AU -548 Jun 15 j 04:24 26°**Ⅱ**44'14 evening set -554 Aug 15 j 08:44 12°**尽**00'21 direct -554 Dec 14 j 06:40 0°₹ conjunction -548 Jun 28 j 19:09 29°II44'27 0°18'53 -548 Jun 28 j 19:08 29°**Ⅱ**44'27 evening set -554 Dec 18 i 05:25 0°る55'44 minimum elong 0°18'53 -548 Jun 29 i 11:52 29°**Д**53'41 6.31036 AU max. Earth dist. -554 Dec 30 j 11:08 3°₹49'57 6.06415 AU max. Earth dist. -548 Jun 29 i 23:17 0ಂತಾ -554 Dec 31 i 00:52 3°**ප**58'07 0°-24'-1 conjunction morning rise -548 Jul 12 i 08:14 2°5643'36 minimum elong -554 Dec 31 i 00:51 3°₹58'06 0°24'01 retrograde -548 Nov 11 i 19:37 20°915'27 morning rise -553 Jan 12 j 22:16 7°**ට**01'41 opposition -547 Jan 10 j 16:19 15°917'17 0°54'06 -553 May 23 j 03:45 26°る53'23 min. Earth dist. -547 Jan 10 j 13:43 15°9518'08 4.36203 AU retrograde -553 Jul 22 j 16:08 21°る54'51 -1°-5'-42 direct -547 Mar 12 j 23:36 10°9514'02 opposition -553 Jul 22 j 13:48 evening set min. Earth dist. 21°る55'37 4.01580 AU -547 Jul 18 j 05:10 28°906'26 -553 Sep 19 j 16:00 direct 17°る01'27 -547 Jul 26 j 22:37 $0^{\circ}\Omega$ -553 Dec 25 j 23:15 0°≈ -552 Jan 22 j 13:17 6°≈25'11 conjunction -547 Jul 31 j 12:26 0°Ω59'46 0°52'50 evening set minimum elong -547 Jul 31 j 12:23 0°**Ω**59'45 0°52'51 -552 Feb 04 j 15:07 9°≈33'52 0°-59'-12 -547 Jul 31 j 03:09 0°**£**54'43 6.40128 AU conjunction max. Earth dist. -552 Feb 04 j 15:05 0°59'13 -547 Aug 13 j 16:37 3°**Ω**51'34 minimum elong 9°≈33'51 morning rise -552 Feb 05 j 08:42 -547 Oct 09 j 07:00 15°**Ω** max. Earth dist. 9°**≈**44'28 5.98405 AU -552 Feb 17 j 19:52 morning rise 12°**≈**44'13 retrograde -547 Dec 12 j 05:31 20°**Ω**49'25 -552 Feb 27 j 08:43 15°≈ opposition -546 Feb 10 j 11:01 15°**Ω**54'48 1°33'08 -552 May 13 j 23:55 0°**)**€ min. Earth dist. -546 Feb 11 j 01:19 15°**Ω**50'10 4.42546 AU retrograde -552 Jun 29 j 02:52 3°**₩**14'49 -546 Feb 17 j 12:41 15°R€ -552 Aug 14 j 11:25 -546 Apr 13 j 17:54 10°**Ω**51'41 30°R≈ direct

min. Earth dist.

-552 Aug 27 j 06:14

28°≈19'30 3.97302 AU

-546 Jun 07 j 14:31

15°**Ω**

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -546 in astronomical counting style is the year 547 BCE in historical counting style. 28°**Ω**31'51 -546 Aug 18 j 19:53 minimum elong -540 Feb 09 i 20:13 14°≈51'14 1°02'40 evening set -546 Aug 25 j 14:38 -540 Feb 10 j 10:47 0°m 15°≈ max. Earth dist. max. Earth dist. -546 Aug 30 j 09:18 1° Mp 02'22 6.43149 AU -540 Feb 10 j 18:48 15°≈04'49 18°**≈**02'18 -540 Feb 23 j 02:11 morning rise -540 Apr 17 j 03:39 0°**∀** conjunction -546 Aug 31 j 18:45 1°m/20'35 1°11'19 -546 Aug 31 j 18:44 1° Mp 20'34 1°11'19 -540 Jul 04 j 11:15 8°\ 34'21 minimum elong retrograde -546 Sep 13 j 14:46 4° m 07'53 3°**¥**39'37 morning rise min. Earth dist. -540 Sep 01 j 10:16 -545 Jan 11 j 19:07 20° m 58'59 -540 Sep 02 j 10:33 retrograde opposition 3°**₭**31'27 -1°-46'-26 opposition -545 Mar 13 j 08:31 16° Mp 06'40 1°46'29 -540 Oct 01 j 19:10 30°R≈ min. Earth dist. -545 Mar 14 j 13:26 15° **m** 57'24 4.42203 AU direct -540 Oct 30 j 10:29 28°≈37'18 direct -545 May 15 j 02:49 11°Mp04'43 -540 Nov 28 j 00:46 0°**∀** -545 Sep 18 j 16:08 -539 Mar 04 j 18:12 18°**)** 10′03 evening set 28° Mp 47'24 evening set -545 Sep 24 j 04:31 0∘**⊽** max. Earth dist. -545 Sep 29 j 11:30 1°**≏**09'56 6.39375 AU conjunction -539 Mar 18 j 04:42 21°\(\dagger22'18\) -1°-11'-43 minimum elong -539 Mar 18 j 04:43 21°**¥**22′19 1°11'44 conjunction -545 Oct 01 j 09:14 1°**≙**35'10 1°10'13 max. Earth dist. -539 Mar 20 j 02:13 21°**)** 49′29 minimum elong -545 Oct 01 j 09:16 1°**△**35'10 1°10'13 morning rise -539 Mar 31 j 18:27 24°**)**€36'07

5.97954 AU 3.97561 AU 5.99060 AU morning rise -545 Oct 13 j 23:51 4°**£**21'53 -539 Apr 24 j 02:06 $0^{\circ}\Upsilon$ retrograde -544 Feb 12 j 07:16 21°**♀**33'37 retrograde -539 Aug 10 j 07:37 14°**Y**54'06 opposition -544 Apr 13 j 04:41 16°**≏**41'55 1°30'49 min. Earth dist. -539 Oct 07 j 14:57 10°**Y**00′16 4.02689 AU min. Earth dist. -544 Apr 14 j 14:52 16°**♀**31'02 4.35259 AU opposition -539 Oct 09 j 00:13 9°**Y**48'55 -1°-37'-56 direct -544 Jun 14 i 15:53 11°**£**42'08 direct -539 Dec 06 i 01:03 4°Υ'52'06 evening set -544 Oct 18 i 14:25 29°**-**41'31 evening set -538 Apr 11 j 00:21 24° Y 08' 05 -544 Oct 19 i 23:24 0°M max. Earth dist. -544 Oct 29 j 06:39 2°ML05'49 6.29774 AU conjunction -538 Apr 24 j 17:22 27°**Ƴ**19'19 0°-53'-17 -538 Apr 24 j 17:25 27°**Y**19′20 0°53'19 minimum elong -544 Oct 31 j 05:08 2°MJ32'06 0°49'15 max. Earth dist. -538 Apr 26 j 22:06 27°**Y**′50′01 6.07687 AU conjunction -544 Oct 31 j 05:10 2°MJ32'07 0°49'15 -538 May 06 j 06:00 0°8 minimum elong -544 Nov 12 j 18:43 5°M22'22 -538 May 08 j 11:59 0°831'11 morning rise morning rise -538 Jul 18 j 17:21 -544 Dec 28 j 11:01 15°M 15°8 -538 Sep 14 j 05:43 -543 Mar 16 j 17:16 19°**8**55'53 retrograde 23°M-19'21 retrograde -543 May 16 j 15:46 -538 Nov 11 j 17:00 18°M26'40 0°47'47 15°₹**8** opposition -543 May 17 j 23:02 -538 Nov 12 j 18:21 min. Earth dist. 18°M16'41 4.23514 AU opposition 14°**8**51'23 0°-53'-40 -538 Nov 11 j 12:52 -543 Jun 15 j 13:29 min. Earth dist. 15°**8**01'25 4.13798 AU 15°RM -543 Jul 17 j 06:11 -537 Jan 10 j 15:46 9°**8**51'28 direct 13°M29'33 direct -543 Aug 17 j 16:45 -537 Mar 10 j 10:53 15°8 15°M -543 Nov 10 j 23:36 28°**8**36'28 0°**√** evening set -537 May 17 j 06:48 evening set -543 Nov 19 j 12:06 1°×757'09 -537 May 23 j 11:10 Π °0 max. Earth dist. -543 Nov 30 j 17:43 4°**∡**°33'34 6.16914 AU conjunction -537 May 31 j 01:05 1°II42'44 0°-16'-29 conjunction -543 Dec 02 j 04:07 4°**₹**53'35 0°12'35 minimum elong -537 May 31 j 01:07 1°**II**42'44 0°16'30 -543 Dec 02 j 04:08 4°**₹**53'35 0°12'34 max. Earth dist. -537 Jun 01 j 15:06 2°**Ⅱ**04'11 6.20354 AU minimum elong -543 Dec 01 j 22:53 4°**х** 50'33 -537 Jun 13 j 19:17 4°**Ⅱ**48'37 behind sun begin morning rise -543 Dec 02 j 09:23 4°**∡**¹56'38 -537 Oct 16 j 22:12 23°**Ⅱ**07'54 behind sun end retrograde -543 Dec 14 j 20:37 7°**х** 50′30 -537 Nov 05 j 18:38 22°**II**29'00 morning rise asc. node -542 Mar 29 j 19:03 -537 Dec 15 i 13:54 18°**II**06'22 0°06'04 desc. node 26°**х** 02′25 opposition -542 Apr 21 i 05:07 -537 Dec 14 j 20:37 retrograde 26°**х** 49′25 min. Earth dist. 18°**Ⅱ**12'11 4.26736 AU 13°**Ⅱ**04'05 opposition -542 Jun 21 i 00:45 21°**x** 54'08 0°-13'-22 direct -536 Feb 13 i 17:49 min. Earth dist. -542 Jun 21 j 16:15 21°**₹**'49'07 4.10439 AU -536 Jun 13 j 22:25 0ಂತಾ direct -542 Aug 20 j 05:15 16°**₹**¹59'36 -536 Jun 19 j 20:21 1°9517'20 evening set -542 Nov 27 j 01:19 0°ਰ -542 Dec 23 j 03:04 6°**ප**00'11 -536 Jul 03 j 10:20 4°916'32 0°24'15 evening set conjunction -536 Jul 03 j 10:18 4°⊊16'31 0°24'16 minimum elong -536 Jul 03 j 23:38 conjunction -541 Jan 04 j 23:21 9°る03'35 0°-29'-50 max. Earth dist. 4°**5**23'52 6.32607 AU -541 Jan 04 j 23:19 -536 Jul 16 j 22:10 minimum elong 9°**る**03'34 0°29'51 morning rise 7°9514'32 -536 Nov 16 j 02:03 -541 Jan 04 j 14:55 max. Earth dist. 8°**る**58'34 6.04845 AU retrograde 24°9540'17 -541 Jan 17 j 21:35 morning rise 12°る08'16 opposition -535 Jan 14 j 23:20 19°5642'41 1°00'47 -541 Apr 21 j 08:21 min. Earth dist. -535 Jan 14 j 23:27 19°**5**642'39 4.37364 AU 0°≈ -541 May 28 j 13:44 2°≈07'50 direct -535 Mar 17 j 10:20 14°939'24 retrograde -541 Jul 04 j 20:49 30°R₹ -535 Jul 11 j 00:16 $0^{\circ}\Omega$ -541 Jul 27 j 23:46 27°**る**08'46 -1°-13'-9 -535 Jul 22 j 16:08 opposition evening set 2°**£**29'36 min. Earth dist. -541 Jul 27 j 18:58 27°**る**10'21 4.00520 AU direct -541 Sep 24 j 20:44 22°**る**15'29 conjunction -535 Aug 04 j 22:07 5°**Ω**22'11 0°56'27 -541 Dec 05 j 21:39 0°≈ minimum elong -535 Aug 04 j 22:04 5°**Ω**22'09 0°56'26 evening set -540 Jan 27 j 17:23 11°≈41'54 max. Earth dist. -535 Aug 04 j 07:27 5°**Ω**14'12 6.40775 AU morning rise -535 Aug 18 j 01:15 8°**Ω**13'16 -540 Feb 09 j 20:15 14°≈51'15 -1°-2'-40 -535 Sep 19 j 15:17 15°**Ω** conjunction

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -535 in astronomical counting style is the year 536 BCE in historical counting style. 25°**Ω**09'11 retrograde -535 Dec 16 j 11:52 -529 Nov 08 i 13:49 0°≈ -534 Feb 14 j 17:36 20°Ω14'57 1°36'38 -528 Jan 24 j 20:16 15°≈ opposition min. Earth dist. -534 Feb 15 j 10:53 20°**Ω**09'20 4.42677 AU -528 Feb 01 j 20:37 16°≈54'26 evening set -534 Apr 18 j 02:47 15°**Ω**11'52 direct -534 Aug 09 j 17:02 -528 Feb 15 j 00:22 20°≈04'13 -1°-5'-35 0° m conjunction -534 Aug 23 j 03:52 2° m 52'23 -528 Feb 15 j 00:20 1°05'36 evening set minimum elong 20°≈04'12 max. Earth dist. -534 Sep 03 j 15:18 6.42751 AU -528 Feb 16 j 01:54 5.97863 AU 5° M 21'59 max. Earth dist. 20°≈19'36 23°≈15'46 morning rise -528 Feb 28 j 07:23 0°**)**€ conjunction -534 Sep 05 j 01:59 5° m 40'54 1°12'22 -528 Mar 28 j 08:51 minimum elong -534 Sep 05 j 01:58 5° Mp 40'53 1°12'22 retrograde -528 Jul 09 j 16:01 13°**)** 47′44 -534 Sep 17 j 20:57 morning rise 8°m/27'59 opposition -528 Sep 07 j 14:55 8°**)** 44′22 -1°-47'-49 -533 Jan 16 j 02:53 25° m/21'14 -528 Sep 06 j 12:47 retrograde min. Earth dist. 8°**)** 53'11 3.98032 AU -533 Mar 17 j 17:55 -528 Nov 04 j 14:07 opposition 20°m/29'07 1°46'01 direct 3°**)** 49′54 min. Earth dist. -533 Mar 18 j 23:25 20° m 19'40 4.41324 AU evening set -527 Mar 09 j 23:07 23°**¥**20'51 direct -533 May 19 j 10:59 15° m 27'27 -533 Sep 08 j 04:03 0∘**⊽** conjunction -527 Mar 23 j 10:48 26°\(\dagger)33'09 -1°-10'-41 evening set -533 Sep 23 j 00:09 3°**£**12'34 minimum elong -527 Mar 23 j 10:49 26°\dagger33'10 1°10'41 max. Earth dist. -533 Oct 03 j 17:34 5°**£**34'34 6.38080 AU max. Earth dist. -527 Mar 25 j 11:29 27°**₭**02'08 6.00051 AU morning rise -527 Apr 06 j 01:17 29°\ 46'51 conjunction -533 Oct 05 j 16:37 6°**₽**00'36 1°08'23 -527 Apr 06 j 23:36 $0^{\circ}\Upsilon$ minimum elong -533 Oct 05 j 16:38 6°**♀**00'37 1°08'22 retrograde -527 Aug 15 j 08:08 19°Y58'38 morning rise -533 Oct 18 j 07:00 8°**-**47'44 opposition -527 Oct 13 j 22:58 14°Y53'26 -1°-33'-30 retrograde -532 Feb 16 i 23:12 26°**♀**05'15 min. Earth dist. -527 Oct 12 j 14:13 15°**Y**04'36 4.04086 AU opposition -532 Apr 17 j 19:47 21°**♀**13'31 1°26'14 direct -527 Dec 11 i 01:57 9°Υ56'13 min. Earth dist. -532 Apr 19 i 06:48 21°**♀**02'22 4.33622 AU evening set -526 Apr 16 j 03:03 29°Y08'06 direct -532 Jun 19 j 05:28 16°**♀**14'05 -526 Apr 19 j 20:55 0°8 -532 Oct 03 j 14:13 oom. -532 Oct 23 j 01:10 -526 Apr 29 j 20:27 2°**8**18'48 0°-48'-57 evening set conjunction max. Earth dist. -532 Nov 02 j 18:44 6.27946 AU -526 Apr 29 j 20:30 0°48'57 6°M43'07 minimum elong 2°**8**18'49 -526 May 01 j 23:07 6.09356 AU 2°848'09 max. Earth dist. -532 Nov 04 j 15:59 -526 May 13 j 15:32 5°**8**30'04 conjunction 7°ML08'48 0°44'48 morning rise -532 Nov 04 j 16:01 0°44'48 -526 Jun 26 j 08:59 minimum elong 7°ML08'49 15°8 9°M59'54 -532 Nov 17 j 05:46 -526 Sep 18 j 20:41 24°**8**45'46 morning rise retrograde -526 Nov 16 j 05:32 -532 Dec 09 j 21:13 19°**8**51'20 4.15566 AU min. Earth dist. 15°M -531 Mar 21 j 14:10 -526 Nov 17 j 10:10 19°**8**41'35 0°-45'-45 retrograde 28°M05'07 opposition -531 May 21 j 13:22 23°M12'08 0°39'49 -525 Jan 01 j 19:56 opposition 15°₹**႘** 23°ML03'03 4.21626 AU -531 May 22 j 17:48 -525 Jan 15 j 10:52 14°**8**41'17 min. Earth dist. direct direct -531 Jul 21 j 22:22 18°M15'27 -525 Jan 29 j 04:49 15°8 -531 Oct 24 j 18:06 0°**√** -525 May 06 j 23:10 Π °0 evening set -531 Nov 24 j 04:05 6°**х¹**47'36 evening set -525 May 22 j 04:27 3°**Ⅱ**21'55 -531 Dec 06 j 20:30 9°**х** 44′56 0°06′36 conjunction -525 Jun 04 j 22:31 6°**I**27'19 0°-10'-44 conjunction -531 Dec 06 j 20:31 9°**∡**¹44'56 0°06'35 -525 Jun 04 j 22:32 6°**Ⅱ**27'19 0°10'45 minimum elong minimum elong behind sun begin -531 Dec 06 j 13:00 9°**∡**¹40'34 behind sun begin -525 Jun 04 j 16:14 6°**Ⅲ**23'47 behind sun end -531 Dec 07 j 04:01 9°**√**49'18 behind sun end -525 Jun 05 j 04:50 6°**Ⅲ**30'51 -531 Dec 05 i 13:58 9°**₹**27'05 6.15140 AU -525 Jun 06 i 09:14 6°**Д**46'51 6.22096 AU max. Earth dist. max. Earth dist. -531 Dec 19 i 13:37 -525 Jun 18 j 16:03 9°**Ⅲ**32'11 morning rise 12°**∡** 42'53 morning rise -530 Feb 05 i 19:17 23°**х** 10′38 25°**Ⅱ**45'09 desc. node asc. node -525 Sep 15 j 22:02 -530 Mar 22 j 16:50 27°**Ⅱ**43'27 0°₹ retrograde -525 Oct 21 i 09:26 -530 Apr 26 j 10:37 1°る50'28 min. Earth dist. -525 Dec 19 j 10:07 22°II47'16 4.28293 AU retrograde -530 May 31 i 07:28 30°R*x*7 opposition -525 Dec 20 j 00:22 22°**Ⅱ**42'30 0°14'23 -530 Jun 26 j 04:36 26° **7**54'40 0°-22'-31 direct -524 Feb 18 j 09:09 17°**Ⅱ**40′02 opposition min. Earth dist. -530 Jun 26 j 17:56 26°**₹**′50'21 4.08910 AU -524 May 28 j 01:19 0ಂತಾ -530 Aug 25 j 05:29 22°**х** 00′24 direct evening set -524 Jun 24 j 12:33 5°950'04 -530 Nov 07 j 15:38 0°ਰ evening set -530 Dec 28 j 01:01 11°る04'32 conjunction -524 Jul 08 j 01:35 8°9548'22 0°29'29 minimum elong -524 Jul 08 j 01:33 8°9548'21 0°29'30 -529 Jan 09 j 22:06 14°る08'47 0°-35'-27 max. Earth dist. -524 Jul 08 j 10:26 8°953'14 6.33854 AU conjunction -529 Jan 09 j 22:03 14°**පි**08'46 0°35'28 morning rise -524 Jul 21 j 12:24 11°9545'25 minimum elong 14°**る**06'24 -529 Jan 09 j 18:06 6.03696 AU -524 Nov 20 j 08:32 max. Earth dist. retrograde 29°906'14 -529 Jan 22 j 21:19 17°る14'22 -523 Jan 19 j 06:57 morning rise opposition 24°909'10 1°07'11 -529 Mar 22 j 19:47 0°≈ min. Earth dist. -523 Jan 19 j 09:19 24°9508'23 4.38241 AU retrograde -529 Jun 02 j 21:06 7°≈19'41 direct -523 Mar 21 j 20:27 19°905'50 opposition -529 Aug 02 j 06:15 2°≈20'04 -1°-19'-58 -523 Jun 23 j 20:39 0° Ω min. Earth dist. -529 Aug 01 j 21:52 2°≈22'50 3.99888 AU evening set -523 Jul 27 j 03:43 6°**Ω**54'46 -529 Aug 20 j 16:28 30°Ŗる direct -529 Sep 29 j 22:57 27°る26'48 -523 Aug 09 j 08:40 9°**Ω**46'44 0°59'47 conjunction

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -523 in astronomical counting style is the year 524 BCE in historical counting style. 9°**Ω**46'42 0°59'47 -517 Jan 14 j 18:03 minimum elong -523 Aug 09 i 08:37 max. Earth dist. 19°る08'47 6.02928 AU max. Earth dist. -523 Aug 08 i 15:34 9°Ω37'26 6.41216 AU -517 Jan 27 j 19:02 22°る15'36 morning rise -523 Aug 22 j 10:30 12°**Ω**37'09 -517 Mar 02 j 15:09 morning rise 0°≈ 12°**≈**25'09 -523 Sep 02 j 13:16 15°**Ω** -517 Jun 08 j 00:53 retrograde -523 Dec 20 j 19:19 29°**Ω**31'53 -517 Aug 07 j 09:17 7°≈24'55 retrograde opposition -1°-25'-56 -522 Feb 19 j 01:40 -517 Aug 06 j 22:24 24°**Ω**38'07 1°39'40 opposition min. Earth dist. 7°≈28'32 3.99539 AU -522 Feb 19 j 20:54 4.42680 AU -517 Oct 04 j 23:35 2°≈31'32 min. Earth dist. 24°**Ω**31'53 direct -522 Apr 22 j 12:26 -516 Jan 07 j 16:29 direct 19°**Ω**35'15 15°≈ -522 Jul 23 j 10:31 -516 Feb 06 j 20:43 21°≈59'36 0°m evening set evening set -522 Aug 27 j 13:02 7° Mp 16'20 max. Earth dist. -522 Sep 07 j 20:04 9° m 43'53 6.42302 AU conjunction -516 Feb 20 j 01:36 25°≈09'48 -1°-7'-55 -516 Feb 20 j 01:34 1°07'56 minimum elong 25°≈09'47 -522 Sep 09 j 10:05 10° m 04'38 1°13'01 -516 Feb 21 j 07:39 5.97958 AU conjunction max. Earth dist. 25°**≈**27'53 -522 Sep 09 j 10:05 minimum elong 10° M 04'38 1°13'01 morning rise -516 Mar 04 j 09:30 28°**≈**21'42 -522 Sep 22 j 04:22 morning rise 12° Mp 51'36 -516 Mar 11 j 07:09 0°**)**€ retrograde -521 Jan 20 j 14:03 29° Mp 47'17 retrograde -516 Jul 14 j 18:27 18°**¥**52'43 opposition -521 Mar 22 j 05:04 24° m 55'21 1°44'59 opposition -516 Sep 12 j 15:31 13°**)** 48′59 -1°-48'-19 min. Earth dist. -521 Mar 23 j 11:54 24° m/45'29 4.40486 AU min. Earth dist. -516 Sep 11 j 12:50 13°**¥**58′00 3.98579 AU direct -521 May 23 j 21:54 19° m 53'59 direct -516 Nov 09 j 14:27 8°**)** 54'13 -521 Aug 21 j 16:55 0∘**⊽** evening set -515 Mar 15 j 00:41 28°¥23'18 evening set -521 Sep 27 j 09:07 7°**£**41'15 -515 Mar 21 j 20:06 $0^{\circ}\Upsilon$ max. Earth dist. -521 Oct 08 i 03:18 10°**♀**04'03 6.36936 AU conjunction -515 Mar 28 i 13:09 1°**Y**35'34 -1°-9'-10 conjunction -521 Oct 10 i 01:17 10°**£**29'35 1°06'10 minimum elong -515 Mar 28 j 13:11 1°**Y**35'35 1°09'10 minimum elong -521 Oct 10 j 01:19 10°**£**29'36 1°06'10 max. Earth dist. -515 Mar 30 j 13:42 2°**Υ**04'21 6.00974 AU morning rise -521 Oct 22 j 15:11 13°**£**17'02 morning rise -515 Apr 11 j 04:39 4°**Y**49'13 -520 Jan 31 j 21:20 retrograde -515 Aug 20 j 03:02 24°Y55'09 oom. -520 Feb 21 j 13:45 0°MJ39'47 min. Earth dist. -515 Oct 17 j 08:58 20°Υ01'15 4.05294 AU retrograde -520 Mar 13 j 07:44 -515 Oct 18 j 18:05 19°**Y**49'57 -1°-28'-34 30°R <u>Ω</u> opposition 14°**Y**52'17 -520 Apr 22 j 11:43 25° **△**48'00 1°21'07 -515 Dec 15 j 22:31 opposition direct -520 Apr 23 j 21:20 -514 Apr 03 j 09:32 0°8 min. Earth dist. 25°**£**37'18 4.32262 AU -520 Jun 23 j 17:54 20°**£**49'01 -514 Apr 21 j 02:50 4°801'00 direct evening set -520 Sep 15 j 12:47 $0^{\circ}M$ -520 Oct 27 j 12:21 8°M55'19 -514 May 04 j 20:45 7°811'17 0°-44'-24 evening set conjunction -520 Nov 07 j 07:09 -514 May 04 j 20:48 11° M $_{2}2'15$ 7°**8**11'19 0°44'24 max. Earth dist. 6.26486 AU minimum elong -514 May 06 j 21:37 max. Earth dist. 7°**8**39'30 6.10764 AU -520 Nov 09 j 03:01 11°M47'15 0°40'07 -514 May 18 j 15:57 10°**8**21'58 conjunction morning rise minimum elong -520 Nov 09 j 03:03 11°**M**47'16 0°40'06 -514 Jun 08 j 07:02 15°8 morning rise -520 Nov 21 j 17:07 14°M39'04 retrograde -514 Sep 23 j 11:43 29°**8**29'55 -520 Nov 23 j 06:06 15°M opposition -514 Nov 21 j 23:44 24°826'04 0°-37'-47 -519 Feb 10 j 16:36 0°**√** min. Earth dist. -514 Nov 20 j 21:43 24°834'55 4.17017 AU -519 Mar 26 j 12:33 2°**х** 51′24 direct -513 Jan 20 j 04:53 19°**8**25'24 retrograde -519 May 10 j 00:59 -513 Apr 19 j 09:07 Π °0 30°RM -519 May 26 j 11:06 27°ML58'04 0°31'40 -513 May 27 j 00:14 8°**Ⅲ**02'47 opposition evening set min. Earth dist. -519 May 27 j 14:09 27°M49'24 4.20149 AU -519 Jul 26 i 17:09 23°ML01'44 -513 Jun 09 j 18:02 11°**II**07'28 0°-5'-4 direct conjunction -519 Oct 05 i 00:16 -513 Jun 09 j 18:02 11°**II**07'28 0°05'05 0°×7 minimum elong -519 Nov 28 j 19:04 -513 Jun 09 i 09:57 11°**Ⅱ**02'57 evening set 11°**∡**36'54 behind sun begin -519 Dec 10 j 09:06 -513 Jun 10 j 02:08 11°**Ⅱ**11'59 max. Earth dist. 14°**х** 19′16 6.13788 AU behind sun end max. Earth dist. -513 Jun 11 i 02:05 11°**Ⅱ**25'26 6.23495 AU conjunction -519 Dec 11 i 11:59 14°**₹**′35'00 0°00'37 morning rise -513 Jun 23 i 11:00 14°**Ⅱ**11'30 -519 Dec 11 i 11:59 14°**₹**35'00 0°00'37 asc. node -513 Jul 27 j 22:59 21°II33'56 minimum elong behind sun begin -519 Dec 11 j 03:58 14°**✗**30′20 -513 Sep 17 j 14:20 0ಂತಾ -519 Dec 11 i 19:59 14°**₹**³39'40 -513 Oct 25 j 17:20 behind sun end retrograde 2°9515'58 -519 Dec 17 j 00:42 15°**₹**52'44 -513 Dec 02 j 16:56 desc. node 30°RⅡ -519 Dec 24 j 05:40 17°**∡**33'47 morning rise opposition -513 Dec 24 j 09:45 27°II15'31 0°22'26 -518 Feb 20 j 23:06 0°₹ min. Earth dist. -513 Dec 23 j 20:49 27°**Ⅲ**19'51 4.29542 AU -518 May 01 j 12:01 6°る48'22 direct -512 Feb 22 j 21:09 22°**Ⅲ**12'52 retrograde -518 Jul 01 j 06:28 1°る52'05 0°-31'-18 -512 May 09 j 04:09 0ಂತಾ opposition min. Earth dist. -518 Jul 01 j 16:28 1°る48'51 4.07810 AU -512 Jun 29 j 03:39 10°9520'30 evening set -518 Jul 16 j 00:48 30°₽**⋌** -518 Aug 30 j 02:44 26°**₹**58'04 direct conjunction -512 Jul 12 j 15:40 13°9517'59 0°34'27 -518 Oct 13 j 03:17 0°궁 minimum elong -512 Jul 12 j 15:38 13°917'58 0°34'27 -517 Jan 01 j 21:13 evening set 16°**る**04'26 max. Earth dist. -512 Jul 12 j 20:47 13°920'47 6.34873 AU morning rise -512 Jul 26 j 01:23 16°9514'09 -517 Jan 14 j 18:53 19°る09'17 0°-40'-38 -512 Oct 07 j 05:41 $0^{\circ}\Omega$ conjunction

-517 Jan 14 j 18:50

minimum elong

19°る09'16 0°40'40

-512 Nov 24 j 16:22

retrograde

3°**Ω**30'47

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -511 in astronomical counting style is the year 512 BCE in historical counting style. 22°×23'19 -511 Jan 12 i 13:30 30°R∽ morning rise -507 Dec 28 j 21:46 -511 Jan 23 j 14:38 28°934'13 1°13'06 -506 Jan 31 j 18:30 0°궁 opposition min. Earth dist. -511 Jan 23 j 19:49 28°532'31 4.38973 AU -506 May 06 j 15:23 11°る46'28 retrograde 23°530'54 -511 Mar 26 j 08:21 -506 Jul 06 j 08:31 6°**ප**49'41 direct opposition 0°-39'-58 -511 Jun 04 j 03:30 min. Earth dist. -506 Jul 06 j 15:51 6°**⋜**47'18 0 $^{\circ}\Omega$ 4.06305 AU -511 Jul 31 j 14:43 -506 Sep 04 j 00:37 evening set 11°**Ω**18'32 direct 1°る55'50 -505 Jan 06 j 18:24 evening set 21°**පි**06'20 conjunction -511 Aug 13 j 18:32 14°Ω09'53 1°02'43 1°02'44 -505 Jan 19 j 17:06 minimum elong -511 Aug 13 j 18:30 14°**Ω**09'52 conjunction 24°**る**12'08 0°-45'-37 -505 Jan 19 j 17:03 max. Earth dist. -511 Aug 12 j 22:22 13°**Ω**58'55 6.41593 AU minimum elong 24°る12'06 0°45'38 -505 Jan 19 j 21:22 -511 Aug 17 j 14:40 15°**Ω** max. Earth dist. 24°**る**14'41 6.01729 AU -511 Aug 26 j 19:16 16°**£**59'42 -505 Feb 01 j 18:09 27°る19'24 morning rise morning rise -511 Nov 03 j 16:36 -505 Feb 13 j 02:26 0° m 0°≈ retrograde -511 Dec 25 j 01:32 3° m 53'16 -505 May 03 j 06:40 15°≈ -510 Feb 15 j 13:45 30°R€ retrograde -505 Jun 13 j 08:25 17°≈34'57 opposition -510 Feb 23 j 09:35 28°**Ω**59'46 1°42'05 -505 Jul 24 j 11:29 15°R≈ min. Earth dist. -510 Feb 24 j 06:03 28°**Ω**53'09 4.42703 AU opposition -505 Aug 12 j 14:09 12°≈34'14 -1°-31'-25 direct -510 Apr 26 j 21:29 23°**Ω**57′01 min. Earth dist. -505 Aug 12 j 01:18 12°**≈**38'30 3.98789 AU -510 Jul 03 j 10:48 0° m direct -505 Oct 10 j 00:48 7°≈40'50 evening set -510 Aug 31 j 21:20 11°M)38'10 -505 Dec 18 j 15:08 15°≈ max. Earth dist. -510 Sep 12 j 03:17 14° mp 05'17 6.41957 AU evening set -504 Feb 11 j 23:55 27°≈11'08 -504 Feb 23 i 17:18 0°\ conjunction -510 Sep 13 j 17:34 14° m 26'15 1°13'15 minimum elong -510 Sep 13 j 17:34 14° m 26'14 1°13'15 conjunction -504 Feb 25 i 05:44 0°¥21'55 -1°-9'-47 morning rise -510 Sep 26 j 10:53 17° m 12'59 minimum elong -504 Feb 25 i 05:43 0°****21'54 1°09'48 -510 Dec 02 j 09:04 0∘**⊽** max. Earth dist. -504 Feb 26 i 13:44 0°**¥**41′09 5.97699 AU -509 Jan 24 j 23:09 4°**£**10'36 -504 Mar 09 j 14:57 3°\ 34'26 retrograde morning rise -509 Mar 21 j 05:55 -504 Jul 19 j 22:09 24°\ 05'38 30°R M retrograde -509 Mar 26 j 15:38 -504 Sep 17 j 18:42 19°**)** € 01'36 -1°-48'-1 opposition 29° m 18'46 1°43'19 opposition -509 Mar 27 j 23:12 -504 Sep 16 j 13:41 min. Earth dist. 29° m 08'42 4.39772 AU min. Earth dist. 19°**升**11'26 3.98864 AU -509 May 28 j 08:09 -504 Nov 14 j 16:19 14°**)** 06'31 direct 24° m 17'43 direct -509 Aug 01 j 09:39 $0^{\circ}\Upsilon$ -503 Mar 04 j 21:01 0∘ଫ -509 Oct 01 j 16:47 12°**△**06'23 -503 Mar 20 j 06:18 3°Y34'56 evening set evening set -509 Oct 12 j 08:48 14°**≏**28'27 max. Earth dist. 6.35875 AU 6°**Y**47'19 -1°-7'-4 -503 Apr 02 j 19:54 conjunction -509 Oct 14 j 08:22 14°**2**54'56 1°03'34 -503 Apr 02 j 19:56 6°**Y**47'21 1°07'05 conjunction minimum elong -509 Oct 14 j 08:24 -503 Apr 04 j 21:59 7°**Υ**16'58 6.01782 AU minimum elong 14°**£**54'57 1°03'34 max. Earth dist. -503 Apr 16 j 12:08 morning rise -509 Oct 26 j 22:11 17°**-**42'44 morning rise 10°**Y**00′57 -509 Dec 27 j 22:51 0° M -503 Aug 21 j 17:03 0°8 retrograde -508 Feb 26 j 04:57 5°M10'40 retrograde -503 Aug 25 j 03:42 0°801'11 opposition -508 Apr 27 j 02:52 0°M18'43 1°15'32 -503 Aug 28 j 13:52 30°RY min. Earth dist. -508 Apr 28 j 12:25 0°ML08'02 4.30881 AU min. Earth dist. -503 Oct 22 j 08:32 25°Υ07'02 4.06529 AU -508 Apr 29 j 13:39 -503 Oct 23 j 16:41 24°Y'56'03 -1°-22'-49 30°R <u>Ω</u> opposition -508 Jun 28 j 07:03 25°**♀**20'03 direct -503 Dec 21 j 00:14 19°Y58'00 direct -508 Aug 24 j 19:19 -502 Mar 15 j 18:27 0°8 0°M -508 Oct 31 i 22:07 evening set 13°M29'24 evening set -502 Apr 26 j 06:30 9°803'24 -508 Nov 07 j 13:28 15°M -508 Nov 11 j 19:31 -502 May 10 j 00:52 12°**8**13'12 0°-39'-22 max. Earth dist. 15°M58'18 6.24901 AU conjunction -502 May 10 j 00:54 minimum elong 12°**8**13'13 0°39'22 conjunction -508 Nov 13 i 13:02 16°ML22'02 0°35'11 max. Earth dist. -502 May 12 i 01:44 12°841'18 6.12348 AU -508 Nov 13 i 13:04 16°M22'03 0°35'10 -502 May 22 i 03:30 15°8 minimum elong -508 Nov 26 j 03:16 19°ML14'37 morning rise -502 May 23 j 20:09 15°**8**23'12 morning rise -507 Jan 16 j 05:56 0°×7 -502 Aug 05 j 05:29 $\Pi^{\circ}0$ -507 Mar 31 j 08:43 -502 Sep 28 j 03:06 4°**Ⅱ**22'20 retrograde 7°**х** 34'39 retrograde -507 May 31 j 07:44 -502 Nov 21 j 14:48 opposition 2°**х** 41'02 0°23'17 30°R₩ -507 Jun 01 j 08:57 min. Earth dist. 2°**∡**32'57 4.18453 AU opposition -502 Nov 26 j 16:13 29°818'55 0°-29'-20 -507 Jun 22 j 11:37 30°RM min. Earth dist. -502 Nov 25 j 14:22 29°**8**27'41 4.18817 AU -507 Jul 31 j 09:11 27°M45'07 direct -501 Jan 25 j 00:07 24°**8**17'59 direct -507 Sep 07 j 18:05 0°**∡**¹ -501 Mar 28 j 20:31 $0^{\circ}\Pi$ -507 Oct 27 j 04:35 8°**х** 08′36 -501 May 31 j 22:43 12°**Ⅲ**50'42 desc. node evening set -507 Dec 03 j 09:58 -501 Jun 06 j 13:42 14°**Ⅱ**05'50 evening set 16°**₹**′24'29 asc. node -507 Dec 15 j 02:16 max. Earth dist. 19°**₹**′08'48 6.12122 AU conjunction -501 Jun 14 j 15:51 15°**I**54'18 0°00'52 conjunction -507 Dec 16 j 03:15 19°**х** 23′29 0°-5'-25 minimum elong -501 Jun 14 j 15:51 15°**Ⅲ**54'19 0°00'53 minimum elong -507 Dec 16 j 03:13 19°**х** 23′28 0°05'26 behind sun begin -501 Jun 14 j 07:31 15°**∏**49'41 behind sun begin -507 Dec 15 j 19:29 19°**∡**18'57 behind sun end -501 Jun 15 j 00:11 15° II 58'57

behind sun end

-507 Dec 16 j 10:58

19°**∡**¹28'00

max. Earth dist.

-501 Jun 15 j 20:14

16°**Ⅱ**10'10 6.25398 AU

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -501 in astronomical counting style is the year 502 BCE in historical counting style. morning rise 18°**Ⅱ**57'11 -501 Jun 28 i 08:04 morning rise -496 Nov 30 i 10:34 23°M42'52 -501 Aug 21 j 11:41 0ಂತಾ -496 Dec 28 j 19:33 0°**√** -501 Oct 30 j 04:00 6°953'01 -495 Apr 05 j 03:45 12°**∡**12'01 retrograde retrograde 1°953'06 -501 Dec 28 j 20:48 0°30'27 -495 Jun 05 j 01:58 7°**∡**18′00 opposition opposition 0°14'58 1°556'30 4.31398 AU -495 Jun 06 j 01:41 min. Earth dist. -501 Dec 28 j 10:37 min. Earth dist. 7°**∡**10′23 4.16338 AU 2°**∡**¹22′18 -500 Jan 12 j 08:21 -495 Aug 04 j 22:57 30°R,Ⅲ direct -495 Sep 07 j 23:10 -500 Feb 27 j 14:08 26°**Ⅲ**50′17 4°**₹**09'54 direct desc. node 21°**₰**07'38 -500 Apr 14 j 03:43 -495 Dec 07 j 22:53 0ಂತಾ evening set 14°953'09 -500 Jul 03 j 19:12 evening set conjunction -495 Dec 20 j 17:00 24°**×**07'51 0°-11'-11 0°39'14 conjunction -500 Jul 17 j 06:12 17°**5**49'30 minimum elong -495 Dec 20 j 16:59 24°**₹**07'51 0°11'13 -500 Jul 17 j 06:09 17°5549'29 -495 Dec 20 j 10:59 minimum elong 0°39'14 behind sun begin 24°**₹**04'19 -500 Jul 17 j 09:11 -495 Dec 20 j 22:59 max. Earth dist. 17°**9**51'08 6.36547 AU behind sun end 24°**҂**11′23 morning rise -500 Jul 30 j 14:30 20°9544'25 max. Earth dist. -495 Dec 19 j 19:56 23°**х¹**55′26 6.09963 AU -500 Sep 14 j 00:54 $0^{\circ}\Omega$ morning rise -494 Jan 02 j 12:15 27°**х** 08′59 retrograde -500 Nov 28 j 20:07 7°**Ω**54'42 -494 Jan 14 j 18:36 0°궁 opposition -499 Jan 27 j 21:39 2°**Ω**58'34 1°18'30 retrograde -494 May 11 j 19:41 16°**ප්**42'41 min. Earth dist. -499 Jan 28 j 04:00 2°**Ω**56′29 4.40369 AU opposition -494 Jul 11 j 09:48 11°**る**45'26 0°-48'-15 -499 Feb 21 j 06:41 30°Rூ min. Earth dist. -494 Jul 11 j 15:16 11°る43'39 4.04302 AU direct -499 Mar 30 j 18:25 27°955'15 direct -494 Sep 08 j 20:43 6°**る**51'45 -499 May 07 j 17:07 $0^{\circ}\Omega$ evening set -493 Jan 11 j 16:13 26°る08'26 -499 Aug 01 j 22:49 15°€ evening set -499 Aug 04 i 23:56 15°**Ω**39'17 conjunction -493 Jan 24 i 15:47 29°**る**15'24 0°-50'-11 max. Earth dist. -499 Aug 17 j 03:06 18°**Ω**17'02 6.42589 AU minimum elong -493 Jan 24 i 15:45 29°る15'23 0°50'11 max. Earth dist. -493 Jan 24 i 22:43 29°る19'34 6.00057 AU -499 Aug 18 j 02:25 18°Ω29'42 1°05'15 -493 Jan 27 i 17:57 conjunction 0°≈ -499 Aug 18 j 02:23 18°**Ω**29'41 1°05'16 -493 Feb 06 j 18:13 2°≈23'59 minimum elong morning rise -499 Aug 31 j 01:55 21°Ω18'37 -493 Apr 05 j 08:03 morning rise 15°≈ -499 Oct 12 j 18:28 -493 Jun 18 j 14:51 0°m retrograde 22° 247'09 -499 Dec 29 j 06:00 -493 Aug 17 j 19:35 8°m 09'19 retrograde opposition 17°≈45'52 -1°-36'-8 -498 Feb 27 j 15:27 -493 Aug 17 j 03:00 3° m 16'07 1°43'49 min. Earth dist. 17°≈51'24 3.97656 AU opposition min. Earth dist. -498 Feb 28 j 14:36 3° 10 08'39 4.43234 AU -493 Sep 08 j 21:17 15°R≈ -498 Mar 27 j 08:12 -493 Oct 15 j 01:44 30°R€ direct 12°≈52'21 -498 May 01 j 06:40 -493 Nov 19 j 22:35 28°**Ω**13'29 15°≈ direct -498 Jun 05 j 09:49 0° m -492 Feb 06 j 22:31 0°**∀** -498 Sep 05 j 02:07 15° m 52'59 -492 Feb 17 j 05:04 2°\ 26'21 evening set evening set -498 Sep 16 j 03:56 18° **m** 17'57 max. Earth dist. 6.41951 AU conjunction -492 Mar 01 j 12:15 5°****37'57 -1°-11'-2 conjunction -498 Sep 17 j 21:27 18° Mp 40'40 1°13'04 minimum elong -492 Mar 01 j 12:14 5°**¥**37'56 1°11'03 minimum elong -498 Sep 17 j 21:27 18° Mp 40'40 1°13'03 max. Earth dist. -492 Mar 03 j 01:02 6°**₭**00'04 5.97210 AU -498 Sep 30 j 14:03 morning rise 21° m/27'07 morning rise -492 Mar 14 j 22:35 8°**¥**51'13 -498 Nov 11 j 03:33 0∘**⊽** retrograde -492 Jul 25 j 05:57 29°\ 22'59 -497 Jan 29 j 04:40 8°**£**25'57 opposition -492 Sep 22 j 23:53 24°**)** 18'33 -1°-46'-46 retrograde -497 Mar 30 j 22:51 3°**2**34'07 1°41'06 min. Earth dist. -492 Sep 21 j 17:53 24° **)** 28'44 3.99074 AU opposition min. Earth dist. -497 Apr 01 j 07:22 3°**2**23'44 4.39226 AU direct -492 Nov 19 j 22:05 19°**¥**23′05 -497 May 01 i 04:46 -491 Feb 14 i 05:30 $0^{\circ}\Upsilon$ 30°R M -491 Mar 25 j 14:08 -497 Jun 01 i 14:58 8°Y50'43 direct 28° m 33'13 evening set -497 Jul 03 i 03:13 0∘**⊽** -491 Apr 08 i 04:46 12°Υ03'10 -1°-4'-20 evening set -497 Oct 05 j 20:38 16°**£**22'57 conjunction -491 Apr 08 i 04:48 max. Earth dist. -497 Oct 16 j 12:42 18°**2**45'23 6.34825 AU minimum elong 12°**Υ**03'12 1°04'21 -491 Apr 10 i 09:41 max. Earth dist. 12°**Y**34'23 6.02658 AU 15°**Y**16'45 conjunction -497 Oct 18 i 11:58 19°**2**11'46 1°00'41 morning rise -491 Apr 21 j 21:52 -497 Oct 18 j 12:00 19°**£**11'47 1°00'42 -491 Jul 02 j 05:14 0°8 minimum elong -497 Oct 31 j 01:26 -491 Aug 30 j 03:37 morning rise 21°**♀**59'54 retrograde 5°810'16 -497 Dec 07 j 20:44 0° M -491 Oct 27 j 07:29 min. Earth dist. 0°816'26 4.07952 AU -491 Oct 28 j 16:38 retrograde -496 Mar 01 j 15:34 9° M-33'10 opposition 0°**8**05'08 -1°-16'-19 -491 Oct 29 j 07:40 opposition -496 May 01 j 14:21 4°ML41'05 1°09'41 30°RY 25°**Y**06'38 min. Earth dist. -496 May 03 j 00:26 4°M30'14 4.29364 AU -491 Dec 26 j 01:41 direct -490 Feb 20 j 17:20 -496 Jun 18 j 22:32 0°8 -496 Jul 02 j 16:08 29°**₽**42'42 -490 May 01 j 11:40 14°**8**07'44 direct evening set -496 Jul 16 j 09:32 0°M -490 May 05 j 07:18 15°8 -496 Oct 23 j 03:57 15°M evening set -496 Nov 05 j 04:46 17°M55'51 conjunction -490 May 15 j 06:06 17°**8**16'46 0°-33'-58 max. Earth dist. -496 Nov 16 j 01:29 20°M25'02 6.23029 AU minimum elong -490 May 15 j 06:09 17°**8**16'47 0°33'59 max. Earth dist. -490 May 17 j 04:30 17°**8**43'20 6.14164 AU -496 Nov 17 j 19:44 20°M49'17 0°30'13 morning rise -490 May 29 j 01:26 20°**8**25'55 conjunction -496 Nov 17 j 19:46 20°M49'18 -490 Jul 12 j 17:50 $\Pi^{\circ}0$ minimum elong 0°30'12

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -490 in astronomical counting style is the year 491 BCE in historical counting style. 9°**Ⅱ**15'15 retrograde -490 Oct 02 j 19:36 max. Earth dist. -484 Nov 20 j 17:54 25°ML10'48 6.21021 AU min. Earth dist. -490 Nov 30 i 09:33 4°**II**20'11 4.20791 AU -490 Dec 01 j 09:16 4°**Ⅱ**12'09 0°-20'-37 -484 Nov 22 j 08:55 25°M33'18 0°24'45 opposition conjunction -489 Jan 07 j 13:04 30°R₩ -484 Nov 22 j 08:56 0°24'45 minimum elong 25°M33'19 -489 Jan 29 j 22:37 29°**8**10'49 -484 Dec 05 j 00:04 direct morning rise 28°M27'55 -489 Feb 21 j 14:02 -484 Dec 11 j 17:27 0°**∡**¹ Π °0 -489 Apr 15 j 03:02 -483 Apr 10 j 06:48 asc. node 17°**∡**06'40 6°**I**I58'34 retrograde -483 Jun 10 j 03:06 -489 Jun 05 j 21:19 evening set 17°**Ⅲ**38'14 opposition 12°**∡** 12′22 0°06'01 min. Earth dist. -483 Jun 11 j 01:24 12°**₹**05'12 4.14320 AU conjunction -489 Jun 19 j 13:58 20°**I**I40'46 0°06'48 desc. node -483 Jul 17 j 22:33 8°**х**¹06′22 -489 Jun 19 j 13:57 minimum elong 20°**Ⅱ**40'46 0°06'49 direct -483 Aug 09 j 19:38 7°**₰**17'04 -489 Jun 19 j 06:15 20°**Ⅱ**36'29 -483 Dec 12 j 18:35 behind sun begin evening set 26°**х¹**07'51 -489 Jun 19 j 21:40 behind sun end 20°**Ⅱ**45′02 max. Earth dist. -489 Jun 20 j 16:34 20°**Ⅱ**55'34 6.27356 AU conjunction -483 Dec 25 j 13:14 29°**х**¹09'08 0°-17'-15 morning rise -489 Jul 03 j 05:06 23°**Ⅱ**42'22 minimum elong -483 Dec 25 j 13:13 29°**х** 09′07 0°17'17 -489 Aug 01 j 15:37 0ಂತಾ max. Earth dist. -483 Dec 24 j 18:40 28°**≯**′58′08 6.08132 AU retrograde -489 Nov 03 j 13:14 11°529'42 -483 Dec 29 j 03:03 0°궁 opposition -488 Jan 02 j 08:06 6°930'19 0°38'22 morning rise -482 Jan 07 j 09:33 2°る11'30 min. Earth dist. -488 Jan 01 j 23:27 6°533'12 4.33161 AU retrograde -482 May 17 j 02:55 21°る54'15 direct -488 Mar 03 j 05:24 1°527'24 opposition -482 Jul 16 j 16:38 16°**ප**56'27 0°-56'-37 evening set -488 Jul 08 j 11:00 19°926'05 min. Earth dist. -482 Jul 16 j 17:51 16°る56'03 4.02864 AU direct -482 Sep 13 j 21:37 12°る02'57 conjunction -488 Jul 21 i 20:39 22°9521'20 0°43'52 -481 Jan 10 j 22:41 0°≈ minimum elong -488 Jul 21 i 20:36 22°**5**21'18 0°43'52 evening set -481 Jan 16 j 18:58 1°≈23'32 max. Earth dist. -488 Jul 21 j 18:24 22°9520'06 6.37959 AU -488 Aug 04 j 03:49 25°915'10 -481 Jan 29 j 19:37 4°≈31'22 0°-54'-36 morning rise conjunction -488 Aug 26 j 12:59 minimum elong -481 Jan 29 i 19:34 0°54'37 $0^{\circ}\Omega$ 4°≈31'20 -488 Dec 03 j 04:07 12°Ω20'33 max. Earth dist. -481 Jan 30 j 08:33 5.99165 AU retrograde 4°≈39'09 -487 Feb 01 j 06:12 7°**Ω**24'54 1°23'38 -481 Feb 11 j 23:00 7°**≈**40'47 opposition morning rise -487 Feb 01 j 16:01 7°**Ω**21'42 4.41344 AU -481 Mar 15 j 15:39 min. Earth dist. 15°≈ -487 Apr 04 j 07:37 2°**£**21′37 -481 Jun 24 j 01:40 28°≈07'57 direct retrograde -487 Jul 16 j 08:27 -481 Aug 22 j 09:23 min. Earth dist. 23°≈12'22 3.97438 AU 15°Ω -487 Aug 09 j 10:24 -481 Aug 23 j 04:02 evening set 20°**Ω**03'37 opposition 23°≈06'07 -1°-40'-14 -481 Oct 20 j 09:02 max. Earth dist. -487 Aug 21 j 09:54 22°**Ω**39'18 6.43040 AU direct 18°**≈**12'26 -480 Jan 19 j 18:08 0°**∀** -487 Aug 22 j 11:53 22°Ω53'25 1°07'32 -480 Feb 22 j 12:15 7°**)** 46′24 conjunction evening set -487 Aug 22 j 11:51 22°**Ω**53'24 1°07'32 minimum elong -487 Sep 04 j 10:07 morning rise 25°**Ω**41'41 conjunction -480 Mar 06 j 20:29 10°**)** 58'16 -1°-11'-48 -487 Sep 24 j 18:05 0°m minimum elong -480 Mar 06 j 20:29 10°**¥**58'16 1°11'48 retrograde -486 Jan 02 j 12:09 12° Mp 31'36 max. Earth dist. -480 Mar 08 j 13:18 11°**)** €22'45 5.97673 AU opposition -486 Mar 04 j 00:00 7° m 38'42 1°45'10 morning rise -480 Mar 20 j 07:55 14°**)** 11′46 min. Earth dist. -486 Mar 05 j 00:16 7° m/30'53 4.43159 AU -480 Jun 04 j 16:42 $0^{\circ}\Upsilon$ -486 May 05 j 15:37 2° m/36'17 -480 Jul 30 j 10:36 4°Υ39'38 direct retrograde -486 Sep 09 j 10:15 20° My 16'15-480 Sep 25 j 02:02 30°₽**₩** evening set max. Earth dist. -486 Sep 20 j 09:38 22° m/40'12 6.41350 AU min. Earth dist. -480 Sep 26 j 19:56 29°**)**(45'47 4.00190 AU -480 Sep 28 i 03:56 29°**)** 34'54 -1°-44'-41 opposition -486 Sep 22 i 04:45 23°m 03'51 1°12'31 -480 Nov 25 i 01:46 24°**)** 39'03 conjunction direct -486 Sep 22 i 04:45 -479 Jan 22 i 18:23 $0^{\circ}\Upsilon$ minimum elong 23°m 03'52 1°12'31 -486 Oct 04 i 20:39 -479 Mar 30 j 20:44 14° **Y** 02' 43 morning rise 25° m 50'17 evening set -486 Oct 24 i 06:56 0∘**⊽** retrograde -485 Feb 02 i 16:21 12°**£**52'28 conjunction -479 Apr 13 i 12:00 17°**Y**14'44 -1°-1'-12 -485 Apr 04 j 10:58 8°**2**00'46 1°38'20 minimum elong -479 Apr 13 i 12:03 17°**Y**14'46 1°01'13 opposition min. Earth dist. -485 Apr 05 j 21:16 7°**£**49'50 4.38125 AU max. Earth dist. -479 Apr 15 j 16:02 17°**℃**45'19 6.04296 AU -485 Jun 06 j 03:01 morning rise -479 Apr 27 j 05:45 20°**Y**27'47 direct 3°**♀**00'13 -479 Jun 09 j 11:53 evening set -485 Oct 10 j 05:18 20°**♀**52'42 0° 8 -485 Oct 20 j 19:46 max. Earth dist. 23°**♀**14'48 6.33305 AU retrograde -479 Sep 03 j 23:15 10°**8**11'51 min. Earth dist. -479 Nov 01 j 05:00 5°817'44 4.09908 AU 5°**8**06'46 -485 Oct 22 j 20:22 23°**△**42'02 0°57'21 opposition -479 Nov 02 j 13:07 -1°-9'-26 conjunction -485 Oct 22 j 20:24 0°57'20 direct -479 Dec 31 j 02:26 0°**8**07'45 minimum elong 23°**£**42'03 -485 Nov 04 j 09:55 26°**♀**30'48 15°8 morning rise -478 Apr 18 j 09:56 -485 Nov 20 j 06:22 -478 May 06 j 12:55 19°**8**03'04 0°M evening set retrograde -484 Mar 06 j 08:56 14°ML11'15 opposition -484 May 06 j 08:22 9°**IL**19′00 1°03'06 conjunction -478 May 20 j 07:34 22°**8**11'12 0°-28'-31 min. Earth dist. -484 May 07 j 17:15 9°M08'31 4.27512 AU minimum elong -478 May 20 j 07:36 22°**8**11'13 0°28'32 direct -484 Jul 07 j 06:14 4°M21'00 max. Earth dist. -478 May 22 j 04:53 22°**8**37'02 6.16280 AU -484 Oct 05 j 17:06 15°M morning rise -478 Jun 03 j 02:27 25°**8**19'15

-484 Nov 09 j 17:33

evening set

22°M38'54

-478 Jun 24 j 05:28

 $\Pi^{\circ}0$

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -478 in astronomical counting style is the year 479 BCE in historical counting style. retrograde -478 Oct 07 i 08:15 13°**I**58′17 -472 Sep 15 i 00:14 15°M 27°M25'29 -478 Dec 05 j 22:23 8°**Ⅱ**55'39 0°-12'-6 -472 Nov 14 j 08:06 opposition evening set min. Earth dist. -478 Dec 05 j 00:30 9°**П**03'03 4.22849 AU max. Earth dist. -472 Nov 25 j 10:25 29°M59'14 6.19097 AU -477 Feb 03 j 16:24 3°**I**I54'01 -472 Nov 25 j 11:45 direct 0°×7 asc. node -477 Feb 23 j 03:17 4°**Ⅱ**30'15 -477 Jun 10 j 15:56 -472 Nov 26 j 23:44 0°**∡**°20′50 0°19'03 evening set 22°**Ⅲ**16′12 conjunction -472 Nov 26 j 23:45 0°19'02 minimum elong 0°**х** 20′51 -472 Dec 09 j 15:34 -477 Jun 24 j 07:39 25°**I**17'37 0°12'27 conjunction morning rise 3°**х** 16′32 -477 Jun 24 j 07:38 minimum elong 25°**Ⅱ**17'36 0°12'27 retrograde -471 Apr 15 j 09:09 22°**₹**'04'25 -477 Jun 24 j 02:23 behind sun begin 25°**Ⅲ**14'42 desc. node -471 May 26 j 17:58 19°**х** 33'35 behind sun end -477 Jun 24 j 12:53 25°**Ⅲ**20'30 opposition -471 Jun 15 j 05:43 17°**₹**09'40 0°-3'-6 -477 Jun 25 j 04:40 25°**Ⅲ**29'15 -471 Jun 16 j 00:11 max. Earth dist. 6.29181 AU min. Earth dist. 17°**х** 03′42 4.12559 AU -477 Jul 07 j 21:59 12°**∡**14'43 morning rise 28°**Ⅱ**18'03 direct -471 Aug 14 j 16:16 -477 Jul 15 j 16:23 0ಂತಾ -471 Dec 12 j 16:21 0°ರ retrograde -477 Nov 07 j 20:34 15°957'53 evening set -471 Dec 17 j 15:13 1°る09'49 opposition -476 Jan 06 j 16:12 10°959'01 0°45'46 min. Earth dist. -476 Jan 06 j 10:49 11°9500'48 4.34629 AU conjunction -471 Dec 30 j 10:36 4°る12'02 0°-23'-14 direct -476 Mar 07 j 18:28 5°955'53 minimum elong -471 Dec 30 j 10:34 4°**る**12'01 0°23'15 evening set -476 Jul 12 j 23:35 23°951'33 max. Earth dist. -471 Dec 29 j 21:26 4°**る**04'13 6.06692 AU morning rise -470 Jan 12 j 07:39 7°る15'22 27°**る**05'28 conjunction -476 Jul 26 j 08:18 26°945'57 0°48'07 retrograde -470 May 22 j 11:50 minimum elong -476 Jul 26 i 08:15 26°9545'56 0°48'08 opposition -470 Jul 21 i 23:32 22°**る**07'06 -1°-4'-33 max. Earth dist. -476 Jul 26 i 03:09 26°5543'09 6.38961 AU min. Earth dist. -470 Jul 21 i 22:28 22°る07'27 4.01882 AU morning rise -476 Aug 08 j 14:02 29°538'51 direct -470 Sep 19 i 01:39 17°る13'44 -476 Aug 10 j 05:08 $0^{\circ}\Omega$ -470 Dec 24 j 10:47 0°≈ -476 Nov 04 j 10:38 15°Ω -469 Jan 21 j 21:30 6°≈36'30 evening set -476 Dec 07 j 08:43 16°**Ω**40'48 retrograde -475 Jan 09 j 07:06 -469 Feb 03 j 23:04 9°**≈**44'56 0°-58'-33 15°R € conjunction -475 Feb 05 j 12:32 -469 Feb 03 j 23:01 opposition 11°Ω45'38 1°28'12 minimum elong 9°≈44'55 0°58'34 -475 Feb 06 j 00:15 11°**Ω**41'49 -469 Feb 04 j 16:17 5.98708 AU min. Earth dist. max. Earth dist. 9°≈55'18 4.41844 AU 6°**Ω**42'24 -475 Apr 08 j 15:55 -469 Feb 17 j 03:34 direct morning rise 12° \$\infty 55'02 -475 Jun 28 j 04:49 $15^{\circ}\Omega$ -469 Feb 25 j 22:04 15°≈ -469 May 13 j 01:49 0°\ -475 Aug 13 j 19:21 24°**Ω**23'56 evening set -469 Jun 29 j 08:55 3°**¥**24′04 retrograde -475 Aug 26 j 19:37 27°Ω13'18 1°09'24 -469 Aug 15 j 23:50 conjunction 30°R≈ 28°≈21'47 -1°-43'-27 -475 Aug 26 j 19:35 -469 Aug 28 j 10:12 minimum elong 27°**Ω**13'17 1°09'24 opposition -475 Aug 25 j 13:11 -469 Aug 27 j 12:35 max. Earth dist. 26°**Ω**56'45 6.42984 AU min. Earth dist. 28°≈29'01 3.97590 AU morning rise -475 Sep 08 j 16:59 0°Mp01'12 direct -469 Oct 25 j 12:27 23°**≈**27'56 -475 Sep 08 j 14:45 0°m -469 Dec 29 j 18:01 0°**)**€ retrograde -474 Jan 06 j 20:50 16° Mp 52'02 evening set -468 Feb 27 j 17:48 13°**₭**00'58 opposition -474 Mar 08 j 08:28 11° m 59'25 1°45'57 min. Earth dist. -474 Mar 09 j 11:36 11° m/50'42 4.42575 AU conjunction -468 Mar 12 j 02:59 16°**)** 12'57 -1°-11'-59 direct -474 May 10 j 01:44 6° m 57'11 minimum elong -468 Mar 12 j 02:59 16°¥12'57 1°12'00 -474 Sep 13 j 18:01 24° m 39'04 max. Earth dist. -468 Mar 13 j 21:21 16°**)** 38'19 5.98386 AU evening set max. Earth dist. -474 Sep 24 j 15:38 27° Mp 02'27 -468 Mar 25 j 15:28 19°**¥**26′33 6.40274 AU morning rise $0^{\circ}\Upsilon$ -468 May 11 j 23:27 -474 Sep 26 i 12:00 -468 Aug 04 j 11:45 9°Y49'50 conjunction 27° m 26'51 1°11'33 retrograde -474 Sep 26 j 12:00 -468 Oct 01 i 20:49 4°Υ55'57 4.01382 AU minimum elong 27° m 26'51 1°11'33 min. Earth dist. -474 Oct 08 i 02:40 4°**Υ**44'53 -1°-41'-50 0∘**⊽** opposition -468 Oct 03 i 05:16 -474 Oct 09 i 03:19 0°**£**13'29 -468 Nov 19 i 18:19 30°R**₩** morning rise 29°**¥**48'37 -473 Feb 07 j 03:54 17°**♀**20'32 direct -468 Nov 30 j 04:37 retrograde -473 Apr 09 j 00:04 12°**♀**28'51 1°34'58 -468 Dec 10 j 16:02 $0^{\circ}\Upsilon$ opposition 12°**≏**18′05 4.36645 AU min. Earth dist. -473 Apr 10 j 09:51 -467 Apr 05 j 00:47 19° Y 08'33 evening set direct -473 Jun 10 j 13:10 7°**£**28'39 evening set -473 Oct 14 j 15:18 25°**£**25′00 conjunction -467 Apr 18 j 16:57 22°**Y**20′13 0°-57'-41 22°**Y**20'15 max. Earth dist. -473 Oct 25 j 07:02 27°**-**48′25 6.31547 AU minimum elong -467 Apr 18 j 17:00 0°57'41 22°**Y**51'20 max. Earth dist. -467 Apr 20 j 22:09 6.05872 AU -473 Oct 27 j 06:12 28°**♀**14'58 0°53'38 -467 May 02 j 11:02 25°**Y**32'43 conjunction morning rise -473 Oct 27 j 06:15 28°**♀**15'00 0°53'37 -467 May 22 j 00:27 0° 8 minimum elong -473 Nov 04 j 00:46 0°M -467 Aug 30 j 18:45 15°8 -473 Nov 08 j 19:45 15°**8**08'03 morning rise 1°M04'29 retrograde -467 Sep 08 j 18:38 -472 Jan 19 j 16:35 15°M -467 Sep 17 j 17:20 15°₹**8** retrograde -472 Mar 11 j 05:55 18°M52'47 min. Earth dist. -467 Nov 06 j 00:43 10°**8**13'46 4.11688 AU -472 May 03 j 07:42 15°RM opposition -467 Nov 07 j 07:34 10°**8**03'15 -1°-2'-13 opposition -472 May 11 j 04:16 14°ML00'23 0°56'00 direct -466 Jan 05 j 00:19 5°**8**03'53 min. Earth dist. -472 May 12 j 12:50 13°M50'00 4.25585 AU -466 Mar 31 j 03:00 15°8

-472 Jul 11 j 23:16

direct

9°M02'48

-466 May 11 j 12:41

evening set

23°**8**54'25

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 39 Attention, astronomical year style is used: The year -466 in astronomical counting style is the year 467 BCE in historical counting style.

Attention, astronom	ical year style is used: T	ne year -400 ii	n astronomical coul	nting style is the year 4	6 / BCE in historical co	unting style.	
conjunction	-466 May 25 j 07:08	27° 8 01'43	0°-22'-58	min. Earth dist.	-460 May 17 j 06:33	18° M 33'55	4.24012 AU
minimum elong	-466 May 25 j 07:10	27° 8 01'44	0°22'58		-460 Jun 18 j 03:44	15° ₹M ₀	
max. Earth dist.	-466 May 27 j 00:27	27° 8 25'10	6.18116 AU	direct	-460 Jul 16 j 14:49	13° M 46'17	
	-466 Jun 07 j 10:08	Π° 0			-460 Aug 14 j 00:06	15° M ₊	
morning rise	-466 Jun 08 j 01:52	0° Ⅱ 08'51			-460 Nov 09 j 06:51	0° ⊼ ¹	
retrograde	-466 Oct 11 j 19:22	18° Ⅲ 39'03		evening set	-460 Nov 18 j 22:25	2° ∡ 12'16	
opposition	-466 Dec 10 j 10:24	13° II 36'55	0°-3'-36	max. Earth dist.	-460 Nov 30 j 04:36	4° ∡ 148'46	6.17595 AU
min. Earth dist.	-466 Dec 09 j 14:34	13° I I43'36	4.24575 AU	man. Darm diot.	100 1101 50 1 0 1.50		0.17070 110
asc. node	-465 Jan 03 j 03:38	10° ∏ 38'24	4.24373710	conjunction	-460 Dec 01 j 14:18	5° ∡ 108'21	0°13'18
direct	-465 Feb 08 i 08:47	8° П 34'58		minimum elong	-460 Dec 01 j 14:18	5°×708'21	0°13'16
	,				-460 Dec 01 j 14.18		0 13 10
evening set	-465 Jun 15 j 09:50	26° Ⅱ 53'18		behind sun begin	3	5° ₹ 05'36	
				behind sun end	-460 Dec 01 j 19:05	5° ₹ 11'07	
conjunction	-465 Jun 29 j 00:55	29° Ⅱ 53'47		morning rise	-460 Dec 14 j 06:34	8° ∡ 104'53	
minimum elong	-465 Jun 29 j 00:54	29° Ⅱ 53'46	0°18'00	desc. node	-459 Apr 05 j 16:20	26° ₹ 39'43	
	-465 Jun 29 j 12:10	0		retrograde	-459 Apr 20 j 11:58	27° ҂ 00′20	
max. Earth dist.	-465 Jun 29 j 18:46	0° ട്ട 03'39	6.30683 AU	opposition	-459 Jun 20 j 07:24	22° ₰ 05'06	0°-12'-4
morning rise	-465 Jul 12 j 14:07	2° © 53'09		min. Earth dist.	-459 Jun 21 j 00:00	21° ₹ 59'43	4.11232 AU
retrograde	-465 Nov 12 j 04:43	20° © 26'47		direct	-459 Aug 19 j 14:46	17° ∡ 10′26	
opposition	-464 Jan 11 j 00:34	15° 5 28'32	0°52'55		-459 Nov 25 j 16:56	0°ප	
min. Earth dist.	-464 Jan 10 j 21:44	15° © 29'28	4.35798 AU	evening set	-459 Dec 22 j 10:35	6° ප 08'15	
direct	-464 Mar 12 j 06:35	10°925'21		C	,		
evening set	-464 Jul 17 j 12:23	28° © 18'51		conjunction	-458 Jan 04 i 06:36	9° ට 11'10	0°-28'-55
evening set	-464 Jul 25 j 06:46	0°Ω		minimum elong	-458 Jan 04 j 06:34	9° ਟ 1110	0°28'56
	-404 Jul 23 j 00.40	0 80		max. Earth dist.	-458 Jan 03 j 21:12	9° る 05'35	6.05663 AU
agniumation	-464 Jul 30 j 19:51	1° Ω 12'29	0°52'07	morning rise	-	9 3 0533	0.03003 AC
conjunction				morning rise	-458 Jan 17 j 04:32		
minimum elong	-464 Jul 30 j 19:48	1° Ω 12'28	0°52'07		-458 Apr 19 j 23:18	0° ≈	
max. Earth dist.	-464 Jul 30 j 09:32		6.39692 AU	retrograde	-458 May 27 j 15:55	2°≈10'49	
morning rise	-464 Aug 13 j 00:33	4° Ω 04'39			-458 Jul 04 j 11:41	30°Rる	
	-464 Oct 07 j 05:56	15° Ω		opposition	-458 Jul 27 j 03:32	27° る 11'53	-1°-11'-46
retrograde	-464 Dec 11 j 16:11	21° Ω 04'11		min. Earth dist.	-458 Jul 26 j 22:57	27° ♂ 13'24	4.01276 AU
opposition	-463 Feb 09 j 20:19	16° Ω 09'28	1°32'19	direct	-458 Sep 24 j 01:25	22° る 18'34	
min. Earth dist.	-463 Feb 10 j 10:51	16° Ω 04'44	4.42122 AU		-458 Dec 04 j 22:42	0° ≈	
	-463 Feb 18 j 19:40	15°R Ω		evening set	-457 Jan 26 j 21:29	11° ≈ 42′19	
direct	-463 Apr 13 j 02:15	11° Ω 06′16					
	-463 Jun 05 j 03:37	15° Ω		conjunction	-457 Feb 08 j 23:51	14° ≈ 51'11	-1°-1'-56
evening set	-463 Aug 18 j 04:54	28° Ω 47'47		minimum elong	-457 Feb 08 j 23:49	14° ≈ 51'09	1°01'56
C	-463 Aug 23 j 18:18	0° mp		C	-457 Feb 09 j 14:31	15° ≈	
max. Earth dist.	-463 Aug 29 j 20:45		6.42787 AU	max. Earth dist.	-457 Feb 09 j 20:05	15° ≈ 03'21	5.98550 AU
man. Darur dige.	105 114g 27 j 20.15	1 14 19 30	0.12707110	morning rise	-457 Feb 22 j 05:23	18° ≈ 01'46	0.50000110
conjunction	-463 Aug 31 j 04:19	1° m/36'50	1°10'55	morning rise	-457 Apr 17 j 09:43	0° \	
minimum elong	-403 Aug 31 J 04.19	1 11/3030	1 10 33		-43/Apr 1/J09.43	0 /	
minimum ciong	462 Aug 21 i 04:19	10 m 26140	1010/55	ratrograda	457 Inl 04 i 12:01	00¥21!20	
	-463 Aug 31 j 04:18	1° Mp 36'49	1°10'55	retrograde	-457 Jul 04 j 12:01	8°) 31'30	10 451 44
morning rise	-463 Sep 13 j 00:32	4° Mp 24′24	1°10'55	opposition	-457 Sep 02 j 12:44	3° ¥ 28'41	-1°-45'-44
retrograde	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55	4° Mp 24'24 21° Mp 16'34		•	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28	3° ∺ 28'41 3° ∺ 36'31	-1°-45'-44 3.97908 AU
retrograde opposition	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19	4° m/24'24 21° m/16'34 16° m/24'13	1°46'10	opposition min. Earth dist.	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05	3°) 28'41 3°) 36'31 30°R≈	
retrograde	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01	4° m 24'24 21° m 16'34 16° m 24'13 16° m 15'20		opposition	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09	3°¥28'41 3°¥36'31 30°R≈ 28°≈34'33	
retrograde opposition	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19	4° m/24'24 21° m/16'34 16° m/24'13	1°46'10	opposition min. Earth dist.	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57	3°¥28'41 3°¥36'31 30°R≈ 28°≈34'33 0°¥	
retrograde opposition min. Earth dist.	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01	4° m 24'24 21° m 16'34 16° m 24'13 16° m 15'20	1°46'10	opposition min. Earth dist.	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09	3°¥28'41 3°¥36'31 30°R≈ 28°≈34'33	
retrograde opposition min. Earth dist. direct	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 May 14 j 10:52	4° m/24'24 21° m/16'34 16° m/24'13 16° m/15'20 11° m/22'17 29° m/05'57 0° Ω	1°46'10 4.41946 AU	opposition min. Earth dist. direct	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57	3°¥28'41 3°¥36'31 30°R≈ 28°≈34'33 0°¥	
retrograde opposition min. Earth dist. direct	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 May 14 j 10:52 -462 Sep 18 j 03:01	4° m/24'24 21° m/16'34 16° m/24'13 16° m/15'20 11° m/22'17 29° m/05'57 0° Ω	1°46'10	opposition min. Earth dist. direct	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57	3°¥28'41 3°¥36'31 30°R≈ 28°≈34'33 0°¥	3.97908 AU
retrograde opposition min. Earth dist. direct evening set	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 May 14 j 10:52 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37	4° m/24'24 21° m/16'34 16° m/24'13 16° m/15'20 11° m/22'17 29° m/05'57 0° Ω	1°46'10 4.41946 AU	opposition min. Earth dist. direct evening set conjunction	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51	3° ¥28'41 3° ¥36'31 30° R≈ 28°≈34'33 0° ¥ 18° ¥06'10	3.97908 AU -1°-11'-36
retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 May 14 j 10:52 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27	4° my 24'24 21° my 16'34 16° my 24'13 16° my 15'20 11° my 22'17 29° my 05'57 0° Ω 1° Ω 28'35	1°46'10 4.41946 AU 6.39266 AU	opposition min. Earth dist. direct evening set conjunction minimum elong	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11	3° ★28'41 3° ★36'31 30° ₹≈ 28° ≈34'33 0° ₩ 18° ₩06'10 21° ₩18'17 21° ₩18'17	3.97908 AU -1°-11'-36 1°11'37
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 May 14 j 10:52 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27	4° m 24'24 21° m 16'34 16° m 24'13 16° m 15'20 11° m 22'17 29° m 05'57 0° Ω 1° Ω 28'35	1°46'10 4.41946 AU 6.39266 AU 1°10'11	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46	3° ★28'41 3° ★36'31 30° ₹≈ 28° ≈34'33 0° ₩ 18° ₩06'10 21° ₩18'17 21° ₩18'17 21° ₩45'30	3.97908 AU -1°-11'-36
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 May 14 j 10:52 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:13 -462 Sep 30 j 20:14	4° m 24'24 21° m 16'34 16° m 24'13 16° m 15'20 11° m 22'17 29° m 05'57 0° Ω 1° Ω 28'35 1° Ω 53'51 1° Ω 53'52	1°46'10 4.41946 AU 6.39266 AU	opposition min. Earth dist. direct evening set conjunction minimum elong	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25	3° ★28'41 3° ★36'31 30° ₹≈ 28° ≈34'33 0° ₩ 18° ₩06'10 21° ₩18'17 21° ₩18'17 21° ₩45'30 24° ₩31'53	3.97908 AU -1°-11'-36 1°11'37
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 May 14 j 10:52 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:13 -462 Sep 30 j 20:14 -462 Oct 13 j 11:11	4° m 24'24 21° m 16'34 16° m 24'13 16° m 15'20 11° m 22'17 29° m 05'57 0° Ω 1° Ω 28'35 1° Ω 53'51 1° Ω 53'52 4° Ω 40'44	1°46'10 4.41946 AU 6.39266 AU 1°10'11	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25 -456 Apr 23 j 10:35	3° ★28'41 3° ★36'31 30° ₹≈ 28° ≈34'33 0° ₩ 18° ₩06'10 21° ₩18'17 21° ₩18'17 21° ₩45'30 24° ₩31'53 0° ♥	3.97908 AU -1°-11'-36 1°11'37
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 May 14 j 10:52 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:13 -462 Sep 30 j 20:14 -462 Oct 13 j 11:11 -461 Feb 11 j 19:11	4° m 24'24 21° m 16'34 16° m 22'13 16° m 15'20 11° m 22'17 29° m 05'57 0° \(\Omega\) 1° \(\Omega\) 28'35 1° \(\Omega\) 53'51 1° \(\Omega\) 53'52 4° \(\Omega\) 40'44 21° \(\Omega\) 52'24	1°46'10 4.41946 AU 6.39266 AU 1°10'11 1°10'10	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25 -456 Apr 23 j 10:35 -456 Aug 09 j 11:02	3° ★28'41 3° ★36'31 30° № 28° ≈34'33 0° ★ 18° ★06'10 21° ★18'17 21° ★18'17 21° ★45'30 24° ★31'53 0° ♀ 14° ♀50'19	3.97908 AU -1°-11'-36 1°11'37 5.99144 AU
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 May 14 j 10:52 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:13 -462 Sep 30 j 20:14 -462 Oct 13 j 11:11 -461 Feb 11 j 19:11 -461 Apr 13 j 14:49	4° m 24'24 21° m 16'34 16° m 22'13 16° m 15'20 11° m 22'17 29° m 05'57 0° \(\Omega\) 1° \(\Omega\) 28'35 1° \(\Omega\) 53'51 1° \(\Omega\) 53'52 4° \(\Omega\) 40'44 21° \(\Omega\) 52'24 17° \(\Omega\) 00'45	1°46'10 4.41946 AU 6.39266 AU 1°10'11 1°10'10	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist.	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25 -456 Apr 23 j 10:35 -456 Aug 09 j 11:02 -456 Oct 06 j 18:42	3° ★28'41 3° ★36'31 30° № 28° ≈34'33 0° ₩ 18° ₩06'10 21° ₩18'17 21° ₩45'30 24° ₩31'53 0° Ψ 14° Ψ50'19 9° Ψ56'13	3.97908 AU -1°-11'-36 1°11'37 5.99144 AU 4.02504 AU
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 May 14 j 10:52 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:13 -462 Sep 30 j 20:14 -462 Oct 13 j 11:11 -461 Apr 13 j 14:49 -461 Apr 15 j 01:26	4° m 24'24 21° m 16'34 16° m 22'13 16° m 15'20 11° m 22'17 29° m 05'57 0° \(\Omega\) 1° \(\Omega\) 28'35 1° \(\Omega\) 53'51 1° \(\Omega\) 53'52 4° \(\Omega\) 40'44 21° \(\Omega\) 52'24 17° \(\Omega\) 00'45 16° \(\Omega\) 49'43	1°46'10 4.41946 AU 6.39266 AU 1°10'11 1°10'10	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25 -456 Apr 23 j 10:35 -456 Aug 09 j 11:02 -456 Oct 06 j 18:42 -456 Oct 08 j 02:48	3° ★28'41 3° ★36'31 30° № 28° ≈34'33 0° ₩ 18° ₩06'10 21° ₩18'17 21° ₩45'30 24° ₩31'53 0° Ψ 14° Ψ50'19 9° Ψ56'13 9° Ψ45'18	3.97908 AU -1°-11'-36 1°11'37 5.99144 AU
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 May 14 j 10:52 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:13 -462 Oct 13 j 11:11 -461 Feb 11 j 19:11 -461 Apr 13 j 14:49 -461 Apr 15 j 01:26 -461 Jun 15 j 02:59	4° m 24'24 21° m 16'34 16° m 24'13 16° m 15'20 11° m 22'17 29° m 05'57 0° \(\Omega\) 1° \(\Omega\) 28'35 1° \(\Omega\) 28'35 1° \(\Omega\) 53'51 1° \(\Omega\) 53'52 4° \(\Omega\) 40'44 21° \(\Omega\) 52'24 17° \(\Omega\) 00'45 16° \(\Omega\) 49'43 12° \(\Omega\) 00'54	1°46'10 4.41946 AU 6.39266 AU 1°10'11 1°10'10	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25 -456 Apr 23 j 10:35 -456 Aug 09 j 11:02 -456 Oct 06 j 18:42 -456 Oct 08 j 02:48 -456 Dec 05 j 03:34	3° ¥28'41 3° ¥36'31 30° ₹≈ 28° ≈34'33 0° ¥ 18° ¥06'10 21° ¥18'17 21° ¥18'17 21° ¥45'30 24° ¥31'53 0° Ŷ 14° Ŷ50'19 9° Ŷ56'13 9° Ŷ45'18 4° Ŷ48'38	3.97908 AU -1°-11'-36 1°11'37 5.99144 AU 4.02504 AU
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 May 14 j 10:52 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:13 -462 Sep 30 j 20:14 -462 Oct 13 j 11:11 -461 Feb 11 j 19:11 -461 Apr 13 j 14:49 -461 Apr 15 j 01:26 -461 Jun 15 j 02:59 -461 Oct 19 j 01:42	4° m 24'24 21° m 16'34 16° m 22'13 16° m 15'20 11° m 22'17 29° m 05'57 0° \(\Omega\) 1° \(\Omega\) 53'51 1° \(\Omega\) 53'52 4° \(\Omega\) 40'44 21° \(\Omega\) 52'24 17° \(\Omega\) 00'45 16° \(\Omega\) 49'43 12° \(\Omega\) 00'54 0° \(\Omega\) 00'11	1°46'10 4.41946 AU 6.39266 AU 1°10'11 1°10'10	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25 -456 Apr 23 j 10:35 -456 Aug 09 j 11:02 -456 Oct 06 j 18:42 -456 Oct 08 j 02:48	3° ¥28'41 3° ¥36'31 30° № 28° ≈34'33 0° ¥ 18° ¥06'10 21° ¥18'17 21° ¥45'30 24° ¥31'53 0° ♀ 14° ♀50'19 9° ♀56'13 9° ♀45'18	3.97908 AU -1°-11'-36 1°11'37 5.99144 AU 4.02504 AU
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:13 -462 Sep 30 j 20:14 -462 Oct 13 j 11:11 -461 Feb 11 j 19:11 -461 Apr 13 j 14:49 -461 Apr 15 j 01:26 -461 Jun 15 j 02:59 -461 Oct 19 j 01:42 -461 Oct 19 j 01:23	4° m 24'24 21° m 16'34 16° m 24'13 16° m 15'20 11° m 22'17 29° m 05'57 0° Ω 1° Ω 28'35 1° Ω 53'51 1° Ω 53'52 4° Ω 40'44 21° Ω 52'24 17° Ω 00'45 16° Ω 49'43 12° Ω 00'54 0° m 00'11 0° m	1°46'10 4.41946 AU 6.39266 AU 1°10'11 1°10'10 1°31'02 4.35329 AU	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25 -456 Apr 23 j 10:35 -456 Oct 06 j 18:42 -456 Oct 08 j 02:48 -456 Dec 05 j 03:34 -455 Apr 10 j 01:56	3° ¥28'41 3° ¥36'31 30° R≈ 28°≈34'33 0° ¥ 18° ¥06'10 21° ¥18'17 21° ¥18'17 21° ¥45'30 24° ¥31'53 0° Y 14° Y50'19 9° Y56'13 9° Y45'18 4° Y48'38 24° Y05'22	3.97908 AU -1°-11'-36 1°11'37 5.99144 AU 4.02504 AU -1°-38'-20
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 May 14 j 10:52 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:13 -462 Sep 30 j 20:14 -462 Oct 13 j 11:11 -461 Feb 11 j 19:11 -461 Apr 13 j 14:49 -461 Apr 15 j 01:26 -461 Jun 15 j 02:59 -461 Oct 19 j 01:42	4° m 24'24 21° m 16'34 16° m 24'13 16° m 15'20 11° m 22'17 29° m 05'57 0° Ω 1° Ω 28'35 1° Ω 53'51 1° Ω 53'52 4° Ω 40'44 21° Ω 52'24 17° Ω 00'45 16° Ω 49'43 12° Ω 00'54 0° m 00'11 0° m	1°46'10 4.41946 AU 6.39266 AU 1°10'11 1°10'10	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25 -456 Apr 23 j 10:35 -456 Oct 06 j 18:42 -456 Oct 08 j 02:48 -456 Dec 05 j 03:34 -455 Apr 10 j 01:56	3° ¥28'41 3° ¥36'31 30° R≈ 28°≈34'33 0° ¥ 18° ¥06'10 21° ¥18'17 21° ¥45'30 24° ¥31'53 0° Y 14° Y50'19 9° Y56'13 9° Y45'18 4° Y48'38 24° Y05'22 27° Y16'41	3.97908 AU -1°-11'-36 1°11'37 5.99144 AU 4.02504 AU -1°-38'-20
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:13 -462 Sep 30 j 20:14 -462 Oct 13 j 11:11 -461 Feb 11 j 19:11 -461 Apr 13 j 14:49 -461 Apr 15 j 01:26 -461 Jun 15 j 02:59 -461 Oct 19 j 01:42 -461 Oct 19 j 01:23	4° m 24'24 21° m 16'34 16° m 24'13 16° m 15'20 11° m 22'17 29° m 05'57 0° Ω 1° Ω 28'35 1° Ω 53'51 1° Ω 53'52 4° Ω 40'44 21° Ω 52'24 17° Ω 00'45 16° Ω 49'43 12° Ω 00'54 0° m 00'11 0° m	1°46'10 4.41946 AU 6.39266 AU 1°10'11 1°10'10 1°31'02 4.35329 AU	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25 -456 Apr 23 j 10:35 -456 Oct 06 j 18:42 -456 Oct 08 j 02:48 -456 Dec 05 j 03:34 -455 Apr 10 j 01:56 -455 Apr 23 j 18:35 -455 Apr 23 j 18:35	3° ¥28'41 3° ¥36'31 30° ₹≈ 28° ≈34'33 0° ¥ 18° ¥06'10 21° ¥18'17 21° ¥18'17 21° ¥45'30 24° ¥31'53 0° Ŷ 14° Ŷ50'19 9° Ŷ56'13 9° Ŷ45'18 4° Ŷ48'38 24° Ŷ05'22 27° Ŷ16'41 27° Ŷ16'43	3.97908 AU -1°-11'-36 1°11'37 5.99144 AU 4.02504 AU -1°-38'-20 0°-53'-51 0°53'53
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:13 -462 Sep 30 j 20:14 -462 Oct 13 j 11:11 -461 Feb 11 j 19:11 -461 Apr 13 j 14:49 -461 Apr 15 j 01:26 -461 Jun 15 j 02:59 -461 Oct 19 j 01:42 -461 Oct 19 j 01:23	4° m 24'24 21° m 16'34 16° m 24'13 16° m 15'20 11° m 22'17 29° m 05'57 0° Ω 1° Ω 28'35 1° Ω 53'51 1° Ω 53'52 4° Ω 40'44 21° Ω 52'24 17° Ω 00'45 16° Ω 49'43 12° Ω 00'54 0° m 00'11 0° m	1°46'10 4.41946 AU 6.39266 AU 1°10'11 1°10'10 1°31'02 4.35329 AU	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25 -456 Apr 23 j 10:35 -456 Oct 06 j 18:42 -456 Oct 08 j 02:48 -456 Dec 05 j 03:34 -455 Apr 10 j 01:56	3° ¥28'41 3° ¥36'31 30° R≈ 28° ≈34'33 0° ¥ 18° ¥06'10 21° ¥18'17 21° ¥18'17 21° ¥45'30 24° ¥31'53 0° Y 14° Y50'19 9° Y56'13 9° Y45'18 4° Y48'38 24° Y05'22 27° Y16'41 27° Y16'43 27° Y46'28	3.97908 AU -1°-11'-36 1°11'37 5.99144 AU 4.02504 AU -1°-38'-20
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:13 -462 Sep 30 j 20:14 -462 Oct 13 j 11:11 -461 Apr 13 j 14:49 -461 Apr 15 j 01:26 -461 Jun 15 j 02:59 -461 Oct 19 j 01:23 -461 Oct 29 j 18:37	4° m 24'24 21° m 16'34 16° m 24'13 16° m 15'20 11° m 22'17 29° m 05'57 0° Ω 1° Ω 28'35 1° Ω 53'51 1° Ω 53'52 4° Ω 40'44 21° Ω 52'24 17° Ω 00'45 16° Ω 49'43 12° Ω 00'54 0° m 00'11 0° m 2° m 24'45	1°46'10 4.41946 AU 6.39266 AU 1°10'11 1°10'10 1°31'02 4.35329 AU 6.30050 AU	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25 -456 Apr 23 j 10:35 -456 Oct 06 j 18:42 -456 Oct 08 j 02:48 -456 Dec 05 j 03:34 -455 Apr 10 j 01:56 -455 Apr 23 j 18:35 -455 Apr 23 j 18:35	3° ¥28'41 3° ¥36'31 30° ₹≈ 28° ≈34'33 0° ¥ 18° ¥06'10 21° ¥18'17 21° ¥18'17 21° ¥45'30 24° ¥31'53 0° Ŷ 14° Ŷ50'19 9° Ŷ56'13 9° Ŷ45'18 4° Ŷ48'38 24° Ŷ05'22 27° Ŷ16'41 27° Ŷ16'43	3.97908 AU -1°-11'-36 1°11'37 5.99144 AU 4.02504 AU -1°-38'-20 0°-53'-51 0°53'53
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:13 -462 Sep 30 j 20:14 -462 Oct 13 j 11:11 -461 Feb 11 j 19:11 -461 Apr 13 j 14:49 -461 Jun 15 j 02:59 -461 Oct 19 j 01:42 -461 Oct 29 j 18:37 -461 Oct 31 j 16:35	4° m 24'24 21° m 16'34 16° m 22'13 16° m 15'20 11° m 22'17 29° m 05'57 0° \(\Omega\) 1° \(\Omega\) 28'35 1° \(\Omega\) 53'52 4° \(\Omega\) 40'44 21° \(\Omega\) 52'24 17° \(\Omega\) 00'45 16° \(\Omega\) 49'43 12° \(\Omega\) 00'54 0° m \(\Omega\) 00'11 0° m \(\Chi\) 2° m \(\Chi\) 43	1°46'10 4.41946 AU 6.39266 AU 1°10'11 1°10'10 1°31'02 4.35329 AU 6.30050 AU 0°49'35	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25 -456 Apr 23 j 10:35 -456 Aug 09 j 11:02 -456 Oct 06 j 18:42 -456 Oct 08 j 02:48 -456 Dec 05 j 03:34 -455 Apr 23 j 18:35 -455 Apr 23 j 18:35 -455 Apr 23 j 18:38 -455 Apr 25 j 21:42	3° ¥28'41 3° ¥36'31 30° R≈ 28° ≈34'33 0° ¥ 18° ¥06'10 21° ¥18'17 21° ¥18'17 21° ¥45'30 24° ¥31'53 0° Y 14° Y50'19 9° Y56'13 9° Y45'18 4° Y48'38 24° Y05'22 27° Y16'41 27° Y16'43 27° Y46'28	3.97908 AU -1°-11'-36 1°11'37 5.99144 AU 4.02504 AU -1°-38'-20 0°-53'-51 0°53'53
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction min min elong	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 May 14 j 10:52 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:14 -462 Oct 13 j 11:11 -461 Feb 11 j 19:11 -461 Apr 13 j 14:49 -461 Apr 15 j 01:26 -461 Jun 15 j 02:59 -461 Oct 19 j 01:23 -461 Oct 29 j 18:37 -461 Oct 31 j 16:35 -461 Oct 31 j 16:35	4° m 24'24 21° m 16'34 16° m 22'13 16° m 15'20 11° m 22'17 29° m 05'57 0° \(\Omega\) 1° \(\Omega\) 28'35 1° \(\Omega\) 53'52 4° \(\Omega\) 40'44 21° \(\Omega\) 52'24 17° \(\Omega\) 00'45 16° \(\Omega\) 49'43 12° \(\Omega\) 00'54 0° m 00'11 0° m 2° m 24'45 2° m 50'43 2° m 50'43	1°46'10 4.41946 AU 6.39266 AU 1°10'11 1°10'10 1°31'02 4.35329 AU 6.30050 AU 0°49'35	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist.	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25 -456 Apr 23 j 10:35 -456 Apr 23 j 10:35 -456 Oct 06 j 18:42 -456 Oct 08 j 02:48 -456 Dec 05 j 03:34 -455 Apr 10 j 01:56 -455 Apr 23 j 18:35 -455 Apr 23 j 18:38 -455 Apr 25 j 21:42 -455 May 05 j 11:31	3° ¥28'41 3° ¥36'31 30° R≈ 28° ≈34'33 0° ¥ 18° ¥06'10 21° ¥18'17 21° ¥45'30 24° ¥31'53 0° Y 14° Y50'19 9° Y56'13 9° Y45'18 4° Y48'38 24° Y05'22 27° Y16'41 27° Y16'43 27° Y46'28 0° ¥	3.97908 AU -1°-11'-36 1°11'37 5.99144 AU 4.02504 AU -1°-38'-20 0°-53'-51 0°53'53
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:13 -462 Sep 30 j 20:14 -462 Oct 13 j 11:11 -461 Feb 11 j 19:11 -461 Apr 13 j 14:49 -461 Apr 15 j 01:26 -461 Jun 15 j 02:59 -461 Oct 19 j 01:42 -461 Oct 29 j 18:37 -461 Oct 31 j 16:35 -461 Oct 31 j 16:35 -461 Nov 13 j 06:11 -461 Dec 27 j 08:22	4° m 24'24 21° m 16'34 16° m 22'13 16° m 15'20 11° m 22'17 29° m 05'57 0° \(\Omega\) 1° \(\Omega\) 28'35 1° \(\Omega\) 28'35 1° \(\Omega\) 53'52 4° \(\Omega\) 40'44 21° \(\Omega\) 52'24 17° \(\Omega\) 00'54 0° \(\Omega\) 00'54 0° \(\Omega\) 00'54 0° \(\Omega\) 00'11 0° \(\Omega\) 2° \(\Omega\) 24'45 2° \(\Omega\) 50'43 2° \(\Omega\) 50'43 5° \(\Omega\) 40'53 15° \(\Omega\)	1°46'10 4.41946 AU 6.39266 AU 1°10'11 1°10'10 1°31'02 4.35329 AU 6.30050 AU 0°49'35	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25 -456 Apr 23 j 10:35 -456 Apr 23 j 10:35 -456 Oct 06 j 18:42 -456 Oct 08 j 02:48 -456 Dec 05 j 03:34 -455 Apr 10 j 01:56 -455 Apr 23 j 18:38 -455 Apr 25 j 21:42 -455 May 07 j 13:16 -455 Jul 17 j 21:20	3° ¥28'41 3° ¥36'31 30° R≈ 28° ≈34'33 0° ¥ 18° ¥06'10 21° ¥18'17 21° ¥45'30 24° ¥31'53 0° Y 14° Y50'19 9° Y56'13 9° Y45'18 4° Y48'38 24° Y05'22 27° Y16'41 27° Y16'43 27° Y46'28 0° ₩ 0° ₩28'46 15° ₩	3.97908 AU -1°-11'-36 1°11'37 5.99144 AU 4.02504 AU -1°-38'-20 0°-53'-51 0°53'53
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction min min elong	-463 Sep 13 j 00:32 -462 Jan 11 j 04:55 -462 Mar 12 j 18:19 -462 Mar 13 j 22:01 -462 May 14 j 10:52 -462 Sep 18 j 03:01 -462 Sep 22 j 05:37 -462 Sep 28 j 22:27 -462 Sep 30 j 20:14 -462 Oct 13 j 11:11 -461 Feb 11 j 19:11 -461 Apr 13 j 14:49 -461 Apr 15 j 01:26 -461 Jun 15 j 02:59 -461 Oct 19 j 01:23 -461 Oct 29 j 18:37 -461 Oct 31 j 16:35 -461 Oct 31 j 16:35 -461 Oct 31 j 16:37 -461 Nov 13 j 06:11	4° m 24'24 21° m 16'34 16° m 22'13 16° m 15'20 11° m 22'17 29° m 05'57 0° \(\Omega\) 1° \(\Omega\) 28'35 1° \(\Omega\) 53'52 4° \(\Omega\) 40'44 21° \(\Omega\) 52'24 17° \(\Omega\) 00'54 16° \(\Omega\) 49'43 12° \(\Omega\) 00'54 0° m 00'11 0° m \(\Omega\) 22' 45 2° m 50'43 2° m 50'43 5° m 40'53	1°46'10 4.41946 AU 6.39266 AU 1°10'11 1°10'10 1°31'02 4.35329 AU 6.30050 AU 0°49'35 0°49'35	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist.	-457 Sep 02 j 12:44 -457 Sep 01 j 13:28 -457 Oct 01 j 10:05 -457 Oct 30 j 14:09 -457 Nov 28 j 15:57 -456 Mar 03 j 19:51 -456 Mar 17 j 06:10 -456 Mar 17 j 06:11 -456 Mar 19 j 03:46 -456 Mar 30 j 19:25 -456 Apr 23 j 10:35 -456 Aug 09 j 11:02 -456 Oct 06 j 18:42 -456 Oct 08 j 02:48 -456 Dec 05 j 03:34 -455 Apr 23 j 18:35 -455 Apr 23 j 18:35 -455 Apr 23 j 18:38 -455 Apr 25 j 21:42 -455 May 05 j 11:31 -455 May 07 j 13:16	3° \cdot 28'41 3° \cdot 36'31 30° \cdot 828' \times 34'33 0° \cdot \cdot 10 21° \cdot 18'17 21° \cdot 18'17 21° \cdot 45'30 24° \cdot 31'53 0° \cdot 13 9° \cdot 750'19 9° \cdot 750'19 9° \cdot 750'13 9° \cdot 45'18 4° \cdot 48'38 24° \cdot 705'22 27° \cdot 16'43	3.97908 AU -1°-11'-36 1°11'37 5.99144 AU 4.02504 AU -1°-38'-20 0°-53'-51 0°53'53

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -455 in astronomical counting style is the year 456 BCE in historical counting style. 14°**8**51'44 0°-54'-51 -455 Nov 11 j 22:50 morning rise -449 Nov 17 j 15:31 10°ML14'17 opposition min. Earth dist. 15°**8**01'59 -455 Nov 10 i 16:46 4.13177 AU -449 Dec 09 j 04:54 15°M₀ 28°M16'37 -454 Jan 09 i 18:32 9°**8**51'57 -448 Mar 20 j 21:31 direct retrograde -448 May 20 j 20:02 -454 Mar 09 j 11:22 15°8 opposition 23°M23'40 0°40'50 -454 May 16 j 09:55 28°839'01 min. Earth dist. -448 May 22 j 01:23 4.22362 AU evening set 23°M 14'17 -448 Jul 21 j 07:16 -454 May 22 j 09:36 Π $^{\circ}0$ direct 18°M26'50 -448 Oct 23 j 06:55 0°⊀ -454 May 30 j 04:24 1°**II**45'40 0°-17'-24 6°**х** 756′47 conjunction evening set -448 Nov 23 j 11:42 -454 May 30 j 04:25 1°**Ⅱ**45'40 0°17'25 -448 Dec 04 j 21:01 minimum elong max. Earth dist. 9°**∡**³35'38 6.15899 AU max. Earth dist. -454 May 31 j 18:57 2°**Ⅱ**07'29 6.19624 AU 9°**∡**¹53'46 0°07'28 morning rise -454 Jun 12 j 22:39 4°**I**51'57 conjunction -448 Dec 06 j 04:06 -454 Oct 16 j 07:07 23°**Ⅲ**14'46 -448 Dec 06 j 04:06 9°**х** 53′46 0°07'28 retrograde minimum elong -454 Nov 14 j 03:08 -448 Dec 05 j 20:47 9°**х**⁴49'31 asc. node 21°**Ⅲ**53'36 behind sun begin opposition -454 Dec 14 j 21:03 18°**Ⅲ**13'10 0°04'41 behind sun end -448 Dec 06 j 11:25 9°**х** 58′00 min. Earth dist. -454 Dec 14 j 03:57 18°**Ⅱ**18'55 4.25966 AU morning rise -448 Dec 18 j 20:58 12°**х** 51'17 direct -453 Feb 12 j 23:54 13°II1'01 desc. node -447 Feb 13 j 17:44 24°**х** 53′59 -453 Jun 13 j 11:41 0ಂತಾ -447 Mar 21 j 00:53 0°ರ evening set -453 Jun 20 j 02:22 1°526'34 retrograde -447 Apr 25 j 12:50 1°**る**55'15 -447 May 31 j 06:19 30°R **✓** conjunction -453 Jul 03 j 16:35 4°526'13 0°23'20 opposition -447 Jun 25 j 08:20 26°**₹**59'35 0°-20'-59 minimum elong -453 Jul 03 j 16:34 4°926'12 0°23'21 min. Earth dist. -447 Jun 25 j 21:57 26°**₹**55'11 4.09630 AU max. Earth dist. -453 Jul 04 i 06:31 4°933'54 6.31855 AU direct -447 Aug 24 j 10:15 22°**₹**05'14 morning rise -453 Jul 17 i 04:52 7°524'43 -447 Nov 06 i 13:03 0°정 retrograde -453 Nov 16 j 11:23 24°953'22 evening set -447 Dec 27 j 06:06 11°**る**07'14 opposition -452 Jan 15 j 08:26 19°955'38 0°59'38 min. Earth dist. -452 Jan 15 i 07:29 19°**©**55'57 4.36701 AU conjunction -446 Jan 09 j 02:46 14°る11'04 0°-34'-25 -452 Mar 16 j 17:05 14°952'23 minimum elong -446 Jan 09 i 02:44 14°**ප**11'03 0°34'27 direct -452 Jul 09 j 04:59 $0^{\circ}\Omega$ max. Earth dist. -446 Jan 08 j 20:31 14°る07'20 6.04287 AU -452 Jul 22 j 00:39 2° **Ω**44'28 -446 Jan 22 j 01:42 17°**る**16'15 morning rise evening set -446 Mar 21 j 22:18 0°≈ -452 Aug 04 j 07:03 5° Ω37'25 0°55'46 -446 Jun 01 j 22:20 conjunction retrograde 7°≈18'53 -452 Aug 04 j 07:01 -1°-18'-33 -446 Aug 01 j 08:12 minimum elong 5°**Ω**37'23 0°55'45 opposition 2°≈19'23 -452 Aug 03 j 18:39 5°**Ω**30'39 min. Earth dist. -446 Aug 01 j 01:04 2°≈21'45 4.00263 AU max. Earth dist. 6.40268 AU -452 Aug 17 j 10:26 8°**Ω**28'49 -446 Aug 19 j 16:36 30°R₹ morning rise -446 Sep 29 j 02:52 -452 Sep 17 j 16:08 15°**Ω** 27°**ප්**26'01 direct -452 Dec 15 j 23:06 25°**Ω**26′22 -446 Nov 07 j 20:04 retrograde 0°≈ -451 Feb 14 j 03:56 20°**Q**32'05 1°35'52 -445 Jan 24 j 01:57 opposition 15°≈ min. Earth dist. -451 Feb 14 j 20:16 20°**Ω**26'48 4.42353 AU evening set -445 Jan 31 j 23:13 16°≈52'39 direct -451 Apr 17 j 12:02 15°**Ω**29'04 -451 Aug 07 j 16:54 0°m conjunction -445 Feb 14 j 02:48 20°≈02'15 -1°-4'-54 evening set -451 Aug 22 j 14:05 3° m 10'23 minimum elong -445 Feb 14 j 02:46 20°≈02'14 1°04'54 max. Earth dist. -451 Sep 03 j 01:30 5° m/40'03 6.42630 AU max. Earth dist. -445 Feb 15 j 04:00 20°≈17'25 5.97996 AU morning rise -445 Feb 27 j 09:21 23°≈13'33 -451 Sep 04 j 12:22 5° m 59'04 1°11'59 -445 Mar 28 j 14:46 0°**∀** conjunction -451 Sep 04 j 12:21 5° m 59'03 1°12'00 -445 Jul 09 j 18:47 13°**)** 45′17 minimum elong retrograde -451 Sep 17 i 07:48 8° m 46'21 -445 Sep 07 i 17:07 8°\(\frac{1}{42}\)'04 -1°-47'-16 morning rise opposition -450 Jan 15 j 14:26 25° m 39'43 -445 Sep 06 i 16:33 8°**)** 50′21 3.97896 AU retrograde min. Earth dist. -450 Mar 17 j 04:13 -445 Nov 04 i 16:46 opposition 20° m 47'31 1°45'45 direct 3°**)**(47'42 -450 Mar 18 i 09:25 -444 Mar 09 i 01:21 23°**)** 19′23 min. Earth dist. 20° m 38'10 4.41414 AU evening set direct -450 May 18 i 21:15 15° m 45'47 -450 Sep 06 i 04:26 0∘**⊽** conjunction -444 Mar 22 i 12:37 26° **₩** 31'44 -1°-10'-40 -450 Sep 22 j 10:46 3°**£**30'37 minimum elong -444 Mar 22 i 12:39 26°\dagger31'45 1°10'40 evening set max. Earth dist. -450 Oct 03 j 06:22 6.38380 AU max. Earth dist. -444 Mar 24 j 11:02 26° X 59'23 5.99650 AU 5°**£**53'38 morning rise -444 Apr 05 j 03:05 29°**)**(45'34 -450 Oct 05 j 03:34 -444 Apr 06 j 03:32 $0^{\circ}\Upsilon$ conjunction 6°**₽**18'39 1°08'24 -450 Oct 05 j 03:35 19°**Y**59'45 minimum elong 6°**₽**18'39 1°08'24 retrograde -444 Aug 14 j 11:30 morning rise -450 Oct 17 j 17:55 9°**£**05'41 min. Earth dist. -444 Oct 11 j 17:54 15°**Υ**05'57 4.03478 AU -444 Oct 13 j 03:08 -449 Feb 16 j 07:13 26°**£**21'38 opposition 14°**Y**54'37 -1°-34'00 retrograde -449 Apr 18 j 04:35 21°**≏**29'56 1°26'33 -444 Dec 10 j 04:48 9°Υ57'32 opposition direct -449 Apr 19 j 14:27 21°**≏**19′09 4.34118 AU -443 Apr 15 j 06:37 29°Y11'36 min. Earth dist. evening set -449 Jun 19 j 13:47 -443 Apr 18 j 18:20 0°8 direct 16°**≏**30'28 -449 Oct 02 j 19:27 0°M evening set -449 Oct 23 j 11:03 4°M32'23 conjunction -443 Apr 29 j 00:01 2°**8**22'36 0°-49'-30 max. Earth dist. -449 Nov 03 j 04:05 6°**M**57'34 6.28590 AU minimum elong -443 Apr 29 j 00:04 2°**8**22'38 0°49'31 max. Earth dist. -443 May 01 j 02:59 2°**8**52'13 6.08628 AU -449 Nov 05 j 01:42 7°**IL**23'27 0°45'16 morning rise -443 May 12 j 18:59 5°834'12 conjunction -449 Nov 05 j 01:45 7°M23'28 0°45'16 -443 Jun 25 j 01:56 15°8 minimum elong

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -443 in astronomical counting style is the year 444 BCE in historical counting style. retrograde 24°**8**53'36 -443 Sep 18 j 05:36 -437 Sep 15 i 16:27 0°M -443 Nov 16 i 17:33 19°**8**49'22 0°-46'-52 -437 Oct 27 j 16:19 8°M54'42 opposition evening set min. Earth dist. -443 Nov 15 j 13:16 19°**8**58'59 4.14815 AU max. Earth dist. -437 Nov 07 j 10:36 11°M21'05 6.27034 AU -442 Jan 04 j 09:05 15°R₩ -442 Jan 14 j 17:37 14°849'14 -437 Nov 09 j 07:10 11°M46'26 0°40'50 direct conjunction -442 Jan 25 j 02:35 15°₩ -437 Nov 09 j 07:13 0°40'49 minimum elong 11°M46'28 -437 Nov 21 j 21:04 14°M37'59 -442 May 05 j 11:16 $0^{\circ}\Pi$ morning rise 3°**Ⅱ**32′00 -437 Nov 23 j 12:01 15°M evening set -442 May 21 j 10:28 -436 Feb 11 j 04:19 0°⊀ conjunction -442 Jun 04 j 04:43 6°**Ⅲ**37'46 0°-11'-34 retrograde -436 Mar 25 j 12:55 2°**∡**¹48′02 minimum elong -442 Jun 04 j 04:43 6°**Ⅲ**37'46 0°11'35 -436 May 08 j 14:45 30°RML -442 Jun 03 j 22:52 6°**Ⅲ**34'30 0°33'05 behind sun begin opposition -436 May 25 j 11:54 27° M $_{5}4'49$ -442 Jun 04 j 10:34 6°**Ⅱ**41′03 behind sun end min. Earth dist. -436 May 26 j 16:12 $27^{\circ}\mathrm{ML}45^{\prime}46$ 4.20482 AU -436 Jul 25 j 18:23 max. Earth dist. -442 Jun 05 j 17:35 6°**Ⅲ**58'32 6.21424 AU direct 22° M $_{5}8'20$ morning rise -442 Jun 17 j 22:27 9°**Ⅱ**43′02 -436 Oct 04 j 10:54 0°**∡**¹ asc. node -442 Sep 23 j 12:14 26°**Ⅲ**45'45 evening set -436 Nov 27 j 22:17 11°**∡**³33'21 retrograde -442 Oct 20 j 17:53 27°**Ⅲ**57′02 max. Earth dist. -436 Dec 09 j 08:55 14°**∡**13'45 6.13852 AU opposition -442 Dec 19 j 09:50 22°**II**55'55 0°13'07 min. Earth dist. -442 Dec 18 j 17:32 23°**Ⅱ**01'24 4.27798 AU conjunction -436 Dec 10 j 15:00 14°**∡**³31'22 0°01'45 direct -441 Feb 17 j 16:06 17°**Ⅲ**53'34 minimum elong -436 Dec 10 j 15:00 14°**∡**31'22 0°01'45 -441 May 27 j 05:26 behind sun begin -436 Dec 10 j 06:59 14°**х** 26′42 evening set -441 Jun 24 i 20:40 6°9504'30 behind sun end -436 Dec 10 j 23:01 14°**х** 36′03 morning rise -436 Dec 23 i 08:42 17°**∡**30′06 conjunction -441 Jul 08 i 09:51 9°903'00 0°28'37 desc. node -436 Dec 26 j 14:42 18°**∡**15'25 minimum elong -441 Jul 08 i 09:49 9°902'59 0°28'38 -435 Feb 20 j 10:26 0°정 max. Earth dist. -441 Jul 08 j 20:25 9°908'48 6.33610 AU retrograde -435 Apr 30 j 13:21 6°**ප**44'17 -441 Jul 21 j 20:56 12°900'15 opposition -435 Jun 30 j 07:01 1°る48'10 0°-29'-34 morning rise -441 Nov 20 j 19:32 29°521'49 min. Earth dist. -435 Jun 30 j 18:40 1°る44'23 4.07570 AU retrograde -440 Jan 19 j 17:12 24°924'35 1°06'00 -435 Jul 14 j 12:18 opposition 30°R x⁷ -440 Jan 19 j 18:58 -435 Aug 29 j 04:26 min. Earth dist. 24°9524'00 4.38255 AU 26°**₹**'53'58 direct -440 Mar 21 j 07:07 19°521'18 -435 Oct 12 j 16:40 0°궁 direct -440 Jun 21 j 22:41 -434 Jan 01 j 00:34 16°**ප**02'17 0 $^{\circ}$ Ω evening set 7°**Ω**09'19 -440 Jul 26 j 12:10 evening set -434 Jan 13 j 22:20 19°る07'23 0°-39'-34 conjunction -440 Aug 08 j 17:19 -434 Jan 13 j 22:18 10°Ω01'15 0°59'03 19°る07'22 0°39'36 conjunction minimum elong -434 Jan 13 j 20:43 -440 Aug 08 j 17:17 19°**る**06'25 10°Ω01'14 0°59'03 max. Earth dist. 6.02418 AU minimum elong -440 Aug 08 j 01:38 9°**Ω**52'44 6.41490 AU -434 Jan 26 j 22:15 22°る13'52 max. Earth dist. morning rise morning rise -440 Aug 21 j 19:27 12°**Ω**51'40 -434 Mar 01 j 20:14 0°≈ -434 Jun 07 j 05:46 -440 Aug 31 j 19:01 15°**Ω** retrograde 12°≈25'29 -434 Aug 06 j 12:18 retrograde -440 Dec 20 j 03:07 29°**Ω**45'15 opposition 7°≈25'30 -1°-24'-40 opposition -439 Feb 18 j 10:32 24°Ω51'14 1°38'47 min. Earth dist. -434 Aug 06 j 02:54 7°≈28'37 3.98799 AU min. Earth dist. -439 Feb 19 j 04:26 24°**Ω**45'26 4.43183 AU direct -434 Oct 04 j 02:10 2°≈32'11 direct -439 Apr 21 j 20:55 19°**Ω**48'16 -433 Jan 06 j 16:13 15°≈ -439 Jul 21 j 17:49 0°m -433 Feb 06 j 02:00 22°**≈**03'39 evening set -439 Aug 26 j 20:32 7°m/27'13 evening set -439 Sep 07 i 05:48 9° m 55'39 -433 Feb 19 i 06:39 25°≈14'13 -1°-7'-17 max. Earth dist. 6.42994 AU conjunction -433 Feb 19 i 06:37 minimum elong 25°≈14'12 1°07'19 -439 Sep 08 i 17:51 10° m 15'19 -433 Feb 20 i 10:26 conjunction 1°12'38 max. Earth dist. 25°≈30'58 5.97057 AU -439 Sep 08 i 17:51 28°**≈**26'33 minimum elong 10° m 15'19 1°12'37 morning rise -433 Mar 04 j 14:40 morning rise -439 Sep 21 i 12:10 13° m 02'03 -433 Mar 11 i 03:39 0°₩ retrograde -438 Jan 19 i 19:21 29° m 55'06 retrograde -433 Jul 15 j 00:59 19°**米**01'31 -438 Mar 21 j 11:08 25° m 03'04 1°44'42 opposition -433 Sep 12 j 22:26 13°**¥**57'53 -1°-47'-54 opposition min. Earth dist. -438 Mar 22 j 17:49 24° m 53'15 4.41278 AU min. Earth dist. -433 Sep 11 j 18:46 14°**)**€07'14 3.97611 AU -438 May 23 j 04:52 -433 Nov 09 j 19:44 9°**)**€03'13 direct 20° Mp 01'34 direct -438 Aug 20 j 10:25 0∘თ 28°**)** 35'58 evening set -432 Mar 14 j 08:43 $0^{\circ}\Upsilon$ evening set -438 Sep 26 j 15:02 7°**-**246'17 -432 Mar 20 j 06:30 max. Earth dist. -438 Oct 07 j 07:05 10°**≙**07'41 6.37732 AU -432 Mar 27 j 21:15 1°**Y**48'41 -1°-9'-5 conjunction 1°**Y**48'42 conjunction -438 Oct 09 j 07:08 10°**♀**34'19 1°06'18 -432 Mar 27 j 21:17 1°09'05 minimum elong -438 Oct 09 j 07:10 10°**♀**34'20 1°06'17 -432 Mar 29 j 22:52 2°**Υ**18'12 6.00045 AU minimum elong max. Earth dist. -438 Oct 21 j 21:16 13°**₽**21'29 -432 Apr 10 j 12:36 5°**Y**02'45 morning rise morning rise -437 Jan 30 j 14:54 0°M retrograde -432 Aug 19 j 15:31 25°**Y**12'39 -437 Feb 20 j 17:27 retrograde 0°M41'15 min. Earth dist. -432 Oct 16 j 19:55 20°**Y**18'41 4.04483 AU -437 Mar 13 j 19:28 30°R. ← opposition -432 Oct 18 j 04:57 20°**Y**07′24 -1°-28'-49 opposition -437 Apr 22 j 14:48 25°**♀**49'25 1°21'42 direct -432 Dec 15 j 09:24 15°**Y**09'52 min. Earth dist. -437 Apr 24 j 01:36 25°**≏**38'20 4.32969 AU -431 Apr 01 j 08:48 0°8 -437 Jun 23 j 22:41 20°**♀**50'10 -431 Apr 20 j 13:15 4°820'55 direct evening set

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, page 42

•	ical year style is used: The		•	/ /		, ,	72
conjunction	-431 May 04 j 07:11	7° 8 31'30		max. Earth dist.	-426 Oct 11 j 15:38		6.36476 AU
minimum elong	-431 May 04 j 07:14	7° 8 31'31			,		
max. Earth dist.	-431 May 06 j 10:52	8° 8 01'23	6.10141 AU	conjunction	-426 Oct 13 j 15:06	15° ≙ 02'14	1°03'45
morning rise	-431 May 18 j 02:24	10° 8 42'29		minimum elong	-426 Oct 13 j 15:08	15° ≏ 02'15	1°03'46
	-431 Jun 06 j 03:31	15° 8		morning rise	-426 Oct 26 j 04:50	17° ≏ 49'48	
retrograde	-431 Sep 22 j 23:41	29° 8 52'44			-426 Dec 26 j 14:32	0° M.	
min. Earth dist.	-431 Nov 20 j 08:28	24° 8 58'23	4.16643 AU	retrograde	-425 Feb 25 j 08:38	5°M15'29	
opposition	-431 Nov 21 j 12:45	24° 8 48'46	0°-38'-26	opposition	-425 Apr 27 j 06:51	0°M23'36	1°16'11
direct	-430 Jan 19 j 15:42	19° 8 48'14		min. Earth dist.	-425 Apr 28 j 17:50	0°M12'28	4.31317 AU
	-430 Apr 16 j 22:14	Π $^{\circ}0$			-425 Apr 30 j 09:04	30° ₹ Ω	
evening set	-430 May 26 j 11:44	8° Ⅱ 26′00		direct	-425 Jun 28 j 12:16	25° ≏ 24'44	
		_			-425 Aug 24 j 12:35	0° M	
conjunction	-430 Jun 09 j 05:27	11° Ⅱ 30'43		evening set	-425 Nov 01 j 03:50	13°M33'25	
minimum elong	-430 Jun 09 j 05:27	11° Ⅱ 30'43	0°05'37		-425 Nov 07 j 12:10	15°M	
behind sun begin	-430 Jun 08 j 21:27	11° II 26'15		max. Earth dist.	-425 Nov 11 j 21:55	16°M00'23	6.25119 AU
behind sun end	-430 Jun 09 j 13:26	11° II 35'11	(22205 ATT	. ,.	425 N 12 : 10 20	1.60 M 25156	0025154
max. Earth dist.	-430 Jun 10 j 14:31		6.23385 AU	conjunction	-425 Nov 13 j 18:39	16°M25'56	
morning rise	-430 Jun 22 j 22:34	14° I I34'50		minimum elong	-425 Nov 13 j 18:41	16°M25'57	0°35'53
asc. node	-430 Aug 01 j 22:32	23° Ⅱ 02'36 0° ⑤		morning rise	-425 Nov 26 j 09:03	19° ™ 18'28 0° √	
ratra ara da	-430 Sep 13 j 18:04	0°939'41		ratra ara da	-424 Jan 16 j 03:55	0° × ° 7° × ³37'31	
retrograde	-430 Oct 25 j 06:56 -430 Dec 05 j 16:25	2 ₹35941 30°R I I		retrograde opposition	-424 Mar 30 j 12:26 -424 May 30 j 10:50	7 x ·3731 2° x ⁷ 43'57	0°24'37
opposition	-430 Dec 03 j 16.23 -430 Dec 23 j 23:06	30 KII 27°II39'03	0°21'32	min. Earth dist.	-424 May 31 j 13:18	2° х 35′28	4.18430 AU
min. Earth dist.	-430 Dec 23 j 23:00 -430 Dec 23 j 09:51	27° II 43'29	4.29678 AU	min. Earth dist.	-424 Jun 22 j 01:37	30°RM	4.16430 AU
direct	-429 Feb 22 j 11:11	22° II 36'27	4.29078 AU	direct	-424 Jul 30 j 13:12	27°M47'47	
uncet	-429 May 07 j 11:48	0°9		direct	-424 Sep 06 j 12:17	27 11 0 7 7 7 7	
evening set	-429 Jun 29 j 14:44	10°942'44		desc. node	-424 Nov 04 j 12:43	10° ∡ 107'07	
evening set	42) Juli 2) j 14.44	10 312 11		evening set	-424 Dec 02 j 15:40	16° ∡ ¹28'15	
conjunction	-429 Jul 13 j 02:57	13°5940'07	0°33'47	max. Earth dist.	-424 Dec 14 j 07:35	19° ₹ 12'22	6.11869 AU
minimum elong	-429 Jul 13 j 02:55	13°540'06	0°33'47		, , , , , , , , , , , , , , , , , , ,		
max. Earth dist.	-429 Jul 13 j 10:48	13°5944'25	6.35235 AU	conjunction	-424 Dec 15 j 09:09	19° ∡ 27'24	0°-4'-26
morning rise	-429 Jul 26 j 12:41	16° © 36'10		minimum elong	-424 Dec 15 j 09:08	19° ∡ ¹27'23	0°04'27
	-429 Oct 05 j 04:06	$0^{\circ}\Omega$		behind sun begin	-424 Dec 15 j 01:16	19° ∡ ¹22'47	
retrograde	-429 Nov 25 j 01:53	3° £ 51′32		behind sun end	-424 Dec 15 j 17:01	19° ∡ ³32′00	
	-428 Jan 15 j 18:21	30°R∽		morning rise	-424 Dec 28 j 03:29	22° ∡ 27′18	
opposition	-428 Jan 24 j 02:20	28° © 54'47	1°12'06		-423 Jan 30 j 16:04	0°ರ	
min. Earth dist.	-428 Jan 24 j 05:43	28°553'41	4.39520 AU	retrograde	-423 May 05 j 21:24	11° ප 51'09	
direct	-428 Mar 25 j 19:13	23° © 51'29		opposition	-423 Jul 05 j 12:41	6° る 54'35	0°-38'-30
	-428 Jun 01 j 14:03	0 $^{\circ}\Omega$		min. Earth dist.	-423 Jul 05 j 21:48	6° る 51'37	4.05850 AU
evening set	-428 Jul 31 j 00:32	11° Ω 36'46		direct	-423 Sep 03 j 05:02	2° ට 00'41	
max. Earth dist.	-428 Aug 12 j 08:50	14° Ω 17'15	6.42284 AU	evening set	-422 Jan 06 j 01:30	21° ප 13'40	
						_	
conjunction	-428 Aug 13 j 04:23		1°02'07	conjunction	-422 Jan 18 j 23:59	24° ろ 19'42	0°-44'-44
minimum elong	-428 Aug 13 j 04:20	14° Ω 27'51	1°02'07	minimum elong	-422 Jan 18 j 23:57	24°る19'40	0°44'44
	-428 Aug 15 j 15:31	15° Ω		max. Earth dist.	-422 Jan 19 j 01:47	24° る 20'46	6.01127 AU
morning rise	-428 Aug 26 j 05:16	17° Ω 17'28		morning rise	-422 Feb 01 j 01:09	27° る 27'15	
. 1	-428 Nov 01 j 04:50	0° M)			-422 Feb 11 j 19:29	0° ≈	
retrograde	-428 Dec 24 j 10:47	4°Mp08'48 30°R Ω		ratra ara da	-422 May 01 j 05:58	15° ≈	
	-427 Feb 16 j 23:33		1041110	retrograde	-422 Jun 12 j 14:41	17°≈45'01	
opposition min. Earth dist.	-427 Feb 22 j 18:55 -427 Feb 23 j 15:50	29° Ω 15'12 29° Ω 08'27	1°41'19 4.43468 AU	opposition	-422 Jul 25 j 05:24 -422 Aug 11 j 21:02	15°R ≈ 12° ≈ 44'25	-1°-30'-23
direct	-427 Apr 26 j 08:24	24° Ω 12'23	4.43400 AU	min. Earth dist.	-422 Aug 11 j 27:02	12 ≈44 23 12°≈48'56	3.98120 AU
direct	-427 Jul 01 j 07:33	0°M)		direct	-422 Oct 09 j 06:43	7°≈51'03	3.98120 AU
evening set	-427 Aug 31 j 05:17	11° m p 50'54		direct	-422 Dec 16 j 23:04	7 ≈31 03 15°≈	
max. Earth dist.	-427 Sep 11 j 10:14	14° M) 17'13	6.42724 AU	evening set	-421 Feb 11 j 08:39	27°≈24'02	
max. Earth dist.	427 Sep 11 j 10.14	14 hg/1/13	0.42/24/10	evening set	-421 Feb 22 j 04:14	0° ∺	
conjunction	-427 Sep 13 j 01:41	14° m 38'45	1°12'57		.21100 22 1 04.14	~ /\	
minimum elong	-427 Sep 13 j 01:41	14° m) 38'44	1°12'56	conjunction	-421 Feb 24 j 14:30	0°) 35′06	-1°-9'-16
morning rise	-427 Sep 25 j 19:14	17° m) 25'16	- -	minimum elong	-421 Feb 24 j 14:29	0°) 35′05	1°09'17
5	-427 Nov 30 j 11:54	0∘ ⊽		max. Earth dist.	-421 Feb 25 j 23:41	0°) 55′06	5.97062 AU
retrograde	-426 Jan 24 j 05:00	4° ≙ 20'20		morning rise	-421 Mar 09 j 23:28	3°) (47'51	
-	-426 Mar 21 j 18:51	30°R, Mp		retrograde	-421 Jul 20 j 09:17	24°) 21′31	
opposition	-426 Mar 25 j 21:59	29° m 28'23	1°43'09	min. Earth dist.	-421 Sep 17 j 00:07	19° ∺ 27'10	3.98314 AU
min. Earth dist.	-426 Mar 27 j 05:39	29° m 18'16	4.40485 AU	opposition	-421 Sep 18 j 04:46	19°) (17′27	-1°-47'-40
direct	-426 May 27 j 15:05	24° m 27'07		direct	-421 Nov 15 j 03:06	14°) 22′25	
	-426 Jul 30 j 18:14	0∘ ত			-420 Mar 03 j 01:09	0° Υ	
evening set	-426 Sep 30 j 23:18	12° ≙ 13'52		evening set	-420 Mar 19 j 16:25	3° Y 52′20	

Planetary Phenomena of Jupiter from -900 through -400 (UT), Astrodienst AG 7-Dez-2017 14:46, Attention, astronomical year style is used: The year -420 in astronomical counting style is the year 421 BCE in historical counting style. 7°**Υ**'04'52 -1°-7'-1 -420 Apr 02 i 05:54 -415 Jun 01 i 10:27 0°m conjunction minimum elong -420 Apr 02 j 05:56 7°**Y**′04'53 1°07'02 -415 Sep 04 j 13:11 16° Mp 12'15 evening set max. Earth dist. -420 Apr 04 j 09:49 7°**Y**35'36 6.01364 AU max. Earth dist. -415 Sep 15 j 15:24 18° Mp 37'26 6.41944 AU -420 Apr 15 j 22:04 10°**Y**18'38 morning rise -420 Aug 10 j 06:44 0°8 -415 Sep 17 j 08:43 19° m 00'03 1°12'51 conjunction -415 Sep 17 j 08:43 1°12'51 -420 Aug 24 j 14:32 0°820'17 retrograde minimum elong 19° Mp 00'03 -415 Sep 30 j 01:33 -420 Sep 07 j 19:39 30°R℃ morning rise 21° Mp 46'36 -420 Oct 21 j 18:34 25°**Υ**26'34 4.06268 AU -415 Nov 08 j 21:37 min. Earth dist. 0∘ଫ 8°**≏**45'27 -420 Oct 23 j 04:23 25°**Y**15′01 -414 Jan 28 j 16:26 opposition -1°-23'-5 retrograde 20°**Y**17′02 direct -420 Dec 20 j 10:27 opposition -414 Mar 30 j 09:31 3°**₽**53'42 1°41'03 4.39226 AU -419 Mar 13 j 15:08 0°8 min. Earth dist. -414 Mar 31 j 19:00 3°**£**43'01 -419 Apr 25 j 16:54 9°**8**22'29 evening set -414 May 04 j 12:43 30°R, Mp -414 Jun 01 j 02:33 direct 28° m 52'47 conjunction -419 May 09 j 11:00 12°**8**32'13 0°-39'-43 -414 Jun 28 j 16:49 0∘<u>ଫ</u> minimum elong -419 May 09 j 11:02 12°832'14 0°39'43 evening set -414 Oct 05 j 08:23 16°**-**42'59 max. Earth dist. -419 May 11 j 11:45 13°**8**00'16 6.12219 AU max. Earth dist. -414 Oct 15 j 23:12 19°**≙**04'43 6.34835 AU -419 May 20 j 04:20 15°8 morning rise -419 May 23 j 06:19 15°842'15 conjunction -414 Oct 17 j 23:52 19°**♀**31'53 1°00'50 -419 Aug 02 j 12:48 $\Pi^{\circ}0$ minimum elong -414 Oct 17 j 23:54 19°**£**31'54 1°00'49 22°**₽**20'06 retrograde -419 Sep 27 j 14:46 4°**Ⅱ**41'59 morning rise -414 Oct 30 j 13:36 -419 Nov 23 j 12:38 30°R\ -414 Dec 05 j 15:42 0°M min. Earth dist. -419 Nov 25 i 02:37 29°847'07 4.18778 AU retrograde -413 Mar 02 i 01:57 9°M53'06 opposition -419 Nov 26 i 04:27 29°**8**38'20 0°-30'-4 opposition -413 May 02 j 00:43 5°M01'04 1°10'08 direct -418 Jan 24 i 12:51 24°837'24 min. Earth dist. -413 May 03 j 10:21 4°M50'21 4.29406 AU -413 Jul 03 j 02:15 -418 Mar 26 i 07:55 $0^{\circ}\Pi$ direct 0°ML02'38 -418 May 31 j 08:37 13°**Ⅱ**09'26 -413 Oct 22 j 03:11 15°M evening set -418 Jun 11 j 19:34 15°**Ⅱ**42'40 -413 Nov 05 j 16:48 18°ML16'11 asc. node evening set max. Earth dist. -413 Nov 16 j 14:49 20°M46'02 6.23116 AU -418 Jun 14 j 01:59 16°II13'05 0°00'15 conjunction -418 Jun 14 j 01:58 16°II13'04 0°00'16 -413 Nov 18 j 07:57 21°ML09'39 0°30'39 minimum elong conjunction -418 Jun 13 j 17:40 16°**Ⅱ**08'28 -413 Nov 18 j 07:58 behind sun begin minimum elong 21°M 09'40 0°30'39 -418 Jun 14 j 10:15 -413 Nov 30 j 22:36 behind sun end 16°**Ⅲ**17'40 morning rise 24°M03'11 16°**耳**30′14 6.25416 AU -418 Jun 15 j 08:43 -413 Dec 27 j 17:25 max. Earth dist. 0°**∡** -418 Jun 27 j 18:07 -412 Apr 04 j 14:58 19°**Ⅱ**15'55 12°**∡**31'34 morning rise retrograde -418 Aug 19 j 03:32 -412 Jun 04 j 12:05 0°15'50 0ಂತಾ opposition 7°**∡**³37'44 -412 Jun 05 j 12:48 -418 Oct 29 j 14:35 min. Earth dist. retrograde 7°9512'01 7°**尽**29'48 4.16479 AU 2°511'57 0°29'30 -418 Dec 28 j 08:33 -412 Aug 04 j 10:12 opposition direct 2°**∡**°42′01 -412 Sep 13 j 03:56 min. Earth dist. -418 Dec 27 j 21:09 2°515'45 4.31438 AU desc. node 5°**х**¹07'24 -417 Jan 14 j 10:20 30°RⅡ evening set -412 Dec 07 j 10:52 21°**х** 27′20 direct -417 Feb 27 j 00:37 27°**Ⅲ**09'12 max. Earth dist. -412 Dec 19 j 05:57 24°**х¹**13'59 6.10143 AU -417 Apr 12 j 02:08 0ಂತಾ -417 Jul 04 j 05:17 15°5511'32 conjunction -412 Dec 20 j 04:46 24°**∡**¹27'27 0°-10'-32 evening set -412 Dec 20 j 04:45 24°**₹**'27'26 0°10'35 minimum elong -417 Jul 17 j 16:17 18°907'54 0°38'35 behind sun begin -412 Dec 19 j 22:27 24°**∡**¹23'44 conjunction -417 Jul 17 j 16:14 18°9507'53 0°38'35 behind sun end -412 Dec 20 j 11:03 24°**∡**³31′08 minimum elong -417 Jul 17 i 18:16 18°908'59 -411 Jan 02 i 00:03 27°**∡** 28′29 max. Earth dist. 6.36582 AU morning rise -417 Jul 31 i 00:57 21°902'55 -411 Jan 12 j 20:28 morning rise 0°정 -417 Sep 12 j 19:07 $0^{\circ}\Omega$ retrograde -411 May 11 i 03:57 17°る00'53 -417 Nov 29 j 08:33 -411 Jul 10 j 19:13 retrograde 8°Ω13'29 opposition 12°る03'45 0°-47'-13 -416 Jan 28 j 09:11 3°Ω17'16 1°17'38 min. Earth dist. -411 Jul 11 j 00:03 12°る02'10 4.04520 AU opposition min. Earth dist. -416 Jan 28 i 16:17 3°Ω14'56 4.40383 AU direct -411 Sep 08 j 05:59 7°る10'03 evening set -416 Feb 24 j 19:45 30°R95 -410 Jan 11 j 03:04 26°**පි**26'15 direct -416 Mar 30 j 06:33 28°913'56 -416 May 04 j 01:54 $0^{\circ}\Omega$ conjunction -410 Jan 24 j 02:31 29°る33'02 0°-49'-33 -410 Jan 24 j 02:29 0°49'34 -416 Jul 30 j 22:28 15°€ minimum elong 29°る33'00 -416 Aug 04 j 10:09 -410 Jan 24 j 10:19 evening set 15°**Ω**57'49 max. Earth dist. 29°る37'43 6.00305 AU -410 Jan 25 j 23:22 0°≈ -416 Aug 17 j 13:03 18°**Ω**48'23 1°04'46 -410 Feb 06 j 04:31 2°≈41'21 conjunction morning rise -416 Aug 17 j 13:01 18°**Ω**48'22 1°04'46 -410 Apr 03 j 06:10 minimum elong 15°≈ -416 Aug 16 j 14:32 18°**Ω**36′09 6.42584 AU retrograde -410 Jun 18 j 00:31 max. Earth dist. 23°≈03'08 -416 Aug 30 j 12:43 21°**Ω**37'24 -410 Aug 17 j 04:48 morning rise opposition 18°**≈**01'58 -1°-35'-19 -416 Oct 10 j 12:50 0°m min. Earth dist. -410 Aug 16 j 13:20 18°≈07'08 3.97903 AU retrograde -416 Dec 28 j 16:17 8° m 28'22 -410 Sep 10 j 19:22 15°R≈ opposition -415 Feb 27 j 02:25 3° Mp 35'06 1°43'17 direct -410 Oct 14 j 13:04 13°≈08'30 min. Earth dist. -415 Feb 28 j 00:36 3° Mp 27'57 4.43221 AU -410 Nov 16 j 22:55 15°≈ -415 Mar 30 j 04:28 30°R€ -409 Feb 05 j 06:00 0°**)**

direct

-415 Apr 30 j 16:09

28°**£**32′29

-409 Feb 16 j 14:18

evening set

2°**)**41'27

D 1	0.7	000.1	1 400 77		G = D = 0.1=11	4.6	
•			`	/ /	G 7-Dez-2017 14:4	, ,	2 44
					410 BCE in historical co		
conjunction	-409 Mar 01 j 21:09	5° H 52'48	-1°-10'-41	morning rise	-404 Sep 03 j 20:55	26° Ω 00'10	
minimum elong max. Earth dist.	-409 Mar 01 j 21:08 -409 Mar 03 j 09:52		5.97434 AU	retrograde	-404 Sep 22 j 16:45 -403 Jan 02 j 01:13	0°m) 12°m)51'16	
morning rise	-409 Mar 15 j 07:15	9° ₩ 05'51	3.97434 AU	opposition	-403 Mar 03 j 11:17	7° Mp 58'19	1°44'43
retrograde	-409 Jul 25 j 13:55	29°\(\frac{1}{3}31		min. Earth dist.	-403 Mar 04 j 12:17	7° Mg 50'16	4.42851 AU
min. Earth dist.	-409 Sep 22 j 01:59		3.99261 AU	direct	-403 May 05 j 03:11	2° Mp 55'51	4.42631 AC
opposition	-409 Sep 23 j 08:41	24°) 32'17		evening set	-403 Sep 08 j 21:55	20° m 36'55	
direct	-409 Nov 20 j 06:08	19° ¥ 36'55		max. Earth dist.	-403 Sep 19 j 22:24	23° m 01'29	6.41125 AU
	-408 Feb 13 j 12:27	0° Y			1 3	•	
evening set	-408 Mar 24 j 22:02	9° Υ '03'33		conjunction	-403 Sep 21 j 16:51	23° Mp 24'46	1°12'21
				minimum elong	-403 Sep 21 j 16:51	23° m 24'46	1°12'21
conjunction	-408 Apr 07 j 12:14	12° Y 15'47	-1°-4'-28	morning rise	-403 Oct 04 j 08:58	26° Mp 11'23	
minimum elong	-408 Apr 07 j 12:16	12° Y 15'49	1°04'29		-403 Oct 22 j 02:53	0∘ ⊽	
max. Earth dist.	-408 Apr 09 j 15:33	12° Y 46'04	6.02774 AU	retrograde	-402 Feb 02 j 03:27	13° ≏ 14'02	
morning rise	-408 Apr 21 j 05:09	15° Y 29'12		opposition	-402 Apr 03 j 22:26	8° ჲ 22'20	1°38'20
	-408 Jun 30 j 05:51	0° 8		min. Earth dist.	-402 Apr 05 j 07:24	8° ≏ 11'49	4.38034 AU
retrograde	-408 Aug 29 j 11:03	5° 8 22'45		direct	-402 Jun 05 j 13:03	3° ≏ 21'46	
min. Earth dist.	-408 Oct 26 j 16:36	0° 8 28'45	4.07978 AU	evening set	-402 Oct 09 j 18:13	21° ≏ 14'49	
opposition	-408 Oct 28 j 01:25		-1°-16'-51	max. Earth dist.	-402 Oct 20 j 10:04	23° △ 37'40	6.33385 AU
1.	-408 Oct 30 j 04:48	30° ₹ Υ		. ,.	402.0	240 0 0 411 1	0057122
direct	-408 Dec 25 j 11:05	25° Y 19'05		conjunction	-402 Oct 22 j 09:23	24° Ω 04'11	0°57'32
. ,	-407 Feb 18 j 17:58	0°8		minimum elong	-402 Oct 22 j 09:26	24° Ω 04'12	0°57'31
evening set	-407 Apr 30 j 18:33	14° 8 19'39		morning rise	-402 Nov 03 j 22:59	26° £ 52'57 0° IL	
	-407 May 03 j 17:18	13 0		retrograde	-402 Nov 18 j 02:38 -401 Mar 06 j 21:22	14°M32'34	
conjunction	-407 May 14 j 13:01	17° 8 28'40	0°-34'-32	opposition	-401 May 06 j 19:41	9°M40'24	1°03'36
minimum elong	-407 May 14 j 13:03	17° 8 28'41		min. Earth dist.	-401 May 08 j 05:06	9°M29'46	4.27785 AU
max. Earth dist.	-407 May 16 j 13:00	17° 8 56'10	6.14103 AU	direct	-401 Jul 07 j 19:03	4°M42'23	4.27763 AO
morning rise	-407 May 28 j 08:04	20° 8 37'47	0.11103710	uncet	-401 Oct 04 j 12:04	15°M	
morning 115¢	-407 Jul 11 j 00:00	0°II		evening set	-401 Nov 10 j 06:09	22°M59'31	
retrograde	-407 Oct 02 j 04:40	9° Ⅱ 28'00		max. Earth dist.	-401 Nov 21 j 05:46	25°M30'53	6.21478 AU
opposition	-407 Nov 30 j 18:27	4° Ⅱ 24'49	0°-21'-38		,		
min. Earth dist.	-407 Nov 29 j 18:16	4° Ⅱ 33'00	4.20650 AU	conjunction	-401 Nov 22 j 21:26	25°M53'44	0°25'15
	-406 Jan 10 j 01:34	30° ₹ 8		minimum elong	-401 Nov 22 j 21:27	25°M53'45	0°25'16
direct	-406 Jan 29 j 07:01	29° 8 23'35		morning rise	-401 Dec 05 j 12:37	28°M48'09	
	-406 Feb 17 j 17:27	Π °0			-401 Dec 10 j 18:28	0° ∡ 7	
asc. node	-406 Apr 21 j 18:06	8° Ⅲ 32'55		retrograde	-400 Apr 09 j 14:54	17° ∡ ¹24'24	
evening set	-406 Jun 05 j 04:34	17° Ⅱ 51′02		opposition	-400 Jun 09 j 12:40	12° ∡ °30′08	0°07'01
				min. Earth dist.	-400 Jun 10 j 09:50	12° ₹ 23'19	4.14950 AU
conjunction	-406 Jun 18 j 21:07	20° Ⅱ 53'39	0°06'02	desc. node	-400 Jul 23 j 20:12	8° ∡ ¹00'27	
minimum elong	-406 Jun 18 j 21:08	20° Ⅲ 53'39	0°06'03	direct	-400 Aug 09 j 05:27	7° ∡ ³34'45	
behind sun begin	-406 Jun 18 j 13:15	20° Ⅱ 49'17		evening set	-400 Dec 12 j 05:14	26° ₹ 23'27	
behind sun end	-406 Jun 19 j 05:01	20° Ⅱ 58'02	6 0 T 1 0 4 4 X X		10075 01:00.15	200 72420	00 161 20
max. Earth dist.	-406 Jun 19 j 22:35	21° Ⅱ 07'49	6.27124 AU	conjunction	-400 Dec 24 j 23:45	29° ₹24'20	0°-16'-29
morning rise	-406 Jul 02 j 12:38 -406 Jul 30 j 21:11	23°∏55'28 0°©		minimum elong max. Earth dist.	-400 Dec 24 j 23:43 -400 Dec 24 j 06:00	29° х 24′20 29° х 13′51	0°16'30 6.08870 AU
retrograde	-406 Nov 02 j 23:21	11°9544'12		max. Earth dist.	-400 Dec 27 j 11:58	0°る	0.08870 AU
opposition	-405 Jan 01 j 17:53	6°9344'39	0°37'15		100 Dec 2/ J 11.36	v O	
min. Earth dist.	-405 Jan 01 j 09:33	6°9547'26	4.32860 AU				
direct	-405 Mar 03 j 14:51	1°9541'40					
evening set	-405 Jul 08 j 19:22	19°5541'06					
<i>5</i>							
conjunction	-405 Jul 22 j 05:27	22° © 36'37	0°43'09				
minimum elong	-405 Jul 22 j 05:25	22° © 36'36	0°43'10				
max. Earth dist.	-405 Jul 22 j 04:50	22°536'17	6.37614 AU				
morning rise	-405 Aug 04 j 12:44	25° © 30'42					
	-405 Aug 25 j 15:31	$0^{\circ}\Omega$					
retrograde	-405 Dec 03 j 14:18	12° Ω 37′29					
opposition	-404 Feb 01 j 16:36	7° Ω 41'46	1°22'46				
min. Earth dist.	-404 Feb 02 j 01:27	7° Ω 38'52	4.40980 AU				
direct	-404 Apr 03 j 16:14	2° Ω 38′28					
_	-404 Jul 14 j 07:31	15° Ω					
evening set	-404 Aug 08 j 20:35	20° Ω 21'35					
	404 4 21:22:15	220 01112	1007104				
conjunction	-404 Aug 21 j 22:12	23°Ω11'36	1°07'04				
minimum elong	-404 Aug 21 j 22:10	23° Q 11'35	1°07'03 6.42688 AU				

max. Earth dist.

-404 Aug 20 j 19:19 22°**Ω**56'59 6.42688 AU

Planetary Pheno	omena of Jupiter fr	om -400 th	rough 100 (UT), Astrodienst AC	G 7-Dez-2017 14:4	8, page	1
Attention, astronom	nical year style is used: T	he year -400 in	n astronomical cour	nting style is the year	401 BCE in historical co	unting style.	
retrograde	-400 Apr 09 j 14:54	17° ∡ ¹24'24		asc. node	-394 Mar 02 j 15:46	5° Ⅱ 16′09	
opposition	-400 Jun 09 j 12:40	12° ∡ ′30′08	0°07'01	evening set	-394 Jun 09 j 22:34	22° Ⅲ 27'58	
min. Earth dist.	-400 Jun 10 j 09:50	12° ₹ ′23'19	4.14950 AU				
desc. node	-400 Jul 23 j 20:12	8° ₮ 00'27		conjunction	-394 Jun 23 j 14:40	25° Ⅱ 29'48	0°11'36
direct	-400 Aug 09 j 05:27	7° ∡ ³34'45		minimum elong	-394 Jun 23 j 14:39	25° Ⅱ 29'48	0°11'36
evening set	-400 Dec 12 j 05:14	26° ∡ ¹23'27		behind sun begin	-394 Jun 23 j 08:51	25° Ⅱ 26'35	
				behind sun end	-394 Jun 23 j 20:27	25° Ⅲ 33′00	
conjunction	-400 Dec 24 j 23:45	29° х 24'20	0°-16'-29	max. Earth dist.	-394 Jun 24 j 13:19	25° Ⅱ 42'23	6.28483 AU
minimum elong	-400 Dec 24 j 23:43	29° х 24'20	0°16'30	morning rise	-394 Jul 07 j 05:09	28° Ⅲ 30′39	
max. Earth dist.	-400 Dec 24 j 06:00	29° ∡ 13'51	6.08870 AU		-394 Jul 14 j 00:13	0°ಅ	
	-400 Dec 27 j 11:58	0°ರ		retrograde	-394 Nov 07 j 07:51	16° © 13'27	
morning rise	-399 Jan 06 j 19:40	2° පි 26'14		opposition	-393 Jan 06 j 02:17	11° © 14'32	0°44'38
retrograde	-399 May 16 j 10:18	22° る 05'21		min. Earth dist.	-393 Jan 05 j 20:15	11° © 16'33	4.33970 AU
opposition	-399 Jul 15 j 23:48	17° ろ 07'39	0°-55'-21	direct	-393 Mar 08 j 02:57	6° © 11'31	
min. Earth dist.	-399 Jul 16 i 02:34	17° る 06'45	4.03615 AU	evening set	-393 Jul 13 j 08:56	24°909'04	
direct	-399 Sep 13 j 07:39	12° る 14'07		evening sec	5,5 var 15 j 00.50	2. 2000.	
	-398 Jan 09 j 15:40	0° ≈		conjunction	-393 Jul 26 j 17:50	27° © 03'49	0°47'24
evening set	-398 Jan 16 j 02:27	1°≈32'02		minimum elong	-393 Jul 26 j 17:48	27° © 03'47	0°47'25
evening set	-576 Jan 10 j 02.27	1 ~32 02		max. Earth dist.	-393 Jul 26 j 12:25	27° © 00'51	6.38391 AU
conjunction	-398 Jan 29 j 02:43	4° ≈ 39'23	0°-53'-50	morning rise	-393 Aug 09 j 00:07	29°957'08	0.56571 AC
minimum elong		4°≈39'23	0°53'51	morning rise	-393 Aug 09 j 05:24	0°Ω	
•	-398 Jan 29 j 02:40				-393 Nov 01 j 16:21		
max. Earth dist.	-398 Jan 29 j 14:14	4°≈46'18	5.99837 AU	. 1	,	15° Ω	
morning rise	-398 Feb 11 j 05:48	7°≈48'20		retrograde	-393 Dec 07 j 21:33	17° Ω 01'05	
. 1	-398 Mar 14 j 09:43	15° ≈		*.*	-392 Jan 13 j 03:15	15°RΩ	1007100
retrograde	-398 Jun 23 j 05:21	28° ≈ 12'28		opposition	-392 Feb 06 j 00:10	12° Ω 05'49	1°27'22
opposition	-398 Aug 22 j 08:59	23°≈10'49	-1°-39'-19	min. Earth dist.	-392 Feb 06 j 11:34	12° Ω 02'05	4.41409 AU
min. Earth dist.	-398 Aug 21 j 14:30	23° ≈ 17'00	3.97956 AU	direct	-392 Apr 08 j 02:35	7° Ω 02'34	
direct	-398 Oct 19 j 14:11	18° ≈ 17'13			-392 Jun 25 j 17:11	15° Ω	
	-397 Jan 18 j 16:37	0° ∀		evening set	-392 Aug 13 j 06:24	24° Ω 45′13	
evening set	-397 Feb 21 j 16:54	7° ¥ 49'25		max. Earth dist.	-392 Aug 25 j 03:22	27° Ω 19'43	6.42733 AU
conjunction	-397 Mar 07 j 00:41	11°) 00′57	-1°-11'-29	conjunction	-392 Aug 26 j 07:09	27° Ω 34'50	1°08'57
minimum elong	-397 Mar 07 j 00:40	11° ¥ 00'57	1°11'29	minimum elong	-392 Aug 26 j 07:08	27° Ω 34'49	1°08'57
max. Earth dist.	-397 Mar 08 j 15:08	11°) 24'01	5.97973 AU		-392 Sep 06 j 10:17	0° m)	
morning rise	-397 Mar 20 j 11:47	14°) (14'10	0.57575110	morning rise	-392 Sep 08 j 04:40	0° mg 22'55	
morning rise	-397 Jun 04 j 15:14	0°Υ		retrograde	-391 Jan 06 j 08:16	17° m) 14'22	
retrograde	-397 Jul 30 j 14:00	4° Υ 41'32		opposition	-391 Mar 07 j 20:20	12° m) 21'41	1°45'31
retrograde	-397 Sep 25 j 12:28	30° ₹		min. Earth dist.	-391 Mar 08 j 21:52		4.42524 AU
min. Earth dist.	-397 Sep 23 j 12:28	29°) (47'27	4.00225 AU	direct	-391 May 09 j 12:08	7° mg 19'28	4.42324 AO
opposition	-397 Sep 27 j 01:20	29° H 36'54		evening set	-391 Sep 13 j 06:10	25° mp 01'22	
direct	-397 Nov 25 j 07:01	24°) (41'07	-1 -44 -41	max. Earth dist.	-391 Sep 24 j 04:00	27° m/24'50	6.40428 AU
direct	-	24 γ (4107		max. Earth dist.	-391 Sep 24 j 04.00	27 11/24 30	0.40428 AU
	-396 Jan 22 j 17:50	0° γ 14° Υ 04'49		:	201 9 26:00:12	279 m 40100	1011125
evening set	-396 Mar 30 j 00:10	14 1 04 49		conjunction	-391 Sep 26 j 00:12	27° Mp 49'09	1°11'25
	206 4 12:15:22	1700016152	10 11 21	minimum elong	-391 Sep 26 j 00:13	27° m/49'09	1°11'25
conjunction	-396 Apr 12 j 15:22	17°Υ16'53			-391 Oct 05 j 22:22	0∘ ʊ	
minimum elong	-396 Apr 12 j 15:25	17°Υ16'55	1°01'31	morning rise	-391 Oct 08 j 15:51	0° Ω 35'50	
max. Earth dist.	-396 Apr 14 j 19:59	17° Y 47'49	6.04086 AU	retrograde	-390 Feb 06 j 16:22	17° Ω 41'54	
morning rise	-396 Apr 26 j 08:46	20° Y ′29'56		opposition	-390 Apr 08 j 11:10	12° ≏ 50'12	1°35'02
	-396 Jun 08 j 09:48	0° 8		min. Earth dist.	-390 Apr 09 j 21:24	12° ≏ 39'18	4.36987 AU
retrograde	-396 Sep 03 j 05:55	10° 8 15'55		direct	-390 Jun 10 j 01:36	7° ≏ 49'54	
min. Earth dist.	-396 Oct 31 j 11:16		4.09490 AU	evening set	-390 Oct 14 j 02:57	25° ≏ 45'10	
opposition	-396 Nov 01 j 19:00	5° 8 10'57	-1°-10'-18	max. Earth dist.	-390 Oct 24 j 19:04	28° ഫ 08'36	6.32051 AU
direct	-396 Dec 30 j 07:12	0° 8 12'08					
	-395 Apr 17 j 04:20	15° 8		conjunction	-390 Oct 26 j 18:01	28° ≙ 34'59	0°53'54
evening set	-395 May 05 j 17:21	19° 8 08'52		minimum elong	-390 Oct 26 j 18:03	28° ≏ 35′01	0°53'53
					-390 Nov 02 j 01:12	0° M	
conjunction	-395 May 19 j 11:50	22° 8 17'15	0°-29'-17	morning rise	-390 Nov 08 j 07:33	1° M 24'17	
minimum elong	-395 May 19 j 11:52	22° 8 17'16	0°29'17		-389 Jan 17 j 00:38	15° ™	
max. Earth dist.	-395 May 21 j 07:58		6.15688 AU	retrograde	-389 Mar 11 j 13:49	19° M 10'11	
morning rise	-395 Jun 02 j 06:59	25° 8 25'39		-	-389 May 06 j 00:24	15°RM	
	-395 Jun 22 j 21:19	$\Pi^{\circ}0$		opposition	-389 May 11 j 13:21	14° M .17'47	0°56'41
retrograde	-395 Oct 06 j 16:03	14° Ⅱ 07'54		min. Earth dist.	-389 May 12 j 20:49	14° ™ 07'45	4.26228 AU
min. Earth dist.	-395 Dec 04 j 08:03		4.22165 AU	direct	-389 Jul 12 j 08:06	9° ™ 20'06	
opposition	-395 Dec 05 j 06:22	9° Ⅱ 05'12			-389 Sep 13 j 18:12	15° ™	
direct	-394 Feb 02 j 22:54	4° Ⅱ 03'39	-	evening set	-389 Nov 14 j 18:11	27° M 40'47	
				-0			

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -389 in astronomical counting style is the year 390 BCE in historical counting style. -389 Nov 24 i 19:51 0°×7 minimum elong -383 May 24 j 14:19 27°**8**13'41 0°23'39 -389 Nov 25 j 20:37 0°**∡**14'19 6.19817 AU max. Earth dist. -383 May 26 j 09:01 27°**8**37'58 6.17376 AU max. Earth dist. -383 Jun 05 j 19:29 $\Pi^{\circ}0$ -389 Nov 27 j 09:42 0°**х** 35'46 0°19'43 morning rise -383 Jun 07 j 09:02 0°**I**I21'10 conjunction -389 Nov 27 j 09:43 minimum elong 0°**∡**35'47 0°19'42 -383 Oct 11 j 07:39 18°**Ⅲ**54'41 retrograde -389 Dec 10 j 01:19 3°**х** 31′05 -383 Dec 09 j 21:07 13°**I**52'29 0°-4'-42 morning rise opposition -388 Apr 14 j 16:13 22°**х** 15′39 min. Earth dist. -383 Dec 09 j 00:55 13°**Д**59'18 4.23939 AU retrograde -388 Jun 02 j 19:06 -382 Jan 09 j 19:39 desc. node 18°**₹**′50′00 asc. node 10°**Ⅱ**11′06 -388 Jun 14 j 12:24 opposition 17°**∡** 20'57 0°-1'-51 direct -382 Feb 07 j 18:33 8°**Ⅱ**50'43 min. Earth dist. -388 Jun 15 j 08:24 17°**∡**14'30 4.13282 AU evening set -382 Jun 14 j 19:13 27°**Ⅲ**10′38 direct -388 Aug 14 j 01:35 12°**₹**25'51 -382 Jun 27 j 13:53 0ಂತಾ -388 Dec 11 j 08:44 0°궁 -388 Dec 16 j 22:50 1°る18'40 -382 Jun 28 j 10:28 0°511'23 0°17'14 evening set conjunction minimum elong -382 Jun 28 j 10:26 0°ഇ11'22 0°17'14 conjunction -388 Dec 29 j 18:00 4°る20'29 0°-22'-19 max. Earth dist. -382 Jun 29 j 05:58 0°ഇ22'10 6.30231 AU minimum elong -388 Dec 29 j 17:59 4°る20'28 0°22'20 morning rise -382 Jul 12 j 00:01 3°9511'05 max. Earth dist. -388 Dec 29 j 03:13 4°**る**11'43 6.07342 AU retrograde -382 Nov 11 j 16:03 20°5546'22 morning rise -387 Jan 11 j 14:51 7°る23'25 opposition -381 Jan 10 j 12:27 15°9547'56 0°51'50 retrograde -387 May 21 j 14:31 27°る10'18 min. Earth dist. -381 Jan 10 j 07:58 15°5549'25 4.35593 AU opposition -387 Jul 21 j 03:46 22°る12'04 -1°-3'-9 direct -381 Mar 12 j 16:46 10°9544'48 28°938'18 min. Earth dist. -387 Jul 21 j 03:03 22°る12'18 4.02393 AU evening set -381 Jul 17 j 22:55 direct -387 Sep 18 i 06:33 17°る18'37 -381 Jul 24 i 05:40 $0^{\circ}\Omega$ -387 Dec 23 i 09:25 0°≈ evening set -386 Jan 21 j 02:44 6°≈39'52 conjunction -381 Jul 31 i 06:39 1°**Ω**32'00 0°51'25 minimum elong -381 Jul 31 i 06:36 1°**Ω**31'58 0°51'25 -386 Feb 03 i 03:54 9°**≈**47'59 0°-57'-46 max. Earth dist. -381 Jul 30 j 23:15 1°Ω27'58 6.39781 AU conjunction -386 Feb 03 i 03:51 9°**≈**47'58 0°57'47 -381 Aug 13 j 11:27 4°**Ω**24'11 minimum elong morning rise -386 Feb 03 j 18:48 9°≈56'57 5.99016 AU -381 Oct 05 j 19:08 15°Ω max. Earth dist. -386 Feb 16 j 08:04 12°≈57'46 -381 Dec 12 j 03:26 21°**Ω**23'13 morning rise retrograde -386 Feb 24 j 22:02 -380 Feb 10 j 07:38 16°Ω28'24 1°31'24 15°≈ opposition -380 Feb 10 j 20:58 -386 May 12 j 00:11 0°**)**€ min. Earth dist. 16°**Ω**24'04 4.42482 AU -386 Jun 28 j 11:55 3°¥25'40 -380 Feb 21 j 19:29 15°RΩ retrograde -386 Aug 15 j 08:42 -380 Apr 12 j 13:31 30°R≈ direct 11°**Ω**25′16 -386 Aug 27 j 13:58 28°≈23'26 -1°-42'-38 -380 Jun 02 j 06:36 15°**Ω** opposition -386 Aug 26 j 17:36 28°≈30'16 3.97632 AU -380 Aug 17 j 14:56 29°**Ω**05′02 min. Earth dist. evening set -386 Oct 24 j 17:33 -380 Aug 21 j 20:39 direct 23°**≈**29'33 0° m -386 Dec 28 j 18:50 max. Earth dist. -380 Aug 29 j 06:46 0°**)**€ 1° Mp 36'42 6.43386 AU evening set -385 Feb 26 j 21:36 13°**¥**02'39 conjunction -380 Aug 30 j 14:23 1° m 53'53 1°10'26 conjunction -385 Mar 12 j 06:41 16°**)** 14'38 -1°-11'-44 minimum elong -380 Aug 30 j 14:21 1° m 53'52 1°10'26 minimum elong -385 Mar 12 j 06:41 16°**)** 14'38 1°11'46 morning rise -380 Sep 12 j 10:55 4° m/41'19 max. Earth dist. -385 Mar 14 j 01:15 16°**)** 40′08 5.98173 AU retrograde -379 Jan 10 j 14:12 21° Tp 31'15 -385 Mar 25 j 18:47 19°**¥**28′12 -379 Mar 12 j 03:23 16° Mp 38'46 1°45'40 morning rise opposition -385 May 11 j 22:33 $0^{\circ}\Upsilon$ min. Earth dist. -379 Mar 13 j 07:01 16° m/29'54 4.42722 AU -385 Aug 04 j 18:03 9°Y53'02 -379 May 13 j 20:54 11°M 36'41 retrograde direct -385 Oct 02 i 03:01 4°Υ58'54 4.00935 AU -379 Sep 17 j 11:11 min. Earth dist. evening set 29° m 17'43 -385 Oct 03 j 10:32 4°Υ48'11 -1°-41'-59 -379 Sep 20 j 16:34 opposition 0∘**⊽** -379 Sep 28 j 08:01 -385 Nov 21 j 15:21 30°R**)**€ max. Earth dist. 1°**2**40'45 6.40145 AU 29°**)** 52'02 direct -385 Nov 30 i 09:27 -385 Dec 09 i 04:17 $0^{\circ}\Upsilon$ conjunction -379 Sep 30 j 04:40 2° 205'20 1°10'06 minimum elong -379 Sep 30 i 04:41 -384 Apr 04 j 05:40 19°**Y**13'41 2°**2**05'21 1°10'06 evening set morning rise -379 Oct 12 i 19:33 4°**£**51'53 -384 Apr 17 j 21:32 22°\bar{Y}25'34 0°-58'-2 -378 Feb 10 j 23:23 22°**₽**00'16 conjunction retrograde -384 Apr 17 j 21:35 -378 Apr 12 j 20:21 minimum elong 22°**Y**25'35 0°58'03 opposition 17°**2**08'35 1°31'15 -384 Apr 20 j 01:17 22°**Y**'55'53 -378 Apr 14 j 06:41 max. Earth dist. 6.05226 AU min. Earth dist. 16°**♀**57'40 4.36221 AU 25°**Y**38'23 -378 Jun 14 j 08:40 -384 May 01 j 15:44 direct 12°**△**08'37 morning rise -384 May 20 j 18:07 0°8 -378 Oct 17 j 22:14 0°M -384 Aug 25 j 23:58 15°8 -378 Oct 18 j 07:54 evening set 0°M05'23 -384 Sep 08 j 01:53 15°**8**17'04 -378 Oct 28 j 22:45 6.30850 AU retrograde max. Earth dist. 2°M28'35 -384 Sep 21 j 03:03 15°₹**८** min. Earth dist. -384 Nov 05 j 07:45 10°**8**23'02 4.10943 AU -378 Oct 30 j 22:37 2°M55'35 0°50'04 conjunction opposition -384 Nov 06 j 15:25 10°**8**12'15 -1°-3'-5 minimum elong -378 Oct 30 j 22:40 2°M55'36 0°50'04 direct -383 Jan 04 j 06:32 5°**8**13'01 morning rise -378 Nov 12 j 12:16 5°M45'24 -383 Mar 29 j 12:50 15°8 -378 Dec 26 j 07:00 15°M evening set -383 May 10 j 19:41 24°**8**05'59 retrograde -377 Mar 16 j 05:02 23°M37'37 -377 May 16 j 03:26 18°M45'00 0°49'39 opposition

-383 May 24 j 14:18

conjunction

27°**8**13'40 0°-23'-39

min. Earth dist.

-377 May 17 j 11:26

18°M34'47 4.24626 AU

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -377 in astronomical counting style is the year 378 BCE in historical counting style. -377 Jun 18 j 13:46 15°RM -372 Nov 13 j 13:37 15°R₩ -377 Jul 16 j 19:48 direct 13°M47'37 -371 Jan 09 j 08:09 10°**8**16'58 direct -377 Aug 13 j 22:22 15°M -371 Mar 06 j 07:06 15°₩ -377 Nov 09 j 10:48 0°×7 -371 May 15 j 22:45 29°**8**05'29 evening set evening set -377 Nov 19 j 02:41 2°**х¹**12′24 -371 May 19 j 23:24 Π °0 max. Earth dist. -377 Nov 30 j 06:48 4°**҂**¹47'30 6.17961 AU -371 May 29 j 17:15 2°**Ⅱ**12'19 0°-17'-48 conjunction -377 Dec 01 j 18:38 5°**х** 08′19 -371 May 29 j 17:17 2°**Ⅱ**12'20 0°17'48 conjunction 0°14'15 minimum elong -371 May 31 j 10:33 minimum elong -377 Dec 01 j 18:39 5°**х** 08′19 0°14'14 max. Earth dist. 2°**Ⅲ**35'42 6.19210 AU behind sun begin -377 Dec 01 j 14:38 5°**х**¹06′00 morning rise -371 Jun 12 j 11:39 5°**Ⅱ**18'50 23°**Ⅱ**42'56 behind sun end -377 Dec 01 j 22:40 5°**∡**10'38 retrograde -371 Oct 15 j 20:33 -377 Dec 14 j 10:47 -371 Nov 18 j 03:51 $21^{\circ} \Pi 56'15$ morning rise 8°**∡**04'39 asc. node -376 Apr 14 j 16:54 -371 Dec 14 j 12:03 0°04'00 desc. node 26°**х** 56′17 opposition 18°**Ⅱ**41′07 retrograde -376 Apr 19 j 12:36 26°**х** 58′29 min. Earth dist. -371 Dec 13 j 16:42 18°**Ⅱ**47'38 4.25832 AU opposition -376 Jun 19 j 08:31 22°**х**⁴03'26 0°-10'-26 direct -370 Feb 12 j 13:02 13°**Ⅲ**39'01 min. Earth dist. -376 Jun 20 j 02:15 21°**х¹**57'42 4.11308 AU -370 Jun 10 j 22:10 0ಂತಾ direct -376 Aug 18 j 15:48 17°**∡**08'38 evening set -370 Jun 19 j 15:44 1°954'03 -376 Nov 24 j 22:50 0°궁 evening set -376 Dec 21 j 14:27 6°る07'20 conjunction -370 Jul 03 j 05:59 4°953'39 0°22'48 minimum elong -370 Jul 03 j 05:58 4°953'38 0°22'49 conjunction -375 Jan 03 j 10:18 9°**ට**10'19 0°-27'-50 max. Earth dist. -370 Jul 03 j 21:32 5°902'13 6.32009 AU minimum elong -375 Jan 03 j 10:16 9°**ට**10'17 0°27'51 morning rise -370 Jul 16 j 18:23 7°952'06 max. Earth dist. -375 Jan 02 j 22:00 9°**る**02'59 6.05426 AU retrograde -370 Nov 16 j 02:04 25°9520'02 morning rise -375 Jan 16 j 08:09 12°る14'31 opposition -369 Jan 14 j 22:49 20°9522'08 0°58'47 -375 Apr 19 i 02:27 0°≈ min. Earth dist. -369 Jan 14 j 21:30 20°9522'34 4.37096 AU -375 May 26 j 19:23 2°≈11'03 direct -369 Mar 17 j 08:28 15°9518'53 retrograde -375 Jul 03 j 15:17 30°Rる -369 Jul 07 j 18:28 $0^{\circ}\Omega$ -375 Jul 26 j 05:56 27°る12'18 -1°-10'-20 -369 Jul 22 j 13:03 3°**Ω**08'52 opposition evening set -375 Jul 26 j 03:01 27°る13'16 4.00714 AU min. Earth dist. 6°Ω01'37 0°55'12 -375 Sep 23 j 04:45 22°る18'54 -369 Aug 04 j 19:33 direct conjunction -375 Dec 03 j 23:31 -369 Aug 04 j 19:31 6°Ω01'36 0°55'11 minimum elong 0°≈ -374 Jan 26 j 02:21 -369 Aug 04 j 08:10 5°**Ω**55'25 6.40863 AU evening set 11°≈45'38 max. Earth dist. -369 Aug 17 j 23:06 8°**£**52'51 morning rise -374 Feb 08 j 04:49 -369 Sep 16 j 05:34 14°≈54'53 -1°-1'-10 15°**Ω** conjunction -374 Feb 08 j 04:47 -369 Dec 16 j 09:51 14°≈54'51 1°01'10 25°**Ω**48'18 minimum elong retrograde -374 Feb 08 j 13:18 -368 Feb 14 j 16:07 20°**Ω**53'49 1°35'05 15°≈ opposition 15°**≈**06'52 5.97743 AU -374 Feb 09 j 00:42 -368 Feb 15 j 07:25 20° **Ω**48'51 4.43096 AU max. Earth dist. min. Earth dist. morning rise -374 Feb 21 j 10:09 18°**≈**05'48 direct -368 Apr 17 j 00:07 15°**Ω**50'42 -374 Apr 16 j 02:44 0°**)**€ -368 Aug 05 j 14:36 0° m retrograde -374 Jul 03 j 19:58 8°**¥**39′06 evening set -368 Aug 22 j 00:34 3°m/29'13 opposition -374 Sep 01 j 18:52 3°¥36'28 -1°-45'-4 min. Earth dist. -374 Aug 31 j 20:31 3°¥43'59 3.96934 AU -368 Sep 03 j 23:03 6° m 17'37 1°11'35 conjunction -374 Oct 02 j 02:12 30°R≈ minimum elong -368 Sep 03 j 23:02 6° m 17'36 1°11'36 direct -374 Oct 29 j 19:08 28°≈42'27 max. Earth dist. -368 Sep 02 j 13:39 5° Mp 59'26 6.43472 AU -374 Nov 26 j 10:43 0°**)**€ -368 Sep 16 j 18:27 9° m 04'35 morning rise -373 Mar 04 i 03:38 18°**¥**18′02 -367 Jan 14 j 22:44 25° m 55'06 evening set retrograde -367 Mar 16 j 13:21 opposition 21° m 02'50 1°45'21 -373 Mar 17 j 13:46 -367 Mar 17 j 18:38 conjunction 21°\(\frac{1}{30}\)'35 -1°-11'-22 min. Earth dist. 20° m 53'27 4.42279 AU -373 Mar 17 j 13:47 minimum elong 21°**)** 30'36 1°11'22 direct -367 May 18 i 07:21 16° Mp 01'00-373 Mar 19 i 10:06 max. Earth dist. 21°¥57'08 5.98095 AU -367 Sep 04 i 12:26 0∘**⊽** -373 Mar 31 j 03:13 24°**)** 44'44 evening set -367 Sep 21 j 19:26 3°**£**43'07 morning rise -373 Apr 22 j 17:59 $0^{\circ}\Upsilon$ max. Earth dist. -367 Oct 02 j 12:41 6°**₽**04'37 6.39187 AU retrograde -373 Aug 09 j 21:08 15°**℃**07'40 6°**2**30′50 1°08′24 -373 Oct 07 j 03:46 10°**Y**14'00 4.01491 AU -367 Oct 04 j 12:11 min. Earth dist. conjunction 10°**Ƴ**02'37 -1°-38'-23 -367 Oct 04 j 12:12 opposition -373 Oct 08 j 13:10 minimum elong 6°**♀**30'51 1°08'24 -367 Oct 17 j 02:47 direct -373 Dec 05 j 12:18 5°Y06'02 morning rise 9°**₽**17'37 -372 Apr 09 j 12:46 evening set 24°**Y**26'11 retrograde -366 Feb 15 j 14:00 26°**♀**30'42 -366 Apr 17 j 10:40 21°**£**38'57 1°26'52 opposition -372 Apr 23 j 05:32 27°Υ37'55 0°-54'-1 -366 Apr 18 j 21:51 21°**≏**27'45 4.34800 AU conjunction min. Earth dist. -372 Apr 23 j 05:35 27°**Y**37'57 0°54'02 direct -366 Jun 18 j 21:33 16°**≏**39'13 minimum elong -372 Apr 25 j 10:28 28°**Y**08'51 6.06375 AU -366 Oct 01 j 12:21 max. Earth dist. 0°M -372 May 03 j 09:12 0° 8 evening set -366 Oct 22 j 17:59 4°M39'30 0°**8**50'24 morning rise -372 May 07 j 00:09 max. Earth dist. -366 Nov 02 j 10:29 7°M04'09 6.29090 AU -372 Jul 14 j 21:25 15°8 retrograde -372 Sep 13 j 00:53 20°**8**21'20 conjunction -366 Nov 04 j 08:51 7°M30'24 0°45'46 min. Earth dist. -372 Nov 10 j 06:21 15°**8**27'01 4.12510 AU -366 Nov 04 j 08:54 7°M30'26 0°45'46 minimum elong -372 Nov 11 j 12:44 15°816'40 0°-55'-18 morning rise -366 Nov 16 j 22:30 10° ML 21'00opposition

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -366 in astronomical counting style is the year 367 BCE in historical counting style. -366 Dec 08 i 00:03 15°M min. Earth dist. -360 Nov 15 i 00:56 20°**8**22'57 4.14648 AU -365 Mar 21 j 01:03 28°M21'19 -360 Nov 16 i 07:00 20°**8**12'43 0°-47'-22 retrograde opposition -365 May 21 j 00:07 23°M28'28 0°41'54 -359 Jan 14 j 05:28 15°**8**12'39 opposition direct -365 May 22 j 06:36 min. Earth dist. -359 May 03 j 04:26 Π °0 23°M18'44 4.22641 AU -365 Jul 21 j 11:38 -359 May 20 j 22:15 3°**I**55′10 direct 18°M31'29 evening set -365 Oct 23 j 04:16 0°×7 7°**∡**'01'24 -365 Nov 23 j 18:04 -359 Jun 03 j 16:19 7°II00'54 0°-12'-2 evening set conjunction -359 Jun 03 j 16:20 max. Earth dist. -365 Dec 05 j 00:19 7°**Ⅱ**00'54 0°12'03 9°**∡**38'31 6.15920 AU minimum elong 6°**Ⅱ**57'47 -359 Jun 03 j 10:47 behind sun begin -359 Jun 03 j 21:53 7°**Ⅱ**04'01 conjunction -365 Dec 06 j 10:18 9°**∡**′58′20 0°08'21 behind sun end minimum elong -365 Dec 06 j 10:18 9°×758'21 0°08'21 max. Earth dist. -359 Jun 05 j 05:18 7°**Ⅱ**21'44 6.21375 AU -365 Dec 06 j 03:14 9°**⋌**154'14 -359 Jun 17 j 10:09 10°**Ⅲ**06′12 behind sun begin morning rise -365 Dec 06 j 17:22 -359 Sep 27 j 23:04 behind sun end 10°**₹**02'27 asc. node 27°**Ⅲ**32'15 morning rise -365 Dec 19 j 03:13 12°**₹**55'51 retrograde -359 Oct 20 j 07:49 28°**Ⅲ**20'36 desc. node -364 Feb 22 j 15:35 26°**₹**'27'38 opposition -359 Dec 18 j 23:24 23°**Ⅱ**19'19 0°12'20 -364 Mar 19 j 13:41 0°정 min. Earth dist. -359 Dec 18 j 07:29 23°**Ⅲ**24'40 4.27819 AU retrograde -364 Apr 24 j 17:57 1°**る**59'38 direct -358 Feb 17 j 06:10 18°**Ⅱ**16'58 -364 May 31 j 03:55 30°R*x*⁷ -358 May 24 j 19:44 0ಂತಾ opposition -364 Jun 24 j 12:26 27°**₹**04'07 0°-19'-33 evening set -358 Jun 24 j 08:03 6°9527'15 min. Earth dist. -364 Jun 25 j 03:40 26°**₹**′59′10 4.09376 AU direct -364 Aug 23 j 15:28 22°**х** 09′35 conjunction -358 Jul 07 j 21:29 9°925'48 0°28'02 -364 Nov 05 i 08:11 0°궁 minimum elong -358 Jul 07 j 21:27 9°9525'47 0°28'03 evening set -364 Dec 26 j 12:55 11°る13'33 max. Earth dist. -358 Jul 08 i 09:46 9°932'32 6.33661 AU morning rise -358 Jul 21 i 08:39 12°9523'05 conjunction -363 Jan 08 j 09:44 14°る17'37 0°-33'-30 retrograde -358 Nov 20 i 06:54 29°5544'48 minimum elong -363 Jan 08 i 09:42 14°る17'36 0°33'32 -357 Jan 19 j 06:01 24°547'26 1°05'11 opposition max. Earth dist. -363 Jan 08 j 02:54 14°る13'33 6.03805 AU min. Earth dist. -357 Jan 19 j 06:37 24°5947'14 4.38315 AU -363 Jan 21 j 08:28 17°る22'58 -357 Mar 21 j 18:26 19°5944'11 morning rise direct -363 Mar 20 j 11:55 -357 Jun 20 j 11:28 0°≈≈ $0^{\circ}\Omega$ -363 Jun 01 j 06:17 7°≈27'26 -357 Jul 26 j 23:50 7°**Ω**31'50 retrograde evening set -363 Jul 31 j 14:28 2°≈28'10 -1°-17'-24 opposition 10°Ω23'49 0°58'33 min. Earth dist. -363 Jul 31 j 08:29 -357 Aug 09 j 05:06 2°≈30'09 3.99619 AU conjunction -363 Aug 20 j 05:21 -357 Aug 09 j 05:03 10°Ω23'48 0°58'33 30°Ŗる minimum elong -363 Sep 28 j 08:42 -357 Aug 08 j 13:18 10°**Ω**15'14 6.41550 AU 27°る34'53 max. Earth dist. direct -363 Nov 05 j 20:59 -357 Aug 22 j 07:29 13°**Ω**14'18 0°≈ morning rise -357 Aug 30 j 12:33 -362 Jan 22 j 14:54 15°**Ω** 15°≈ -362 Jan 31 j 07:56 -357 Dec 11 j 13:19 evening set 17°≈04'31 0° M retrograde -357 Dec 20 j 16:28 0°m/07'58 conjunction -362 Feb 13 j 11:16 20°≈14'24 -1°-4'-17 -357 Dec 29 j 18:33 30°R€ minimum elong -362 Feb 13 j 11:14 20°≈14'23 1°04'18 opposition -356 Feb 18 j 23:00 25°Ω13'56 1°38'10 max. Earth dist. -362 Feb 14 j 10:32 20°≈28'26 5.97269 AU min. Earth dist. -356 Feb 19 j 17:34 25°**Ω**07'56 4.43227 AU -362 Feb 26 j 17:55 23°**≈**26′03 direct -356 Apr 21 j 09:52 20°**Ω**11′00 morning rise -362 Mar 26 j 23:27 0°**)**€ -356 Jul 19 j 06:15 0° m -362 Jul 09 j 03:37 14°**)**€00'45 evening set -356 Aug 26 j 08:30 7° m/49'52 retrograde -362 Sep 06 j 01:00 9°**升**06'17 3.97180 AU max. Earth dist. -356 Sep 06 j 17:07 10° m 17'56 6.43019 AU min. Earth dist. -362 Sep 07 i 02:44 8°\;\;\;\;57'36 -1°-46'-45 opposition -362 Nov 04 j 01:14 4°**)**€03'19 -356 Sep 08 i 06:04 10° m 38'04 1°12'21 direct conjunction -361 Mar 09 j 11:51 -356 Sep 08 i 06:03 evening set 23°**)** 37'33 minimum elong 10° m 38'04 1°12'20 -356 Sep 21 i 00:41 morning rise 13° m 24'55 conjunction -361 Mar 22 j 23:09 26°**¥**50'10 -1°-10'-28 -355 Jan 05 i 12:33 0∘**⊽** -361 Mar 22 i 23:10 26°\ 50'11 1°10'29 retrograde -355 Jan 19 j 07:37 0°**£**17'59 minimum elong max. Earth dist. -361 Mar 24 j 23:07 27°**¥**18'47 5.99033 AU -355 Feb 02 j 02:35 30°R ₩ opposition -361 Apr 05 j 13:23 0°Y04'14 -355 Mar 20 j 23:02 25° m/25'53 1°44'29 morning rise -361 Apr 05 j 06:13 $0^{\circ}\Upsilon$ -355 Mar 22 j 05:24 min. Earth dist. 25° m 16'10 4.41296 AU -361 Aug 15 j 01:04 20°Y20'54 retrograde direct -355 May 22 j 16:09 20° m 24'19 -361 Oct 12 j 06:30 15°**Υ**27'00 4.03000 AU 0∘**⊽** min. Earth dist. -355 Aug 17 j 22:48 15°**Y**15'42 -1°-34'-3 opposition -361 Oct 13 j 15:36 evening set -355 Sep 26 j 03:36 8°**₽**09'22 -361 Dec 10 j 17:53 10°**Y**18'41 max. Earth dist. -355 Oct 06 j 21:02 10°**2**31'27 6.37757 AU direct 29°**Y**33'46 -360 Apr 14 j 18:20 evening set -360 Apr 16 j 15:40 0° 8 -355 Oct 08 j 20:01 10° 257'29 1°06'18 conjunction -355 Oct 08 j 20:03 10°**♀**57'30 1°06'18 minimum elong conjunction -360 Apr 28 j 11:37 2°**8**44'53 0°-49'-42 morning rise -355 Oct 21 j 10:11 13°**£**44'42 minimum elong -360 Apr 28 j 11:40 2°**8**44'54 0°49'42 -354 Jan 24 j 19:35 $0^{\circ}M$ max. Earth dist. -360 Apr 30 j 16:46 3°**8**15'46 6.08304 AU retrograde -354 Feb 20 j 05:06 1°MJ04'11 morning rise -360 May 12 j 06:32 5°**8**56'35 -354 Mar 18 j 16:26 30°**₹**Ω -360 Jun 22 j 16:02 15°8 -354 Apr 22 j 02:19 26° **2**12'27 1°21'57 opposition retrograde -360 Sep 17 j 17:42 25°**8**17'07 min. Earth dist. -354 Apr 23 j 13:34 26°**£**01'14 4.33008 AU

•	-		• , ,		7-Dez-2017 14:48 55 BCE in historical co		5
direct	-354 Jun 23 j 10:34	21° ≙ 13'11	r astronomicar coun	evening set	-348 Apr 19 j 22:01	4° 8 36'20	
	-354 Sep 13 j 04:22	0° M .					
evening set	-354 Oct 27 j 05:29	9° M 18′05		conjunction	-348 May 03 j 15:38	7° 8 46'46	0°-45'-5
max. Earth dist.	-354 Nov 06 j 22:02	11°M43'31	6.27087 AU	minimum elong	-348 May 03 j 15:41	7° 8 46'48	0°45'05
				max. Earth dist.	-348 May 05 j 18:02	8° 8 15'56	6.10169 AU
conjunction	-354 Nov 08 j 20:16	12°M09'49	0°41'09	morning rise	-348 May 17 j 10:47	10° 8 57'41	
minimum elong	-354 Nov 08 j 20:18	12°M09'50	0°41'08		-348 Jun 04 j 08:15	15° 8 0°Ⅱ	
morning rise	-354 Nov 21 j 10:23 -354 Nov 21 j 07:55	15°M-01'24 15°M-		retrograde	-348 Sep 13 j 05:06 -348 Sep 22 j 09:45	0° П 08'28	
	-353 Feb 07 j 16:23	15 ll c 0° x 7		retrograde	-348 Oct 01 j 13:34	30°R 8	
retrograde	-353 Mar 26 j 00:38	3° ∡ 10′53		opposition	-348 Nov 20 j 23:17	25° 8 04'22	0°-39'-15
remogrado	-353 May 12 j 08:06	30°RML		min. Earth dist.	-348 Nov 19 j 19:34	25° 8 13'48	4.16591 AU
opposition	-353 May 25 j 23:15	28°MJ7'44	0°33'45	direct	-347 Jan 19 j 02:46	20° 8 03'52	
min. Earth dist.	-353 May 27 j 03:39	28°ML08'38	4.20558 AU		-347 Apr 14 j 23:50	$\Pi^{\circ}0$	
direct	-353 Jul 26 j 06:41	23°ML21'09		evening set	-347 May 25 j 20:01	8° Ⅱ 41'19	
	-353 Oct 02 j 19:52	0° ∡ ¹					
evening set	-353 Nov 28 j 11:20	11° ∡ 756′21		conjunction	-347 Jun 08 j 13:54	11° Ⅱ 46′06	0°-6'-16
max. Earth dist.	-353 Dec 09 j 23:07	14° ∡ ³37'19	6.13968 AU	minimum elong	-347 Jun 08 j 13:55	11° Ⅱ 46′07	0°06'16
				behind sun begin	-347 Jun 08 j 06:03	11° Ⅱ 41'43	
conjunction	-353 Dec 11 j 04:14	14° ≯ 54'22	0°02'18	behind sun end	-347 Jun 08 j 21:47	11° Ⅱ 50'30	
minimum elong	-353 Dec 11 j 04:13	14° ∡ 54′22	0°02'18	max. Earth dist.	-347 Jun 10 j 00:47	12° Ⅱ 05'41	6.23259 AU
behind sun begin	-353 Dec 10 j 20:13	14° ∡ 749'42		morning rise	-347 Jun 22 j 06:58	14° Ⅱ 50'17	
behind sun end	-353 Dec 11 j 12:14	14° ∡ 759'02		asc. node	-347 Aug 07 j 20:52	24° II 33'37	
morning rise desc. node	-353 Dec 23 j 21:41	17° х 52′59 19° х 48′43		notro ano do	-347 Sep 10 j 23:08	0°ഇ 2°ഇ56'11	
desc. node	-352 Jan 01 j 05:47 -352 Feb 18 j 20:30	19 メ ・48 43		retrograde	-347 Oct 24 j 16:49 -347 Dec 07 j 10:25	2 ₹36 11 30°R∏	
retrograde	-352 Apr 30 j 01:19	0 3 7° 3 06'08		opposition	-347 Dec 07 j 10.23 -347 Dec 23 j 09:53	27° II 55'27	0°20'31
opposition	-352 Apr 30 j 01:19 -352 Jun 29 j 18:03	7 30008 2°310'10	0°-28'-40	min. Earth dist.	-347 Dec 23 j 09:33	28° I 100'13	4.29490 AU
min. Earth dist.	-352 Jun 30 j 06:27	2°る06'09	4.07730 AU	direct	-346 Feb 21 j 20:27	22° II 52'54	4.25450710
mm. Barm dige.	-352 Jul 17 j 01:37	30°R. ✓	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		-346 May 05 j 07:21	0°9	
direct	-352 Aug 28 j 16:13	27° ∡ 15'58		evening set	-346 Jun 28 j 23:59	10°959'29	
	-352 Oct 09 j 08:59	ರ°0		•	V		
evening set	-352 Dec 31 j 13:13	16° ට 23'59		conjunction	-346 Jul 12 j 12:15	13° © 57'01	0°33'06
				minimum elong	-346 Jul 12 j 12:13	13° 9 57'00	0°33'06
conjunction	-351 Jan 13 j 10:39	19° ට 28'54	0°-38'-58	max. Earth dist.	-346 Jul 12 j 18:53	14°500'40	6.34987 AU
minimum elong	-351 Jan 13 j 10:37	19° පි 28'53	0°38'59	morning rise	-346 Jul 25 j 22:24	16° © 53'18	
max. Earth dist.	-351 Jan 13 j 07:19		6.02603 AU		-346 Oct 02 j 12:18	$0^{\circ}\Omega$	
morning rise	-351 Jan 26 j 10:32	22° る 35'14		retrograde	-346 Nov 24 j 14:26	4° Ω 09'57	
	-351 Feb 27 j 17:20	0°≈		*.*	-345 Jan 17 j 14:30	30°Rூ	1011112
retrograde	-351 Jun 06 j 14:43	12°≈45'35	10.221.50	opposition	-345 Jan 23 j 13:43	29°513'06	1°11'13
opposition min. Earth dist.	-351 Aug 05 j 22:55	7°≈45'40 7°≈49'01	-1°-23'-50 3.98998 AU	min. Earth dist.	-345 Jan 23 j 17:53 -345 Mar 26 j 06:50	29°©11'44 24°©09'45	4.39227 AU
direct	-351 Aug 05 j 12:48 -351 Oct 03 j 12:52	7 ≈4901 2°≈52'21	3.98998 AU	direct	-345 May 31 j 02:17	24 ≥ 0943 0° Ω	
direct	-350 Jan 04 j 15:54	2 ≈32 21 15°≈		evening set	-345 Jul 31 j 11:02	11° Ω 55'54	
evening set	-350 Feb 05 j 13:10	22°≈23'02		evening set	-545 Jul 51 j 11.02	11 063337	
e renning see	55 0 1 6 0 00 j 15.10			conjunction	-345 Aug 13 j 15:20	14° Ω 47'16	1°01'36
conjunction	-350 Feb 18 j 17:40	25° ≈ 33'24	-1°-6'-51	minimum elong	-345 Aug 13 j 15:17		1°01'36
minimum elong	-350 Feb 18 j 17:38	25° ≈ 33'23	1°06'53	max. Earth dist.	-345 Aug 12 j 20:45	14° Ω 37'11	6.41968 AU
max. Earth dist.	-350 Feb 19 j 22:23	25° ≈ 50'43	5.97266 AU		-345 Aug 14 j 14:45	15° Ω	
morning rise	-350 Mar 04 j 01:13	28° ≈ 45'28		morning rise	-345 Aug 26 j 16:26	17° Ω 37'06	
	-350 Mar 09 j 06:24	0°) €			-345 Oct 30 j 09:02	0° m p	
retrograde	-350 Jul 14 j 11:54	19° ∺ 19'27		retrograde	-345 Dec 24 j 22:16	4° ™ 29'40	
min. Earth dist.	-350 Sep 11 j 06:18		3.97799 AU		-344 Feb 20 j 04:30	30° R €	
opposition	-350 Sep 12 j 09:00	14°) 15′50	-1°-47'-30	opposition	-344 Feb 23 j 06:51	29° Ω 35'59	1°40'46
direct	-350 Nov 09 j 08:02	9°) €21'14		min. Earth dist.	-344 Feb 24 j 02:38	29° £ 29'35	4.43162 AU
evening set	-349 Mar 14 j 18:28	28°) 52′54		direct	-344 Apr 25 j 18:25	24° Ω 33'10	
	-349 Mar 19 j 11:42	$\mathbf{\gamma}_{0}$. ,	-344 Jun 28 j 13:06	0°M)	
conjunction	240 Mar 20: 06:42	2° Y 05'25	-1°-9'-2	evening set max. Earth dist.	-344 Aug 30 j 17:25	12° Mp 12'47	6 12160 ATT
conjunction minimum elong	-349 Mar 28 j 06:42 -349 Mar 28 j 06:44	2°Υ05'25 2°Υ05'26	1°09'02	max. Earth tist.	-344 Sep 10 j 23:05	14° m 39'34	6.42468 AU
max. Earth dist.	-349 Mar 30 j 08:37	2° Υ 35'05	6.00192 AU	conjunction	-344 Sep 12 j 14:02	15° m) 00'50	1°12'42
morning rise	-349 Apr 10 j 21:51	5° Υ 19'18	0.00172 AU	minimum elong	-344 Sep 12 j 14:02	15° My 00'50	1°12'41
retrograde	-349 Aug 20 j 00:31	25° Y 28'47		morning rise	-344 Sep 25 j 07:53	17° Mp 47'35	1 12 71
min. Earth dist.	-349 Oct 17 j 05:14	20° Υ 35'07	4.04584 AU	0	-344 Nov 27 j 11:51	0∘ ಹ	
opposition	-349 Oct 18 j 15:12	20° Y 23'32	-1°-29'-5	retrograde	-343 Jan 23 j 18:49	4° ≏ 43'28	
direct	-349 Dec 15 j 18:30	15° Y 26′05			-343 Mar 24 j 08:07	30°R Mp	
	-348 Mar 30 j 13:46	$0^{\circ}B$		opposition	-343 Mar 25 j 10:30	29° m 51'35	1°43'01

•	omena of Jupiter fr		•	* *			6
Attention, astronom	ical year style is used: T	-					
min. Earth dist.	-343 Mar 26 j 18:43		4.40305 AU	opposition	-338 Sep 17 j 10:50	19° ∺ 24'25	-1°-47'-21
direct	-343 May 27 j 04:06	24° m 50'20		direct	-338 Nov 14 j 08:39	14° ¥ 29'30	
	-343 Jul 27 j 18:39	0∘ ত			-337 Mar 02 j 19:23	0° Υ	
evening set	-343 Sep 30 j 12:45	12° ≏ 37'57		evening set	-337 Mar 19 j 21:38	3° Y 58'39	
max. Earth dist.	-343 Oct 11 j 04:37	14° ≏ 59'42	6.36405 AU				
	242.0	1.50.000	1000110	conjunction	-337 Apr 02 j 10:44	7°Υ11'02	-1°-7'-6
conjunction	-343 Oct 13 j 04:44	15° £ 26'27	1°03'48	minimum elong	-337 Apr 02 j 10:46	7° Υ 11'03 7° Υ 40'24	1°07'08 6.01368 AU
minimum elong morning rise	-343 Oct 13 j 04:46 -343 Oct 25 j 18:45	15° £ 26'28 18° £ 14'09	1°03'48	max. Earth dist. morning rise	-337 Apr 04 j 12:17 -337 Apr 16 j 02:42	10° Υ 24'43	0.01308 AU
morning rise	-343 Dec 23 j 15:54	0°M		morning rise	-337 Apr 10 j 02.42	0° 8	
retrograde	-342 Feb 24 j 21:03	5°M39'45		retrograde	-337 Aug 08 j 03:33	0° 8 27'23	
opposition	-342 Apr 26 j 19:16	0°M47'54	1°16'29	retrograde	-337 Aug 24 j 20:20 -337 Sep 10 j 09:06	0 O2723 30°RΥ	
min. Earth dist.	-342 Apr 28 j 05:16	0°M37'04	4.31401 AU	min. Earth dist.	-337 Oct 22 j 02:09	25° Υ 33'24	4.06034 AU
mm. Zarm dige.	-342 May 03 j 02:18	30°R Ω	51.01.110	opposition	-337 Oct 23 j 11:04	25° Y '22'09	-1°-23'-39
direct	-342 Jun 28 j 00:16	25° Ω 49'02		direct	-337 Dec 20 j 17:20	20° Y °24'16	1 23 37
	-342 Aug 21 j 07:24	0° M			-336 Mar 12 j 05:30	0°8	
evening set	-342 Oct 31 j 17:39	13°M57'46		evening set	-336 Apr 24 j 22:10	9° 8 30'34	
•	-342 Nov 05 j 07:21	15° ™		•			
max. Earth dist.	-342 Nov 11 j 13:48	16°M25'47	6.25383 AU	conjunction	-336 May 08 j 16:20	12° 8 40'30	0°-40'-18
				minimum elong	-336 May 08 j 16:23	12° 8 40'31	0°40'19
conjunction	-342 Nov 13 j 08:37	16°M50'14	0°36'15	max. Earth dist.	-336 May 10 j 18:15	13° 8 09'15	6.11791 AU
minimum elong	-342 Nov 13 j 08:39	16°M50'15	0°36'14		-336 May 18 j 18:51	15° 8	
morning rise	-342 Nov 25 j 22:51	19°M42'38		morning rise	-336 May 22 j 11:28	15° 8 50'43	
	-341 Jan 13 j 14:20	0° ∡ ¹			-336 Jul 31 j 17:10	Π °0	
retrograde	-341 Mar 31 j 00:30	8° ₰ 00'06		retrograde	-336 Sep 26 j 23:38	4° ∏ 53′02	
opposition	-341 May 30 j 22:30	3° ₹ 06'42	0°25'21	min. Earth dist.	-336 Nov 24 j 10:38	29° 8 58'18	4.18221 AU
min. Earth dist.	-341 Jun 01 j 01:23	2° ≯ 758'05	4.18881 AU		-336 Nov 24 j 05:38	30° ₹ 8	
	-341 Jun 26 j 06:09	30°RM		opposition	-336 Nov 25 j 12:53	29° 8 49'24	0°-31'-9
direct	-341 Jul 31 j 02:18	28°M10'33		direct	-335 Jan 23 j 19:42	24° 8 48'38	
	-341 Sep 03 j 12:46	0° ∡ 7			-335 Mar 24 j 09:27	0°П	
desc. node	-341 Nov 10 j 17:41	11° х 43'06		evening set	-335 May 30 j 15:45	13° Ⅱ 22′23	
evening set	-341 Dec 03 j 04:24	16° ∡ 749'35		:	225 I 12:00:04	1.00T2(120)	0°00'-34
	241 Dec 15 : 21.25	100.740124	0°-3'-48	conjunction	-335 Jun 13 j 09:04	16° Ⅱ 26'20	0°00'-34 0°00'34
conjunction minimum elong	-341 Dec 15 j 21:35 -341 Dec 15 j 21:36	19° х 48'24 19° х 48'24	0°-3'-48 0°03'49	minimum elong behind sun begin	-335 Jun 13 j 09:03 -335 Jun 13 j 00:44	16° Ⅲ 26'20 16° Ⅲ 21'42	0.00.34
behind sun begin	-341 Dec 15 j 13:39	19° x °48'24	0 03 49	behind sun end	-335 Jun 13 j 17:23	16° Д 30'58	
behind sun end	-341 Dec 16 j 05:32	19° х 43 40		max. Earth dist.	-335 Jun 14 j 14:52		6.24774 AU
max. Earth dist.	-341 Dec 14 j 18:50		6.12463 AU	asc. node	-335 Jun 18 j 18:07	17° Ⅲ 38'30	0.24774710
morning rise	-341 Dec 28 j 15:56	22° × ⁷ 48'01	0.12 103 110	morning rise	-335 Jun 27 j 01:38	19° Ⅲ 29'37	
morning not	-340 Jan 29 j 14:39	0°ප ව°0			-335 Aug 17 j 02:16	0.82 23,4	
retrograde	-340 May 05 j 05:12	12° る 08'52		retrograde	-335 Oct 29 j 01:45	7° 5 28'38	
opposition	-340 Jul 04 j 22:10	7° る 12'21	0°-37'-24	opposition	-335 Dec 27 j 19:02	2° 5 28'27	0°28'23
min. Earth dist.	-340 Jul 05 j 06:35	7° る 09'36	4.06537 AU	min. Earth dist.	-335 Dec 27 j 07:39	2° © 32'15	4.30784 AU
direct	-340 Sep 02 j 15:10	2° る 18'23			-334 Jan 16 j 04:41	30°RⅡ	
evening set	-339 Jan 05 j 11:35	21° る 29'00		direct	-334 Feb 26 j 10:19	27° Ⅱ 25'42	
					-334 Apr 09 j 02:25	0 \circ \odot	
conjunction	-339 Jan 18 j 09:53	24° る 34'36	0°-44'00	evening set	-334 Jul 03 j 14:39	15° © 29'55	
minimum elong	-339 Jan 18 j 09:51	24° පි 34'35	0°44'01				
max. Earth dist.	-339 Jan 18 j 12:20	24° る 36'04	6.01827 AU	conjunction	-334 Jul 17 j 02:09	18° 5 26'41	0°37'52
morning rise	-339 Jan 31 j 10:31	27° る 41'39		minimum elong	-334 Jul 17 j 02:06	18° © 26'40	0°37'51
	-339 Feb 10 j 04:43	0° ≈		max. Earth dist.	-334 Jul 17 j 06:28	18° 5 29'04	6.35984 AU
	-339 Apr 28 j 23:51	15° ≈		morning rise	-334 Jul 30 j 11:00	21° 5 22'04	
retrograde	-339 Jun 11 j 21:57	17° ≈ 56′12			-334 Sep 10 j 10:41	0 \circ Ω	
	-339 Jul 26 j 01:52	15°R ≈		retrograde	-334 Nov 28 j 20:26	8° Ω 34'48	
opposition	-339 Aug 11 j 04:20	12°≈55'44	-1°-29'-22	opposition	-333 Jan 27 j 21:06	3° Ω 38′29	1°16'45
min. Earth dist.	-339 Aug 10 j 16:28	12°≈59'40	3.98734 AU	min. Earth dist.	-333 Jan 28 j 02:47		4.39883 AU
direct	-339 Oct 08 j 16:35	8°≈02'23		1' 4	-333 Feb 28 j 01:46	30°₹©	
avari '	-339 Dec 15 j 08:39	15° ≈		direct	-333 Mar 30 j 16:34	28°©35'12	
evening set	-338 Feb 10 j 15:41	27° ≈ 33'09			-333 Apr 30 j 16:31	0°Ω 15°Ω	
	-338 Feb 20 j 20:15	0° ∀		avanis =t	-333 Jul 29 j 15:55	15° Ω	
aoniumati	220 Eab 22:21.00	00¥ 42150	10 01 40	evening set	-333 Aug 04 j 21:50	16° Ω 20'24	6 42220 411
conjunction	-338 Feb 23 j 21:06	0°) 43′50 0°) 43′49		max. Earth dist.	-333 Aug 17 j 02:10	18° Ω 58'52	6.42229 AU
minimum elong max. Earth dist.	-338 Feb 23 j 21:05 -338 Feb 25 j 04:54	1° H 02'58	5.97512 AU	conjunction	-333 Aug 18 j 00:51	19° Ω 11'12	1°04'15
max. Earth dist.	-338 Mar 09 j 05:47	3° ¥ 56'14	3.71314 AU	minimum elong	-333 Aug 18 j 00:31	19° Ω 11'11	1°04'15
retrograde	-338 Jul 19 j 14:25	24° ∺ 28'19		morning rise	-333 Aug 31 j 01:00	22°Ω00'30	1 0713
min. Earth dist.	-338 Sep 16 j 06:06	19°) 34'09	3.98556 AU	morning 1150	-333 Oct 08 j 23:07	0° mp	
		-, ,,,,,,,,,			00 j 2 5.07	~ ·×	

Planetary Pheno	omena of Jupiter fr	om -400 th	rough 100 (UT	(a), Astrodienst AC	5 7-Dez-2017 14:4	8, page	7
	ical year style is used: T						
retrograde	-333 Dec 29 j 06:34	8° m/52'28			-327 Sep 10 j 17:53	15°R≈	
opposition	-332 Feb 27 j 15:17	3° m 59'07	1°42'45	direct	-327 Oct 13 j 17:43	13°≈12'59	
min. Earth dist.	-332 Feb 28 j 13:41	3° m) 51'54	4.43033 AU		-327 Nov 15 j 12:05	15° ≈	
	-332 Apr 03 j 11:48	30°R Ω			-326 Feb 04 j 04:29	0°) €	
direct	-332 Apr 30 j 05:29	28° Ω 56'26		evening set	-326 Feb 15 j 19:29	2°) (45'22	
	-332 May 27 j 02:56	0° m)		8	,		
evening set	-332 Sep 04 j 01:53	16° Mp 36'33		conjunction	-326 Mar 01 j 01:59	5°) 56'34	-1°-10'-16
max. Earth dist.	-332 Sep 15 j 05:53	19° m 02'39	6.41946 AU	minimum elong	-326 Mar 01 j 01:58	5°) €56'34	1°10'16
	1 3	~		max. Earth dist.	-326 Mar 02 j 12:25	6°) 17'17	5.97422 AU
conjunction	-332 Sep 16 j 21:48	19° m 24'29	1°12'37	morning rise	-326 Mar 14 j 11:47	9°) €09'30	
minimum elong	-332 Sep 16 j 21:48	19° m 24'29	1°12'36	retrograde	-326 Jul 24 j 18:55	29°)(40'57	
morning rise	-332 Sep 29 j 14:48	22° m 11'07		min. Earth dist.	-326 Sep 21 j 08:34	24°) (46'41	3.98979 AU
C	-332 Nov 06 j 07:36	0∘ <mark>⊽</mark>		opposition	-326 Sep 22 j 14:09	24°) (36′39	-1°-46'-25
retrograde	-331 Jan 28 j 03:43	9° ഫ 09'31		direct	-326 Nov 19 j 12:13	19°) (41'20	
opposition	-331 Mar 29 j 21:44	4° ≏ 17'40	1°40'55		-325 Feb 12 j 08:10	$0^{\circ}\mathbf{\Upsilon}$	
min. Earth dist.	-331 Mar 31 j 05:38	4° ₽ 07'29	4.39426 AU	evening set	-325 Mar 25 j 03:12	9° Y '09'12	
	-331 May 09 j 14:09	30°R, M)		Č	j		
direct	-331 May 31 j 13:44	29° m) 16'40		conjunction	-325 Apr 07 j 17:25	12° Y 21'39	-1°-4'-38
	-331 Jun 22 j 16:27	0∘ <u>⊽</u>		minimum elong	-325 Apr 07 j 17:27	12° Y 21'41	1°04'38
evening set	-331 Oct 04 j 21:19	17° ≏ 06'12		max. Earth dist.	-325 Apr 09 j 21:27	12° Y 52'24	6.02271 AU
max. Earth dist.	-331 Oct 15 j 13:23	19° ≏ 28'29	6.35223 AU	morning rise	-325 Apr 21 j 10:04	15° Ƴ 35'14	
	J			Č	-325 Jun 29 j 16:40	0° ႘	
conjunction	-331 Oct 17 j 12:52	19° Ω 54'59	1°00'56	retrograde	-325 Aug 29 j 19:59	5° 8 31'39	
minimum elong	-331 Oct 17 j 12:54	19° ≏ 55'00	1°00'55	min. Earth dist.	-325 Oct 27 j 00:35	0° 8 37'40	4.07313 AU
morning rise	-331 Oct 30 j 02:38	22° ≏ 43'03		opposition	-325 Oct 28 j 09:13	0° 8 26'32	-1°-17'-29
3	-331 Dec 03 j 07:31	0°M		Tr · ·	-325 Oct 31 j 15:07	30° ₹ Υ	
retrograde	-330 Mar 01 j 13:31	10° M ₁4'06		direct	-325 Dec 25 j 17:26	25° Y ′28′16	
opposition	-330 May 01 j 11:35	5° M 22'07	1°10'32		-324 Feb 17 j 23:31	0°8	
min. Earth dist.	-330 May 02 j 21:59	5° M 11'10	4.29947 AU	evening set	-324 Apr 30 j 01:48	14° 8 31'14	
direct	-330 Jul 02 j 15:04	0°M23'34		Č	-324 May 02 j 04:10	15° 8	
	-330 Oct 20 j 03:21	15° ™			, ,	_	
evening set	-330 Nov 05 j 04:33	18°M35'24		conjunction	-324 May 13 j 20:07	17° 8 40'35	0°-35'-6
max. Earth dist.	-330 Nov 16 j 01:13	21°ML04'17	6.23763 AU	minimum elong	-324 May 13 j 20:10	17° 8 40'37	0°35'07
	,			max. Earth dist.	-324 May 15 j 19:13	18° 8 07'37	6.13340 AU
conjunction	-330 Nov 17 j 19:36	21°M28'35	0°31'09	morning rise	-324 May 27 j 15:28	20° 8 50'09	
minimum elong	-330 Nov 17 j 19:38	21°M28'36	0°31'09	C	-324 Jul 09 j 03:52	0° Ⅱ	
morning rise	-330 Nov 30 j 10:17	24° M 21'48		retrograde	-324 Oct 01 j 15:12	9° ∏ 43'59	
Ü	-330 Dec 25 j 19:13	0° ∡ ¹		min. Earth dist.	-324 Nov 29 i 04:05		4.19901 AU
retrograde	-329 Apr 04 j 21:59	12° ∡ ¹47'07		opposition	-324 Nov 30 j 05:06	4° ∏ 40'45	0°-22'-37
opposition	-329 Jun 04 j 20:32	7° ∡ ¹53'17	0°16'49	11	-323 Jan 14 j 08:54	30° ₹ 8	
min. Earth dist.	-329 Jun 05 j 20:36	7° ∡ ¹45'33	4.17187 AU	direct	-323 Jan 28 j 16:09	29° 8 39'40	
direct	-329 Aug 04 j 19:05	2° ₹ 57'25			-323 Feb 12 j 02:16	$\Pi^{\circ}0$	
desc. node	-329 Sep 20 j 13:49	6° ∡ 15'13		asc. node	-323 Apr 27 j 19:58	10° Ⅱ 08'19	
evening set	-329 Dec 07 j 20:25	21° х 40'32		evening set	-323 Jun 04 j 14:11	18° Ⅲ 09'24	
	•				·		
conjunction	-329 Dec 20 j 14:13	24° ∡ °40′15	0°-9'-44	conjunction	-323 Jun 18 j 07:06	21° Ⅲ 12'25	0°05'21
minimum elong	-329 Dec 20 j 14:13	24° ∡ °40′15	0°09'46	minimum elong	-323 Jun 18 j 07:05	21° Ⅲ 12'25	0°05'21
behind sun begin	-329 Dec 20 j 07:36	24° х 36′22		behind sun begin	-323 Jun 17 j 23:03	21° Ⅱ 07'58	
behind sun end	-329 Dec 20 j 20:50	24° ∡ ¹44'08		behind sun end	-323 Jun 18 j 15:06	21° Ⅱ 16′52	
max. Earth dist.	-329 Dec 19 j 15:38	24° ∡ ¹26'57	6.10847 AU	max. Earth dist.	-323 Jun 19 j 11:04	21° Ⅲ 28′01	6.26502 AU
morning rise	-328 Jan 02 j 09:09	27° × 740'51		morning rise	-323 Jul 01 j 22:40	24° Ⅲ 14'35	
	-328 Jan 12 j 08:35	ರ°ರ			-323 Jul 28 j 17:07	0 \circ \odot	
retrograde	-328 May 10 j 10:33	17° る 09'55		retrograde	-323 Nov 02 j 12:59	12° © 05'49	
opposition	-328 Jul 10 j 01:20	12° る 12'52	0°-45'-53	opposition	-322 Jan 01 j 06:36	7° 5 06'14	0°36'16
min. Earth dist.	-328 Jul 10 j 08:08	12° る 10'39	4.05132 AU	min. Earth dist.	-323 Dec 31 j 21:00	7° 5 09'26	4.32441 AU
direct	-328 Sep 07 j 14:47	7° る 19'04		direct	-322 Mar 03 j 02:17	2° 5 03'27	
evening set	-327 Jan 10 j 10:07	26° ප 33'21		evening set	-322 Jul 08 j 07:01	20°503'42	
-	·			-	·		
conjunction	-327 Jan 23 j 09:15	29° る 39'48	0°-48'-43	conjunction	-322 Jul 21 j 17:12	22° © 59'22	0°42'29
minimum elong	-327 Jan 23 j 09:12	29° る 39'47	0°48'44	minimum elong	-322 Jul 21 j 17:10	22° © 59'21	0°42'30
max. Earth dist.	-327 Jan 23 j 14:48	29° る 43'09	6.00755 AU	max. Earth dist.	-322 Jul 21 j 17:19	22° © 59'26	6.37455 AU
	-327 Jan 24 j 18:53	0° ≈		morning rise	-322 Aug 04 j 00:55	25° © 53'39	
morning rise	-327 Feb 05 j 11:02	2° ≈ 47'47		-	-322 Aug 23 j 07:17	$0^{\circ}\Omega$	
	-327 Apr 02 j 00:33	15° ≈		retrograde	-322 Dec 03 j 03:39	13° Ω 00′53	
retrograde	-327 Jun 17 j 04:11	23° ≈ 07'27		opposition	-321 Feb 01 j 05:36	8° Ω 05′02	1°21'52
opposition	-327 Aug 16 j 09:31	18° ≈ 06′27	-1°-34'-18	min. Earth dist.	-321 Feb 01 j 13:38	8° Ω 02′25	4.41103 AU
min. Earth dist.	-327 Aug 15 j 18:23	18° ≈ 11'30	3.98138 AU	direct	-321 Apr 04 j 05:01	3° Ω 01'46	

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -321 in astronomical counting style is the year 322 BCE in historical counting style. -321 Jul 12 j 22:07 15°€ -315 Mar 13 i 09:21 15°**≈** -321 Aug 09 j 08:19 20°**Ω**43'56 -315 Jun 22 i 10:40 28°≈16'46 evening set retrograde max. Earth dist. -321 Aug 21 j 10:31 23°**Ω**21′01 6.43107 AU opposition -315 Aug 21 j 13:21 23°≈15'14 -1°-38'-25 -315 Aug 20 j 20:15 min. Earth dist. 23°≈20'57 3.97100 AU 18°**≈**21'36 23°**Ω**33'55 -315 Oct 18 j 19:03 conjunction -321 Aug 22 j 10:16 1°06'32 direct 23°**Ω**33'54 -321 Aug 22 j 10:14 1°06'32 -314 Jan 17 j 10:12 0°**)**€ minimum elong -321 Sep 04 j 08:59 26°**Ω**22'21 -314 Feb 20 j 23:09 7°**¥**57'33 morning rise evening set -321 Sep 21 j 10:42 0° m -320 Jan 02 j 11:08 13° Mp 11'49 -314 Mar 06 j 07:02 retrograde conjunction 11°**米**09'35 -1°-11'-6 -314 Mar 06 j 07:01 11°**₩**09'35 opposition -320 Mar 02 j 22:36 8° Mp 18'47 1°44'05 minimum elong 1°11'06 -314 Mar 07 j 22:12 min. Earth dist. -320 Mar 03 j 21:55 8° Mp 11'17 4.43524 AU max. Earth dist. 11°**)** 33'08 5.96937 AU -320 May 04 j 14:03 -314 Mar 19 j 17:59 14°**)**€23'15 direct 3° m 16'19 morning rise $0^{\circ}\Upsilon$ -320 Sep 08 j 08:19 -314 Jun 02 j 15:15 evening set 20° m 54'54 -320 Sep 19 j 08:36 max. Earth dist. 23° Mp 19'06 6.41991 AU retrograde -314 Jul 30 j 00:33 4°Υ55'12 min. Earth dist. -314 Sep 26 j 10:31 0°**Υ**01'07 3.99121 AU conjunction -320 Sep 21 j 03:11 23° m/42'25 1°12'07 -314 Sep 26 j 13:48 30°**₹** minimum elong -320 Sep 21 j 03:12 23° m/42'25 1°12'08 opposition -314 Sep 27 j 17:23 29°**¥**50′38 -1°-44'-35 morning rise -320 Oct 03 j 19:32 26° M 28'46 direct -314 Nov 24 j 14:32 24°**)** 54'59 -320 Oct 20 j 05:12 0∘**⊽** -313 Jan 20 j 14:10 $0^{\circ}\Upsilon$ retrograde -319 Feb 01 j 12:17 13°**≏**28'14 evening set -313 Mar 30 j 10:01 14° **Y**22'38 opposition -319 Apr 03 j 06:42 8°**≏**36'29 1°38'16 min. Earth dist. -319 Apr 04 j 16:36 8°**£**25'40 4.39002 AU conjunction -313 Apr 13 j 01:05 17°**Y**35'10 -1°-1'-35 direct -319 Jun 04 j 23:36 3°**£**35'44 minimum elong -313 Apr 13 j 01:07 17°**Y**35′12 1°01'35 evening set -319 Oct 09 i 02:10 21°**♀**25'47 max. Earth dist. -313 Apr 15 i 05:25 18° **Y**06'00 6.03010 AU max. Earth dist. -319 Oct 19 j 17:17 23°**♀**47'51 6.34352 AU morning rise -313 Apr 26 j 18:45 20°\bar{Y}48'48 -313 Jun 07 j 03:44 0°8 -319 Oct 21 j 17:28 24°**♀**14'47 0°57'48 -313 Sep 03 j 18:33 10°839'07 conjunction retrograde -319 Oct 21 j 17:30 24°**₽**14'48 0°57'47 -313 Oct 31 j 22:47 5°845'20 4.08548 AU minimum elong min. Earth dist. -319 Nov 03 j 06:59 27°**₽**03'09 -313 Nov 02 j 08:01 5°**8**34'00 -1°-10'-40 morning rise opposition -319 Nov 16 j 16:36 -313 Dec 30 j 18:49 0°835'14 0°M direct -318 Mar 06 j 00:23 14°M39'04 -312 Apr 14 j 18:56 retrograde 15°8 -318 May 06 j 00:03 1°04'21 -312 May 05 j 06:07 19°**8**34'38 9°ML46'55 evening set opposition -318 May 07 j 09:27 min. Earth dist. 9°**™**36'16 4.28664 AU -318 Jul 06 j 23:38 -312 May 19 j 00:45 4°ML48'41 22°**8**43'22 0°-29'-35 direct conjunction -318 Oct 03 j 07:52 -312 May 19 j 00:47 22°**8**43'23 0°29'35 15°M minimum elong -312 May 20 j 23:27 23°**8**10'05 6.14973 AU -318 Nov 09 j 11:47 evening set 23°M03'34 max. Earth dist. -318 Nov 20 j 09:53 -312 Jun 01 j 19:51 25°**8**52'06 max. Earth dist. 25°M33'48 6.22171 AU morning rise -312 Jun 20 j 08:46 $\Pi^{\circ}0$ conjunction -318 Nov 22 j 02:57 25°ML57'26 0°26'03 retrograde -312 Oct 06 j 08:51 14°**Ⅲ**36'51 minimum elong -318 Nov 22 j 02:59 25°M57'27 0°26'03 opposition -312 Dec 04 j 22:00 9°**Д**33'57 0°-13'-53 morning rise -318 Dec 04 j 17:57 28°M51'29 min. Earth dist. -312 Dec 03 j 22:52 9°**Д**41'46 4.21718 AU -318 Dec 09 j 18:11 direct -311 Feb 02 j 14:05 4°**Ⅲ**32'29 0°×7 retrograde -317 Apr 09 j 18:08 17°**∡**124'58 -311 Mar 06 j 04:09 6°**Ⅱ**06'07 asc. node -317 Jun 09 j 14:42 12°**∡**³30'49 0°08'28 -311 Jun 09 j 12:46 22°**Ⅲ**57'16 opposition evening set min. Earth dist. -317 Jun 10 j 14:36 12°**≯**23′08 4.15370 AU -317 Aug 02 j 12:18 7°**∡**³39'49 -311 Jun 23 i 04:53 25°**I**59'11 0°11'10 desc. node conjunction -317 Aug 09 i 09:45 7°**∡**³35'14 -311 Jun 23 i 04:52 direct minimum elong 25°**Ⅲ**59'11 0°11'09 -311 Jun 22 j 22:48 25°**I**55'50 evening set -317 Dec 12 i 09:11 26°**₹**'23'25 behind sun begin -317 Dec 24 j 06:40 -311 Jun 23 i 10:56 26°**I**I02'32 max. Earth dist. 29°**∡**11′50 6.08967 AU behind sun end max. Earth dist. -311 Jun 24 i 05:34 26°**Ⅱ**12'54 6.28324 AU 29°**Ⅱ**00'10 conjunction -317 Dec 25 i 03:37 29° **2**4'13 0°-15'-25 morning rise -311 Jul 06 i 19:36 -317 Dec 25 i 03:35 29°**х** 24'13 0°15'26 -311 Jul 11 j 08:32 0ಂತಾ minimum elong -317 Dec 25 j 00:58 29°×722'40 retrograde -311 Nov 06 j 22:23 16°9543'14 behind sun begin -317 Dec 25 j 06:13 29°**х** 25'45 -310 Jan 05 j 18:03 behind sun end opposition 11°9544'04 0°43'55 -317 Dec 27 j 16:05 -310 Jan 05 j 10:18 0°₹ min. Earth dist. 11°5546'39 4.34098 AU -316 Jan 06 j 23:27 morning rise 2°る26'01 direct -310 Mar 07 j 17:39 6°9541'01 -316 May 15 j 11:12 retrograde 22°る04'37 evening set -310 Jul 12 j 22:54 24°937'15 -316 Jul 15 j 01:22 17°る07'07 0°-53'-49 opposition min. Earth dist. -316 Jul 15 j 05:06 17°**る**05'54 4.03372 AU conjunction -310 Jul 26 j 07:58 27°931'53 0°46'54 -316 Sep 12 j 08:55 12°る13'29 -310 Jul 26 j 07:55 27°531'52 0°46'54 direct minimum elong -315 Jan 08 j 17:54 max. Earth dist. -310 Jul 26 j 05:11 27°**©**30'22 6.38801 AU 0°≈ -315 Jan 15 j 06:42 evening set 1°≈33'19 -310 Aug 06 j 16:01 0 $^{\circ}\Omega$ morning rise -310 Aug 08 j 14:15 0°**£**25′03 conjunction -315 Jan 28 j 06:49 4°≈40'52 0°-52'-57 -310 Oct 28 j 06:48 15°**Ω** minimum elong -315 Jan 28 j 06:46 4°≈40'50 0°52'59 retrograde -310 Dec 07 j 11:19 17°**Ω**27'24 max. Earth dist. -315 Jan 28 j 15:46 4°**≈**46'15 5.99272 AU -309 Jan 16 j 18:15 15°RΩ morning rise -315 Feb 10 j 09:44 7°≈50'01 -309 Feb 05 j 14:23 12°**Q**32'00 1°26'36 opposition

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -309 in astronomical counting style is the year 310 BCE in historical counting style. -309 Feb 06 i 00:53 12°**Ω**28'35 4.42037 AU min. Earth dist. max. Earth dist. -303 Feb 03 i 02:16 10°≈06'28 5.98342 AU direct -309 Apr 08 j 17:16 7°Ω28'46 -303 Feb 15 i 15:30 13°≈07'39 morning rise -309 Jun 23 j 21:30 15°Ω -303 Feb 23 j 12:22 15°≈ -309 Aug 13 j 18:56 25°**Ω**08'47 -303 May 09 j 20:51 0°**₩** evening set -303 Jun 27 j 21:54 3°**¥**38′25 retrograde conjunction -309 Aug 26 j 19:38 27°**Ω**58'05 1°08'31 -303 Aug 16 j 09:22 30°R≈ 1°08'31 -1°-41'-55 -309 Aug 26 j 19:36 opposition minimum elong 27°**Ω**58'04 -303 Aug 26 j 22:14 28°**≈**36′25 -309 Aug 25 j 15:25 27°**Ω**42'46 min. Earth dist. max. Earth dist. 6.43526 AU -303 Aug 26 j 02:22 28°**≈**43'04 3.96870 AU -309 Sep 05 j 04:23 23°**≈**42'42 0° m -303 Oct 24 j 00:40 direct -309 Sep 08 j 17:23 morning rise 0° Mp 45'56 -303 Dec 26 j 20:10 0°**∀** -308 Jan 06 j 19:39 retrograde 17° Mp 34'41 evening set -302 Feb 26 j 07:20 13°**升** 18′52 -308 Mar 07 j 07:50 opposition 12° m 41'52 1°44'59 -308 Mar 08 j 09:30 -302 Mar 11 j 16:09 16°**)** 31'10 -1°-11'-26 min. Earth dist. 12° m 33'37 4.43415 AU conjunction direct -308 May 09 j 00:44 7°m/39'31 minimum elong -302 Mar 11 j 16:09 16°**₭**31'10 1°11'27 evening set -308 Sep 12 j 16:25 25° m 18'25 max. Earth dist. -302 Mar 13 j 09:38 16°**)** 56'04 5.97407 AU max. Earth dist. -308 Sep 23 j 15:26 27° My 42'096.41357 AU morning rise -302 Mar 25 j 04:21 19°**)**45'06 -302 May 09 j 20:11 $0^{\circ}\Upsilon$ conjunction -308 Sep 25 j 10:42 28° m 05'54 1°11'16 retrograde -302 Aug 04 j 04:45 10°**Y**13′09 minimum elong -308 Sep 25 j 10:43 28° Mp 05'54 1°11'16 opposition -302 Oct 02 j 22:05 5°**℃**08'17 -1°-41'-54 -308 Oct 04 j 02:42 0∘**⊽** min. Earth dist. -302 Oct 01 j 13:10 5°Υ19'29 4.00254 AU morning rise -308 Oct 08 j 02:14 0°**£**52'13 direct -302 Nov 29 j 19:50 0°Υ12'15 -301 Apr 04 j 17:10 retrograde -307 Feb 05 i 22:52 17°**♀**55'03 evening set 19°Y35'56 opposition -307 Apr 07 j 19:05 13°**♀**03'21 1°35'05 min. Earth dist. -307 Apr 09 i 05:07 12°**♀**52'31 4.37879 AU conjunction -301 Apr 18 i 09:04 22°**Y**'48'03 0°-58'-7 direct -307 Jun 09 i 09:38 8°**£**02'56 minimum elong -301 Apr 18 j 09:07 22° Y 48'05 0°58'07 -307 Oct 13 i 11:17 25°**£**55'43 max. Earth dist. -301 Apr 20 j 14:44 23°Y19'32 6.04699 AU evening set max. Earth dist. -307 Oct 24 j 01:16 28°**♀**17'44 6.32824 AU -301 May 02 j 03:05 26°**Y**′01′04 morning rise -301 May 19 j 12:25 0°8 -307 Oct 26 j 02:14 28°**£**45'13 0°54'13 -301 Aug 19 j 00:41 15°8 conjunction -307 Oct 26 j 02:16 -301 Sep 08 j 16:50 28°**△**45'14 0°54'13 15°**8**41'48 minimum elong retrograde -301 Sep 29 j 02:31 -307 Oct 31 j 15:28 15°R₩ 0°M -307 Nov 07 j 15:50 min. Earth dist. -301 Nov 05 j 21:25 10°**8**47'40 4.10582 AU morning rise 1°M34'12 -306 Jan 15 j 09:55 -301 Nov 07 j 05:07 -1°-3'-27 15°M⋅ 10°**8**36'51 opposition -306 Mar 10 j 20:19 -300 Jan 04 j 20:35 5°**8**37'41 retrograde 19°**M**₁7'18 direct -306 May 06 j 04:23 -300 Mar 26 j 22:45 15°8 15°RM 14°M24'58 0°57'30 -306 May 10 j 18:36 -300 May 10 j 07:58 24°**8**31'03 opposition evening set 14°ML14'15 4.26802 AU -306 May 12 j 04:13 min. Earth dist. direct -306 Jul 11 j 15:33 9°**™**27'05 conjunction -300 May 24 j 02:31 27°838'48 0°-24'-1 -306 Sep 12 j 08:40 15°M minimum elong -300 May 24 j 02:32 27°838'49 0°24'01 evening set -306 Nov 14 j 00:49 27°M46'40 max. Earth dist. -300 May 25 j 23:05 28°804'09 6.17168 AU -306 Nov 23 j 16:31 0°⊀ -300 Jun 03 j 11:12 $\Pi^{\circ}0$ max. Earth dist. -306 Nov 25 j 01:14 0°**≯**18'54 6.20147 AU morning rise -300 Jun 06 j 21:18 0°**Ⅱ**46′23 retrograde -300 Oct 10 j 20:05 19°**Ⅲ**20'39 -306 Nov 26 j 16:24 0°**∡**1'32 0°20'29 -300 Dec 09 j 11:11 14°**I**18'14 0°-5'-22 conjunction opposition -306 Nov 26 j 16:26 0°**∡**¹41'33 0°20'29 min. Earth dist. -300 Dec 08 j 13:21 14°**Д**25'36 4.23865 AU minimum elong -306 Dec 09 i 07:55 3°**∡**³36'40 -299 Jan 13 j 21:58 10°**Ⅱ**14'12 morning rise asc. node -305 Apr 14 j 19:36 -299 Feb 07 i 06:59 9°**Ⅱ**16′28 retrograde 22°**х** 19′52 direct -305 Jun 11 j 12:32 -299 Jun 14 j 07:22 27°**II**35'52 desc. node 17°**∡**¹49'43 evening set -305 Jun 14 j 16:17 17°**₹**25'21 0°00'-29 -299 Jun 25 j 04:31 opposition 0ಂತಾ min. Earth dist. -305 Jun 15 i 13:10 17°**∡**18'37 4.13340 AU direct -305 Aug 14 j 05:04 12°**₹**30′10 conjunction -299 Jun 27 i 22:38 0°936'36 0°16'43 -305 Dec 11 j 06:17 0°궁 minimum elong -299 Jun 27 i 22:36 0°936'36 0°16'43 -305 Dec 17 j 05:20 1°る23'53 max. Earth dist. -299 Jun 28 j 18:40 0°9547'42 6.30252 AU evening set -305 Dec 29 j 07:07 -299 Jul 11 j 12:18 max. Earth dist. 4°る15'32 6.07123 AU morning rise 3°936'20 -299 Nov 11 j 06:38 retrograde 21°9511'46 -305 Dec 30 j 00:23 -298 Jan 10 j 02:16 conjunction 4°る25'47 0°-21'-23 opposition 16°9513'11 0°51'03 -305 Dec 30 j 00:21 minimum elong 4°る25'46 0°21'23 min. Earth dist. -298 Jan 09 j 22:07 16°9514'34 4.35659 AU -304 Jan 11 j 21:08 7°る28'47 direct -298 Mar 12 j 07:00 11°9510'03 morning rise -304 May 20 j 20:49 27°る16'38 -298 Jul 17 j 11:03 29°902'55 retrograde evening set -304 Jul 20 j 08:48 22°る18'37 -1°-1'-52 -298 Jul 21 j 20:28 opposition 0 $^{\circ}$ Ω -304 Jul 20 j 09:40 22°る18'20 4.01903 AU min. Earth dist. -304 Sep 17 j 12:33 direct 17°る25'08 conjunction -298 Jul 30 j 18:59 1°**Ω**56'39 0°50'54 -304 Dec 22 j 01:31 0°≈ minimum elong -298 Jul 30 j 18:56 1°**£**56'38 0°50'54 evening set -303 Jan 20 j 10:16 6°≈49'07 max. Earth dist. -298 Jul 30 j 11:45 1°**£**52'43 6.39855 AU morning rise -298 Aug 13 j 00:03 4°**Ω**48'54 -303 Feb 02 j 11:31 9°≈57'35 0°-57'-3 -298 Oct 02 j 22:36 15°**Ω** conjunction -303 Feb 02 j 11:28 9°≈57'33 0°57'04 -298 Dec 11 j 15:57 21°Ω47'55 minimum elong retrograde

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -297 in astronomical counting style is the year 298 BCE in historical counting style. -297 Feb 09 i 20:43 16°Ω52'56 1°30'45 22°る40'32 direct -292 Sep 22 i 16:27 opposition min. Earth dist. -297 Feb 10 i 09:28 16°Ω48'47 4.42553 AU -292 Dec 01 i 14:50 0°≈ -297 Feb 24 j 16:45 15°RΩ -291 Jan 25 j 14:41 12°≈06'44 evening set -297 Apr 13 j 01:32 11°**Ω**49'44 -291 Feb 06 j 14:36 direct 15°≈ -297 May 30 j 15:07 15°**Ω** -291 Feb 07 j 16:44 -297 Aug 18 j 03:19 29°**Ω**29'14 15°≈15'46 evening set conjunction -1°00'-41 -291 Feb 07 j 16:41 -297 Aug 20 j 12:22 0°m 1°00'42 minimum elong 15°≈15'44 -297 Aug 29 j 20:28 6.43458 AU -291 Feb 08 j 10:56 max. Earth dist. 2°**m**01'31 max. Earth dist. 15°≈26'44 5.97917 AU 18°**≈**26′30 -291 Feb 20 j 21:58 morning rise -291 Apr 13 j 20:32 conjunction -297 Aug 31 j 03:03 2° m 18'09 1°10'05 0°**∀** minimum elong -297 Aug 31 j 03:01 2° Mp 18'08 1°10'05 retrograde -291 Jul 03 j 05:01 8°**)** 58'47 -297 Sep 12 j 23:41 5° m 05'37 -291 Aug 31 j 06:47 morning rise min. Earth dist. 4°**₭**03'58 3.97103 AU -296 Jan 11 j 02:59 21° m 55'24 -291 Sep 01 j 05:56 retrograde opposition 3°**¥**56'11 -1°-44'-32 opposition -296 Mar 11 j 15:57 17° Mp 02'54 1°45'20 -291 Oct 05 j 11:28 30°R≈ min. Earth dist. -296 Mar 12 j 19:36 16° **m** 54'01 4.42786 AU direct -291 Oct 29 j 06:29 29°**≈**02'12 direct -296 May 13 j 09:11 12° Mp 00'48 -291 Nov 22 j 02:08 0°**)**€ evening set -296 Sep 17 j 00:01 29° Mp 41'47 evening set -290 Mar 03 j 14:25 18°**¥**36'55 -296 Sep 18 j 09:24 0∘**⊽** max. Earth dist. -296 Sep 27 j 19:14 2°**₽**03'56 6.40195 AU conjunction -290 Mar 17 j 00:24 21°**)**49'18 -1°-11'-12 minimum elong -290 Mar 17 j 00:25 21°**)**49'19 1°11'12 conjunction -296 Sep 29 j 17:35 2°**£**29'27 1°10'02 max. Earth dist. -290 Mar 18 j 21:36 22° X 16'21 5.98260 AU minimum elong -296 Sep 29 i 17:36 2°**ي**29'28 1°10'01 morning rise -290 Mar 30 j 13:24 25°**)** 03'13 morning rise -296 Oct 12 j 08:50 5°**2**16'05 -290 Apr 20 j 19:38 $0^{\circ}\Upsilon$ retrograde -295 Feb 10 i 13:00 22°**₽**24'12 retrograde -290 Aug 09 i 08:42 15°**Y**25'41 opposition -295 Apr 12 j 08:28 17°**♀**32'29 1°31'21 min. Earth dist. -290 Oct 06 i 15:48 10°**Y**31'43 4.01621 AU min. Earth dist. -295 Apr 13 j 19:24 17°**£**21'21 4.36263 AU -290 Oct 08 i 00:21 10°**Y**20′38 -1°-38'-27 opposition -295 Jun 13 j 21:19 12°**△**32'22 -290 Dec 05 j 00:48 5°**Y**24′09 direct direct -295 Oct 15 j 16:21 evening set -289 Apr 09 j 22:27 24°**Y**43'22 oom. -295 Oct 17 j 21:07 0°M29'26 evening set max. Earth dist. -295 Oct 28 j 12:55 2°M53'03 6.30895 AU -289 Apr 23 j 15:00 27°**Υ**54'59 0°-54'-16 conjunction -289 Apr 23 j 15:03 27°Υ55'00 0°54'17 minimum elong 6.06450 AU -295 Oct 30 j 12:10 3°**M**₁9'41 0°50'17 max. Earth dist. -289 Apr 25 j 20:37 28°**Y**26′17 conjunction -295 Oct 30 j 12:12 -289 May 02 j 13:24 0° 8 3°ML19'43 0°50'17 minimum elong -295 Nov 12 j 01:45 -289 May 07 j 09:30 1°807'22 6°M09'30 morning rise morning rise -289 Jul 13 j 13:24 -295 Dec 23 j 18:27 15°8 15°M -294 Mar 15 j 16:08 retrograde -289 Sep 13 j 10:26 20°**8**38'27 retrograde 24°ML01'08 19° ML08'35 0° 50'11 -294 May 15 j 15:04 -289 Nov 11 j 23:46 15°**8**33'45 0°-55'-56 opposition opposition min. Earth dist. -294 May 16 j 22:58 18°M58'25 4.24694 AU min. Earth dist. -289 Nov 10 j 16:19 15°**8**44'28 4.12534 AU -294 Jun 23 j 05:58 15°RM -289 Nov 16 j 03:04 15°R direct -294 Jul 16 j 07:08 14°M11'10 direct -288 Jan 09 j 17:47 10°**8**34'10 -294 Aug 08 j 08:11 15°M -288 Mar 03 j 20:28 15°8 -294 Nov 07 j 06:02 -288 May 15 j 07:55 29°**8**22'11 0°×7 evening set evening set -294 Nov 18 j 16:16 2°**∡**36'11 -288 May 18 j 03:01 Π °0 max. Earth dist. -294 Nov 29 j 19:11 5°**∡**10'37 6.18047 AU conjunction -288 May 29 j 02:16 2°**I**I28'59 0°-18'-22 -294 Dec 01 i 08:05 5°**х** 32'03 0°14'43 -288 May 29 j 02:17 2°**II**28'59 0°18'22 conjunction minimum elong -294 Dec 01 i 08:05 -288 May 30 j 18:47 minimum elong 5°**∡**³32'03 0°14'42 max. Earth dist. 2°**Д**51'56 6.19170 AU -294 Dec 01 i 04:32 5°**∡**³30′00 -288 Jun 11 j 20:42 behind sun begin morning rise 5°**Ⅲ**35'31 -294 Dec 01 j 11:38 5°**∡**³34'06 -288 Oct 15 i 08:31 24°**Ⅱ**00′29 behind sun end retrograde morning rise -294 Dec 14 i 00:17 8°×28'21 asc. node -288 Nov 23 j 18:34 21°II33'46 retrograde -293 Apr 20 j 00:43 27°×721'23 opposition -288 Dec 13 j 23:27 18°II58'34 0°03'03 desc. node -293 Apr 20 j 03:00 27°×721'23 min. Earth dist. -288 Dec 13 j 04:52 19°**Ⅱ**04'50 4.25727 AU -293 Jun 19 j 20:07 22°**₹**26'23 0°-9'-37 direct -287 Feb 12 j 00:43 13°**I**I56'31 opposition -293 Jun 20 j 14:21 22°**х** 20′30 min. Earth dist. 4.11413 AU -287 Jun 08 j 23:11 0ಂತಾ -293 Aug 19 j 04:57 17°**∡**°31'30 direct evening set -287 Jun 19 j 01:00 2°9511'33 -293 Nov 23 j 18:07 0°₹ evening set -293 Dec 22 j 03:31 6°る30'08 conjunction -287 Jul 02 j 15:33 5°511'18 0°22'08 minimum elong -287 Jul 02 j 15:31 5°9511'18 0°22'09 -292 Jan 03 j 23:26 9°る33'03 0°-27'-15 -287 Jul 03 j 08:30 5°520'39 6.31841 AU conjunction max. Earth dist. -292 Jan 03 j 23:24 9°**る**33'02 0°27'16 -287 Jul 16 j 04:04 minimum elong morning rise 8°909'55 -292 Jan 03 j 11:51 9°**る**26'09 6.05559 AU -287 Nov 15 j 12:27 max. Earth dist. retrograde 25°938'58 -292 Jan 16 j 21:02 -286 Jan 14 j 10:16 morning rise 12°る37'07 opposition 20°9540'57 0°57'52 -292 Apr 15 j 10:44 0°≈ min. Earth dist. -286 Jan 14 j 07:51 20°9541'45 4.36881 AU retrograde -292 May 26 j 07:06 2°≈32'31 direct -286 Mar 16 j 17:55 15°937'45 -292 Jul 06 j 08:16 30°Ŗる -286 Jul 05 j 15:48 0° Ω -292 Jul 25 j 17:15 27°る33'54 -1°-9'-29 -286 Jul 21 j 23:31 3°**£**28′21 opposition evening set min. Earth dist. -292 Jul 25 j 14:47 27°る34'43 4.00880 AU

Planetary Pheno	omena of Jupiter fr	om -400 th	rough 100 (UT), Astrodienst AC	7-Dez-2017 14:4	8, page	11
Attention, astronom	ical year style is used: T	he year -286 ii	n astronomical cour	nting style is the year 2	287 BCE in historical co	unting style.	
conjunction	-286 Aug 04 j 06:13	6° Ω 21'18	0°54'38	retrograde	-280 May 31 j 12:56	7° ≈ 43'16	
minimum elong	-286 Aug 04 j 06:10	6° Ω 21'17	0°54'37	opposition	-280 Jul 30 j 23:04	2° ≈ 44'03	-1°-16'-21
max. Earth dist.	-286 Aug 03 j 18:33	6° Ω 14'57	6.40619 AU	min. Earth dist.	-280 Jul 30 j 16:45	2° ≈ 46'08	4.00269 AU
morning rise	-286 Aug 17 j 10:07	9° Ω 12'46			-280 Aug 21 j 23:49	30°Ŗる	
<i>3 3 3 3 3 3 3 3 3 3</i>	-286 Sep 14 j 00:23	15° Ω		direct	-280 Sep 27 j 18:02	27° る 50'43	
retrograde	-286 Dec 15 j 23:15	26° Ω 09'22			-280 Nov 03 j 01:53	0° ≈	
opposition	-285 Feb 14 j 04:10	21°Ω14'52	1°34'26		-279 Jan 21 j 00:40	15° ≈	
min. Earth dist.	-285 Feb 14 j 20:07	21°Ω09'42	4.42829 AU	evening set	-279 Jan 30 j 16:42	17° ≈ 17'58	
direct	-285 Apr 17 j 12:10	16°Ω11'48	4.4202) 110	evening set	277 Juli 30 j 10.42	17 7017 30	
uncet	-285 Aug 04 j 08:05	0°m)		conjunction	-279 Feb 12 j 19:49	20° ≈ 27'28	-1°-3'-43
				·			
evening set	-285 Aug 22 j 12:19	3° m 51'15	C 42204 ATT	minimum elong	-279 Feb 12 j 19:47	20°≈27'27	1°03'44
max. Earth dist.	-285 Sep 03 j 01:10	6° Mg 21′26	6.43204 AU	max. Earth dist.	-279 Feb 13 j 19:23	20°≈41'40	5.97839 AU
				morning rise	-279 Feb 26 j 01:53	23°≈38'38	
conjunction	-285 Sep 04 j 11:07	6° Mg 39′54	1°11'16		-279 Mar 25 j 09:40	0° ∀	
minimum elong	-285 Sep 04 j 11:06	6° Mp 39′53	1°11'16	retrograde	-279 Jul 08 j 11:00	14° ¥ 10′58	
morning rise	-285 Sep 17 j 06:53	9° m ,27'07		min. Earth dist.	-279 Sep 05 j 09:49	9° ∺ 16′03	3.97581 AU
retrograde	-284 Jan 15 j 11:46	26° Mp 18'37		opposition	-279 Sep 06 j 09:53	9° 米 07'56	-1°-46'-11
opposition	-284 Mar 16 j 01:48	21°My26'19	1°45'05	direct	-279 Nov 03 j 10:26	4°) 13′42	
min. Earth dist.	-284 Mar 17 j 06:27	21° m) 17'08	4.42047 AU	evening set	-278 Mar 08 j 18:07	23°) 46′24	
direct	-284 May 17 j 18:31	16° Mp 24'30					
	-284 Sep 02 j 02:55	0∘ ত		conjunction	-278 Mar 22 j 05:02	26°) 58′46	-1°-10'-23
evening set	-284 Sep 21 j 08:34	4° ₽ 07'41		minimum elong	-278 Mar 22 j 05:03	26° ¥ 58'47	1°10'23
max. Earth dist.	-284 Oct 02 j 03:45	6° £ 30'14	6.39036 AU	max. Earth dist.	-278 Mar 24 j 03:54	27° ¥ 26'43	5.99218 AU
	,				-278 Apr 03 j 21:41	0° Υ	
conjunction	-284 Oct 04 j 01:40	6° £ 55'36	1°08'22	morning rise	-278 Apr 04 j 19:03	0° Υ 12'38	
minimum elong	-284 Oct 04 j 01:41	6° £ 55'37	1°08'21	retrograde	-278 Aug 14 j 07:01	20° Υ 29'12	
morning rise	-284 Oct 16 j 16:21	ი — 33 37 9° - 242'31	1 00 21	opposition	-278 Oct 12 j 22:29	15° Υ 24'04	-1°-34'-21
-	-	9 = 4 2 31 26° £ 55'56		min. Earth dist.	-	15° Υ 35'29	4.02967 AU
retrograde	-283 Feb 15 j 03:03		1927/02		-278 Oct 11 j 12:58	13 γ 33 29 10° Υ 27'10	4.02907 AU
opposition	-283 Apr 16 j 23:18	22° ♀ 04'17	1°27'02	direct	-278 Dec 09 j 23:24		
min. Earth dist.	-283 Apr 18 j 10:23	21° ⊆ 53'08	4.34763 AU	evening set	-277 Apr 15 j 00:05	29° Y '42'23	
direct	-283 Jun 18 j 10:08	17° ≏ 04'39			-277 Apr 16 j 06:32	0°8	
	-283 Sep 29 j 01:20	0° M ₊					
evening set	-283 Oct 22 j 08:08	5° M ∙05'27		conjunction	-277 Apr 28 j 17:06	2° 8 53'30	0°-50'-8
max. Earth dist.	-283 Nov 01 j 23:40	7° M 29'35	6.29191 AU	minimum elong	-277 Apr 28 j 17:09	2° 8 53'32	0°50'09
				max. Earth dist.	-277 Apr 30 j 20:19	3° 8 23'18	6.08054 AU
conjunction	-283 Nov 03 j 22:57	7° M 56'21	0°46'01	morning rise	-277 May 12 j 11:58	6° 8 05'18	
minimum elong	-283 Nov 03 j 23:00	7°M56'22	0°46'01		-277 Jun 22 j 03:18	15° ∀	
morning rise	-283 Nov 16 j 12:51	10°M46'59		retrograde	-277 Sep 18 j 01:57	25° 8 27'47	
	-283 Dec 05 j 14:11	15° M ₀		min. Earth dist.	-277 Nov 15 j 10:01	20° 8 33'17	4.14218 AU
retrograde	-282 Mar 20 j 13:42	28°M46'30		opposition	-277 Nov 16 j 15:12	20° 8 23'20	0°-48'-18
opposition	-282 May 20 j 12:28	23°M53'43	0°42'29	direct	-276 Jan 14 j 13:40	15° 8 23'21	
min. Earth dist.	-282 May 21 j 18:31	23°M44'07	4.22902 AU		-276 May 01 j 13:34	0°II	
direct	-282 Jul 21 j 00:56	18°ML56'43		evening set	-276 May 20 j 04:59	4° Ⅱ 07'12	
anov	-282 Oct 20 j 17:59	0° ∡ 7		evening sec	270 May 20 J 0 Mes		
evening set	-282 Nov 23 j 07:37	7° × ⁷ 25'59		conjunction	-276 Jun 02 j 23:18	7° Ⅱ 13'14	0°-12'-46
evening set	-202 140V 23 j 07.37	1 7 23 37		minimum elong	-276 Jun 02 j 23:19	7° Ⅱ 13'15	0°12'47
agniumation	202 Dec. 05 : 22:57	100.722145	0°08'52	Č	-	7° Ⅱ 1313	0 1247
conjunction minimum elong	-282 Dec 05 j 23:57	10° x ⁷ 22'45		behind sun begin	-276 Jun 02 j 18:16	7° 耳 16'05	
Č	-282 Dec 05 j 23:58	10° x 22'46	0°08'52	behind sun end	-276 Jun 03 j 04:21		(20021 ATT
behind sun begin	-282 Dec 05 j 17:04	10° ₹ 18'46		max. Earth dist.	-276 Jun 04 j 13:55	7° I 35'01	6.20821 AU
behind sun end	-282 Dec 06 j 06:52	10° ∡ ¹26'46		morning rise	-276 Jun 16 j 17:08	10° Ⅱ 18'49	
max. Earth dist.	-282 Dec 04 j 15:37		6.16349 AU	asc. node	-276 Oct 04 j 16:08	28° ∐ 13'41	
morning rise	-282 Dec 18 j 16:36	13° ∡ ′20′01		retrograde	-276 Oct 19 j 17:27	28° Ⅱ 35'55	
desc. node	-281 Feb 27 j 12:28	27° × 741'17		opposition	-276 Dec 18 j 09:25	23° Ⅱ 34'33	0°11'14
	-281 Mar 16 j 16:45	0°₹		min. Earth dist.	-276 Dec 17 j 16:21	23° Ⅱ 40'17	4.27213 AU
retrograde	-281 Apr 25 j 04:59	2° る 21'27		direct	-275 Feb 16 j 14:07	18° Ⅲ 32'18	
	-281 Jun 04 j 01:13	30°₽ ⋌ ¹			-275 May 22 j 19:49	0 \circ \odot	
opposition	-281 Jun 24 j 23:25	27° х 26′03	0°-18'-36	evening set	-275 Jun 23 j 17:05	6° 5 44'19	
min. Earth dist.	-281 Jun 25 j 14:57	27° ∡ ¹21'02	4.09955 AU				
direct	-281 Aug 24 j 03:43	22° ∡ ³31'33		conjunction	-275 Jul 07 j 06:36	9° 5 43'11	0°27'18
	-281 Nov 03 j 23:35	0°రె		minimum elong	-275 Jul 07 j 06:34	9° 5 43'10	0°27'19
evening set	-281 Dec 27 j 00:48	11° る 33'29		max. Earth dist.	-275 Jul 07 j 18:11	9° 5 49'33	6.33055 AU
J	J			morning rise	-275 Jul 20 j 18:14	12°9540'52	-
conjunction	-280 Jan 08 j 21:12	14° る 37'08	0°-32'-49		-275 Nov 12 j 17:05	0°Ω	
minimum elong	-280 Jan 08 j 21:12	14° る 37'06		retrograde	-275 Nov 19 j 20:06	0° Ω 04'59	
max. Earth dist.	-280 Jan 08 j 12:45	14°る37'00			-275 Nov 26 j 22:45	30°RS	
morning rise	-280 Jan 21 j 19:49	14 3 32 03	5.51101710	opposition	-274 Jan 18 j 17:52	25° © 07'29	1°04'14
morning 1150	-280 Mar 18 j 08:33	0° ≈		min. Earth dist.	-274 Jan 18 j 17:32	25°907'11	4.37762 AU
	200 Iviai 10 J 00.33	∪ ~~		ann. Barui uist.	217 Juli 10 J 10.4/	11 / الحد ة وس	т. <i>эт104 A</i> U

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -274 in astronomical counting style is the year 275 BCE in historical counting style. 20°504'11 opposition direct -274 Mar 21 j 06:12 -269 Jun 30 i 01:07 2°る22'10 0°-27'-26 -274 Jun 18 j 02:43 $0^{\circ}\Omega$ min. Earth dist. -269 Jun 30 j 13:25 2°る18'10 4.08411 AU -274 Jul 26 j 11:01 -269 Jul 19 j 03:07 30°₽**⋌** evening set 7°**Ω**53'21 -269 Aug 29 j 00:16 27°**∡**¹27'50 direct -274 Aug 08 j 16:45 10°**Ω**45'40 0°57'59 -269 Oct 08 j 03:54 0°궁 conjunction -274 Aug 08 j 16:43 0°57'59 -269 Dec 31 j 21:17 16°**ප**33'48 minimum elong 10°**Ω**45'39 evening set -274 Aug 08 j 02:48 max. Earth dist. 10°**Ω**38′05 6.41100 AU -274 Aug 21 j 19:21 -268 Jan 13 j 18:36 morning rise 13°**Ω**36′27 conjunction 19°**る**38'22 0°-38'-8 $15^{\circ}\Omega$ -268 Jan 13 j 18:34 0°38'09 -274 Aug 28 j 06:48 minimum elong 19°**る**38'21 -268 Jan 13 j 15:18 -274 Dec 02 j 00:23 0° m max. Earth dist. 19°**る**36'23 6.03188 AU retrograde -274 Dec 20 j 04:33 0°My31'28 morning rise -268 Jan 26 j 18:00 22°**♂**44'16 -273 Jan 07 j 09:11 -268 Feb 27 j 09:12 30°**ŖΩ** 0°≈ -273 Feb 18 j 11:42 -268 Jun 05 j 20:31 opposition 25°**Ω**37'19 1°37'32 retrograde 12°**≈**51'58 min. Earth dist. -273 Feb 19 j 04:37 25°**Ω**31'50 4.42921 AU opposition -268 Aug 05 j 04:13 7°≈52'12 -1°-22'-40 direct -273 Apr 21 j 20:48 20°**Ω**34'22 min. Earth dist. -268 Aug 04 j 20:15 7°≈54'51 3.99402 AU -273 Jul 17 j 16:09 0°m direct -268 Oct 02 j 20:29 2°≈58'52 evening set -273 Aug 26 j 21:24 8° m 14'00 -267 Jan 03 j 11:40 15°≈ max. Earth dist. -273 Sep 07 j 07:15 10° Mp 42'47 6.42895 AU evening set -267 Feb 04 j 19:01 22°≈28'25 conjunction -273 Sep 08 j 19:08 11°m)02'21 1°12'01 conjunction -267 Feb 17 j 23:07 25°≈38'34 -1°-6'-18 minimum elong -273 Sep 08 j 19:07 11° Mp 02'20 1°12'01 minimum elong -267 Feb 17 j 23:05 25°≈38'33 1°06'19 morning rise -273 Sep 21 j 14:01 13° m 49'19 max. Earth dist. -267 Feb 19 i 01:44 25°≈54'35 5.97439 AU -273 Dec 29 j 13:10 0∘**⊽** morning rise -267 Mar 03 i 06:27 28°≈50'25 retrograde -272 Jan 19 j 21:22 0°**£**42'27 -267 Mar 08 i 03:14 0°**∀** -267 Jul 13 j 16:13 -272 Feb 10 i 04:22 30°R ™ retrograde 19°**¥**23'56 -272 Mar 20 j 11:57 25° m 50'20 1°44'13 min. Earth dist. -267 Sep 10 j 11:25 14°**)** €29'30 3.97721 AU opposition -272 Mar 21 j 18:31 25° m 40'34 -267 Sep 11 j 14:03 14°**¥**20′31 -1°-47'-4 min Earth dist 4.41359 AU opposition -272 May 22 j 06:02 20° m 48'43 -267 Nov 08 j 12:21 9°\ 26'00 direct direct -272 Aug 15 j 08:37 0∘**⊽** -266 Mar 13 j 23:32 28°\ 58'16 evening set 8°**£**33'27 $0^{\circ}\Upsilon$ -272 Sep 25 j 16:53 -266 Mar 18 j 07:40 evening set -272 Oct 06 j 10:11 max. Earth dist. 10°**♀**55'24 6.38001 AU 2°Υ10'49 -1°-9'-2 -266 Mar 27 j 11:29 conjunction -272 Oct 08 j 09:26 -266 Mar 27 j 11:31 2°Y10'50 1°09'02 conjunction 11°**2**21'34 1°06'17 minimum elong -272 Oct 08 j 09:28 -266 Mar 29 j 11:14 11°**≏**21'35 1°06'18 max. Earth dist. 2°**Y**39'14 5.99865 AU minimum elong -266 Apr 10 j 02:28 -272 Oct 20 j 23:50 14° 208' 45 5°**Y**24'48 morning rise morning rise 25° **Y**36'34 -271 Jan 19 j 21:07 -266 Aug 19 j 07:20 0°M retrograde -271 Feb 19 j 16:15 -266 Oct 17 j 22:10 20°**Y**31'22 -1°-29'-31 retrograde 1°M26'53 opposition -266 Oct 16 j 13:07 -271 Mar 22 j 16:13 30°**₹**Ω min. Earth dist. 20°Υ42'39 4.04030 AU opposition -271 Apr 21 j 13:59 26°**△**35'05 1°22'10 direct -266 Dec 15 j 01:26 15°**Ƴ**34'02 min. Earth dist. -271 Apr 23 j 00:18 26°**₽**24'09 4.33428 AU -265 Mar 30 j 02:48 0° 8 direct -271 Jun 22 j 22:20 21°**♀**35'42 evening set -265 Apr 20 j 04:20 4°**8**46'25 -271 Sep 10 j 18:13 0°M -271 Oct 26 j 18:06 9°M39'22 conjunction -265 May 03 j 22:06 7°**8**57'13 0°-45'-33 evening set max. Earth dist. -271 Nov 06 j 12:18 12°M05'30 6.27654 AU minimum elong -265 May 03 j 22:09 7°**と**57'15 0°45'33 max. Earth dist. -265 May 06 j 01:54 8°**8**27'14 6.09462 AU -271 Nov 08 j 09:00 -265 May 17 j 17:09 11°**8**08'29 conjunction 12°MJ30'53 0°41'29 morning rise -271 Nov 08 j 09:02 -265 Jun 03 j 18:28 15°8 minimum elong 12°M30'55 0°41'29 -271 Nov 19 i 07:38 -265 Sep 07 i 15:21 0°II 15°M -271 Nov 20 j 22:53 -265 Sep 22 i 20:17 0°**I**I22'49 morning rise 15°M22'11 retrograde -265 Oct 07 j 22:22 -270 Feb 04 i 18:43 0°×7 30°R8 -270 Mar 25 j 10:17 3°×28'57 min. Earth dist. -265 Nov 20 j 04:39 25°828'26 4.15819 AU retrograde -270 May 14 i 05:38 30°RML opposition -265 Nov 21 j 09:05 25°**8**18'47 0°-40'-9 28°M35'54 0°34'31 -270 May 25 j 08:53 direct -264 Jan 19 j 10:24 20°**8**18'32 opposition -270 May 26 j 14:07 $\Pi^{\circ}0$ min. Earth dist. 28°M26'34 4.21232 AU -264 Apr 12 j 23:46 -270 Jul 25 j 18:13 23°M39'15 8°**Ⅱ**58'30 direct evening set -264 May 25 j 05:03 -270 Sep 30 j 15:08 0°**∡**¹ 12°**Ⅱ**03'40 0°-6'-56 evening set -270 Nov 27 j 22:07 12°**∡**12'23 conjunction -264 Jun 07 j 22:53 0°06'56 max. Earth dist. -270 Dec 09 j 07:37 14°**∡**′51'50 6.14677 AU minimum elong -264 Jun 07 j 22:54 12°**Ⅱ**03'40 -264 Jun 07 j 15:11 11°**Ⅲ**59'21 behind sun begin -270 Dec 10 j 14:41 15°**х** 10′00 0°03′00 -264 Jun 08 j 06:37 12°**Ⅱ**07'59 conjunction behind sun end -270 Dec 10 j 14:42 15°**∡**10′00 0°03'01 -264 Jun 09 j 09:26 12°**Ⅲ**23′05 6.22504 AU minimum elong max. Earth dist. -270 Dec 10 j 06:43 behind sun begin 15°**₹**05'22 morning rise -264 Jun 21 j 16:20 15°**Ⅲ**08'19 -270 Dec 10 j 22:40 behind sun end 15°**х** 14'38 asc. node -264 Aug 13 j 18:24 26°**Ⅲ**04'11 morning rise -270 Dec 23 j 08:07 18°**₹**08'16 -264 Sep 07 j 19:01 0 \circ \odot desc. node -269 Jan 07 j 07:59 21°**х** 34'51 retrograde -264 Oct 24 j 05:46 3°917'29 -269 Feb 16 j 23:56 0°궁 -264 Dec 09 j 19:31 30°R∏ -269 Apr 30 j 06:51 7°る18'05 -264 Dec 22 j 22:18 28° II 16'40 0° 19'33 retrograde opposition

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -264 in astronomical counting style is the year 265 BCE in historical counting style. 28°**Д**21'38 4.28857 AU min. Earth dist. -264 Dec 22 i 07:29 -258 Jun 25 j 19:16 30°RML 23°**Ⅱ**14'15 28°M12'50 direct -263 Feb 21 i 08:03 -258 Jul 30 j 05:41 direct -263 May 02 j 14:55 0ಂತಾ -258 Sep 02 j 08:54 0°**√** -263 Jun 28 j 11:15 11°522'30 -258 Nov 19 j 07:10 13°**∡**¹49'46 desc node evening set -258 Dec 02 j 08:36 16°**₹**50'02 evening set 14°520'22 0°32'27 -263 Jul 11 j 23:57 -258 Dec 13 j 21:41 conjunction max. Earth dist. 19°**х** 32′07 6.12944 AU -263 Jul 11 j 23:55 minimum elong 14°9520'21 0°32'26 max. Earth dist. -263 Jul 12 j 09:57 -258 Dec 15 j 01:47 19°**∡**⁴48'36 14°9525'51 6.34579 AU conjunction 0°-2'-47 -258 Dec 15 j 01:45 -263 Jul 25 j 10:12 morning rise 17°9516'54 minimum elong 19°**∡**⁴48'35 0°02'48 19°**∡**¹43'55 -263 Sep 29 j 06:34 -258 Dec 14 j 17:45 0° Ω behind sun begin 19°**∡**¹53'15 retrograde -263 Nov 24 j 03:26 4°**Ω**34'57 behind sun end -258 Dec 15 j 09:45 -262 Jan 20 j 08:18 -258 Dec 27 j 19:44 22°**∡**¹47'52 30°Rூ morning rise -262 Jan 23 j 03:09 -257 Jan 28 j 19:33 opposition 29°**©**38'02 1°10'20 0°ಕ min. Earth dist. -262 Jan 23 j 05:14 29°937'21 4.39089 AU retrograde -257 May 05 j 07:35 12°る06'42 direct -262 Mar 25 j 18:46 24°934'50 opposition -257 Jul 04 j 23:21 7°**る**10'21 0°-35'-47 -262 May 27 j 23:04 $0^{\circ}\Omega$ min. Earth dist. -257 Jul 05 j 10:44 7°**る**06'39 4.06669 AU evening set -262 Jul 30 j 23:34 12°**Ω**20'51 direct -257 Sep 02 j 18:24 2°る16'12 max. Earth dist. -262 Aug 12 j 09:56 15°**Ω**02'28 6.42137 AU evening set -256 Jan 05 j 14:53 21°**る**27'17 -262 Aug 12 j 05:24 15°Ω conjunction -256 Jan 18 j 13:00 24°**る**32'55 0°-43'-1 conjunction -262 Aug 13 j 03:53 15°Ω12'13 1°01'03 minimum elong -256 Jan 18 j 12:58 24°る32'53 0°43'01 minimum elong -262 Aug 13 i 03:51 15°**Ω**12'12 1°01'04 max. Earth dist. -256 Jan 18 j 11:52 24°る32'13 6.01594 AU morning rise -262 Aug 26 i 05:22 18°Ω02'06 morning rise -256 Jan 31 j 13:36 27°る40'00 -262 Oct 27 i 05:20 0°m -256 Feb 10 i 10:19 0°≈ -262 Dec 24 j 11:40 retrograde 4° m 53'50 -256 Apr 28 j 05:11 15°**≈** -261 Feb 22 j 19:42 0° 100'04 1°40'04 -256 Jun 11 j 00:09 17°≈55'32 opposition retrograde -261 Feb 22 j 19:55 30°RΩ -256 Jul 25 j 02:49 15°R≈≈ -261 Feb 23 j 15:16 29°**Ω**53'45 4.43619 AU -256 Aug 10 j 06:34 12°≈55'17 -1°-28'-13 min Earth dist opposition -261 Apr 26 j 08:34 -256 Aug 09 j 19:23 12°≈58'59 3.98151 AU direct 24°**Ω**57'14 min. Earth dist. -261 Jun 26 j 11:59 -256 Oct 07 j 17:53 direct 0° m 8°≈01'53 -261 Aug 31 j 04:58 12° m 34'52 -256 Dec 14 j 11:12 evening set 15°≈ max. Earth dist. -261 Sep 11 j 12:45 15° Mp 02'29 -255 Feb 09 j 20:11 27°≈35'37 6.43189 AU evening set -255 Feb 19 j 20:08 0°**)**€ -261 Sep 13 j 01:51 15° m/22'43 1°12'23 conjunction -261 Sep 13 j 01:51 0°\(\pm\)46'39 -1°-8'-16 15° m/22'42 1°12'22 -255 Feb 23 j 01:28 minimum elong conjunction -261 Sep 25 j 19:43 18° Mp 09'12-255 Feb 23 j 01:27 0°**)**46'38 1°08'18 morning rise minimum elong -261 Nov 25 j 19:19 -255 Feb 24 j 07:16 1°**₭**04'37 5.96643 AU 0∘**⊽** max. Earth dist. -255 Mar 08 j 10:00 retrograde -260 Jan 24 j 02:51 5°**2**02'19 morning rise 3°**¥**59′25 opposition -260 Mar 24 j 20:32 0° 210'19 1°42'45 retrograde -255 Jul 18 j 21:37 24°**)** 35'38 min. Earth dist. -260 Mar 26 j 03:13 0°**2**00'31 4.41231 AU opposition -255 Sep 16 j 17:12 19°**)** 31'46 -1°-47'-4 -260 Mar 26 j 04:50 30°R, Mp min. Earth dist. -255 Sep 15 j 13:22 19°**)** 41'12 3.97475 AU direct -260 May 26 j 14:06 25° m 08'58 direct -255 Nov 13 j 14:47 14°**)**€36'53 -260 Jul 25 j 06:08 0∘**ত** -254 Mar 01 j 07:51 $0^{\circ}\Upsilon$ -260 Sep 29 j 22:18 12°**♀**53'26 -254 Mar 19 j 05:01 4°Υ10'11 evening set evening set max. Earth dist. -260 Oct 10 j 14:39 15°**≙**15'06 6.37453 AU -254 Apr 01 j 18:16 7°**Y**′23'09 -1°-7'-5 conjunction -260 Oct 12 j 14:15 -254 Apr 01 j 18:18 7°**Y**23'10 1°07'07 conjunction 15°**2**41'30 1°03'54 minimum elong -260 Oct 12 j 14:17 -254 Apr 03 j 21:37 7°**Υ**53'40 minimum elong 15°**£**41'31 1°03'54 max. Earth dist. 6.00206 AU -260 Oct 25 i 04:13 18°**≏**28'46 -254 Apr 15 j 10:10 10°**Ƴ**37'23 morning rise morning rise -260 Dec 21 i 18:27 0°M -254 Aug 02 i 22:10 0°8 retrograde -259 Feb 24 j 03:22 5°M250'21 retrograde -254 Aug 24 j 09:00 0°**8**45'03 -259 Apr 26 j 01:32 0°ML58'31 1°16'56 -254 Sep 14 j 14:21 30°RY opposition min. Earth dist. -259 Apr 27 j 13:02 0°ML47'13 4.32459 AU opposition -254 Oct 22 j 22:09 25°**Y**'39'48 -1°-23'-58 -259 May 03 j 18:29 -254 Oct 21 j 12:33 25°**Υ**51'16 4.04914 AU 30°R<u>₽</u> min. Earth dist. -259 Jun 27 j 09:21 25°**≏**59'26 20°\bar{Y}42'03 direct direct -254 Dec 20 j 02:28 -259 Aug 19 j 11:44 0° M -253 Mar 11 j 00:32 0°8 -259 Oct 31 j 00:22 14°M04'59 -253 Apr 25 j 09:27 evening set evening set 9°**8**51'57 -259 Nov 04 j 01:32 15°M max. Earth dist. -259 Nov 10 j 17:40 conjunction -253 May 09 j 03:31 13°**8**02'19 0°-40'-35 16°M31'05 6.26336 AU minimum elong -253 May 09 j 03:34 13°**8**02'21 0°40'36 -259 Nov 12 j 15:13 16°M57'01 0°36'52 max. Earth dist. -253 May 11 j 05:42 13°**8**31'18 6.10798 AU conjunction minimum elong -259 Nov 12 j 15:15 16°M57'02 0°36'51 -253 May 17 j 15:36 15°8 morning rise -259 Nov 25 j 05:25 19°M48'58 morning rise -253 May 22 j 22:57 16°**8**13'05 -258 Jan 12 j 10:18 0°⊀ -253 Jul 29 j 15:04 $0^{\circ}\Pi$ retrograde -258 Mar 30 j 02:01 8°**х** 02'37 retrograde -253 Sep 27 j 13:46 5°**Ⅲ**19′08 -258 May 30 j 01:10 3°**х** 09'14 0°26'37 -253 Nov 24 j 23:40 0°**Ц**24'43 4.17445 AU opposition min. Earth dist. min. Earth dist. -258 May 31 j 04:34 3°**✗**00′27 4.19635 AU -253 Nov 26 j 03:21 0°**Д**15'18 0°-31'-41 opposition

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 14 Attention, astronomical year style is used: The year -253 in astronomical counting style is the year 254 BCE in historical counting style. -253 Nov 28 i 00:25 opposition 30°R₩ -247 Apr 30 j 17:36 5°M31'55 1°11'06 direct -252 Jan 24 j 09:04 25°**8**14'35 min. Earth dist. -247 May 02 j 04:00 5°M20'59 4.30795 AU -252 Mar 21 j 02:42 $\Pi^{\circ}0$ -247 Jul 01 j 21:08 0°M33'14 direct -252 May 30 j 05:20 13°**Ⅲ**50′09 -247 Oct 18 j 19:57 15°M₀ evening set 18°M43'00 -247 Nov 04 j 11:41 evening set -252 Jun 12 j 22:51 16°**Ⅱ**54'22 0°00'-58 -247 Nov 15 j 06:58 conjunction max. Earth dist. 21°M10'52 6.24423 AU -252 Jun 12 j 22:52 16°**Ⅲ**54'22 0°00'59 minimum elong behind sun begin -252 Jun 12 j 14:32 16°**Ⅱ**49'43 -247 Nov 17 j 02:39 conjunction 21°M35'52 0°31'48 -252 Jun 13 j 07:13 16°**Ⅲ**59'01 minimum elong -247 Nov 17 j 02:40 behind sun end 21°M35'53 0°31'48 -252 Jun 14 j 07:58 -247 Nov 29 j 17:10 max. Earth dist. 17°**Ⅲ**12'55 6.24287 AU morning rise $24^{\circ}\textrm{ML}28^{\textrm{!}}46$ asc. node -252 Jun 22 j 05:45 18°**Ⅲ**59'04 -247 Dec 24 j 13:55 0°⊀ -252 Jun 26 j 15:25 19°**I**57′52 -246 Apr 04 j 03:15 12°**∡**′51'37 morning rise retrograde -252 Aug 14 j 00:45 -246 Jun 04 j 00:21 7°**∡**¹57'56 0ಂತಾ opposition 0°18'05 retrograde -252 Oct 28 j 18:07 7°958'25 min. Earth dist. -246 Jun 05 j 03:04 7°**∡**¹49'22 4.17586 AU opposition -252 Dec 27 j 11:01 2°958'04 0°27'45 direct -246 Aug 04 j 01:02 3°**х**¹01'56 min. Earth dist. -252 Dec 26 j 22:07 3°902'22 4.30600 AU desc. node -246 Sep 28 j 09:44 7°**х¹**33'42 -251 Jan 20 j 06:52 30°RⅡ evening set -246 Dec 07 j 02:09 21°**х** 44'41 direct -251 Feb 26 j 01:31 27°**II**55'25 -251 Apr 04 j 07:02 0ಂತಾ conjunction -246 Dec 19 j 19:52 24°**∡**⁴44'20 0°-8'-48 evening set -251 Jul 03 j 05:04 15°959'17 minimum elong -246 Dec 19 j 19:52 24°**∡**⁴44'20 0°08'49 behind sun begin -246 Dec 19 j 12:54 24°**∡**¹40'15 conjunction -251 Jul 16 i 16:31 18°956'02 0°37'24 behind sun end -246 Dec 20 i 02:49 24°×48'24 minimum elong -251 Jul 16 i 16:29 18°956'00 0°37'24 max. Earth dist. -246 Dec 18 i 18:15 24°**₹**29'15 6.10952 AU max. Earth dist. -251 Jul 16 j 21:47 18°958'54 6.36101 AU morning rise -245 Jan 01 j 14:45 27°**х** 44′51 -251 Jul 30 j 01:41 morning rise 21°951'27 -245 Jan 11 i 07:10 0°정 -251 Sep 07 j 11:35 $0^{\circ}\Omega$ retrograde -245 May 10 j 13:22 17°る13'30 -251 Nov 28 j 11:28 9°Ω03'34 -245 Jul 10 j 04:46 12°**る**16'41 0°-44'-28 retrograde opposition -250 Jan 27 j 12:25 4°Ω07'04 1°16'03 min. Earth dist. -245 Jul 10 j 12:16 12°る14'15 4.04937 AU opposition min. Earth dist. -250 Jan 27 j 17:18 4°**Ω**05'28 4.40276 AU -245 Sep 07 j 17:37 7°る22'51 direct -250 Mar 05 j 12:36 30°R55 -244 Jan 10 j 16:08 26°る38'57 evening set -250 Mar 30 j 08:05 29°903'45 direct -250 Apr 24 j 10:14 -244 Jan 23 j 15:10 29°る45'35 0°-47'-53 0 $^{\circ}\Omega$ conjunction -250 Jul 27 j 03:10 -244 Jan 23 j 15:08 29°る45'34 0°47'54 15°**Ω** minimum elong -250 Aug 04 j 11:20 -244 Jan 23 j 18:47 16°**Ω**47'01 max. Earth dist. 29°る47'46 6.00292 AU evening set -244 Jan 24 j 15:08 0°≈ -244 Feb 05 j 16:49 -250 Aug 17 j 14:37 19°**Q**37'38 1°03'48 2°≈53'45 conjunction morning rise 19°**Ω**37'37 1°03'48 -250 Aug 17 j 14:35 -244 Mar 31 j 15:29 minimum elong 15°**≈** -244 Jun 16 j 11:14 max. Earth dist. -250 Aug 16 j 18:48 19°**Ω**26'53 6.42872 AU retrograde 23°≈15'36 -244 Aug 15 j 15:22 morning rise -250 Aug 30 j 14:41 22°**Ω**26'41 opposition 18°**≈**14'48 -1°-33'-23 -244 Aug 15 j 01:31 -250 Oct 06 j 07:25 0°m min. Earth dist. 18°≈19'25 3.97450 AU retrograde -250 Dec 28 j 17:49 9° m 16'23 -244 Sep 11 j 09:12 15°R≈ -249 Feb 27 j 04:10 4° m) 22'58 1°42'09 direct -244 Oct 13 j 00:22 13°**≈**21'23 opposition min. Earth dist. -249 Feb 28 j 01:10 4° Mp 16'12 4.43862 AU -244 Nov 13 j 08:49 15°**≈** -249 Apr 09 j 17:45 30°R€ -243 Feb 02 j 17:11 0°**)**€ direct -249 Apr 30 j 18:14 29°**Ω**20'18 -243 Feb 15 j 03:09 2°**¥**56'54 evening set -249 May 21 j 22:58 0°m -249 Sep 04 i 13:36 -243 Feb 28 i 09:42 6°¥08'30 -1°-9'-51 evening set 16° m 57'29 conjunction -249 Sep 15 i 16:56 19° m 22'57 -243 Feb 28 i 09:41 6°¥08'29 1°09'51 max. Earth dist. 6.42899 AU minimum elong -243 Mar 01 j 20:59 6°**)**€29'45 5.96625 AU max. Earth dist. -249 Sep 17 i 09:25 conjunction 19° m 45'03 1°12'22 morning rise -243 Mar 13 i 19:20 9°**H**21'46 -249 Sep 17 i 09:25 19° m 45'02 1°12'22 retrograde -243 Jul 24 j 05:36 29°\ 56'41 minimum elong -249 Sep 30 i 02:36 opposition 22° m/31'22 -243 Sep 21 j 23:44 24°\ 52'30 -1°-46'-12 morning rise -249 Nov 05 j 03:25 0∘**⊽** min. Earth dist. -243 Sep 20 j 18:00 25°¥02'35 3.98183 AU -243 Nov 18 j 20:27 -248 Jan 28 j 13:58 19°**)** 57'21 retrograde 9°**£**26'33 direct -248 Mar 29 j 07:30 $0^{\circ}\Upsilon$ opposition 4°**₽**34'41 1°40'46 -242 Feb 10 j 07:57 4°**2**24'10 4.40421 AU -248 Mar 30 j 16:28 9°**Y**27'57 min. Earth dist. evening set -242 Mar 24 j 13:18 -248 May 13 j 21:32 30°R, Mp -248 May 31 j 01:43 29° m 33'34 -242 Apr 07 j 03:16 12°**Y**40'40 -1°-4'-39 direct conjunction 12°**Υ**40'42 1°04'39 -248 Jun 17 j 05:45 0∘**⊽** minimum elong -242 Apr 07 j 03:19 -248 Oct 04 j 06:28 -242 Apr 09 j 07:03 13°**Y**11'19 6.01548 AU evening set 17°**£**20′05 max. Earth dist. -248 Oct 14 j 21:51 -242 Apr 20 j 20:06 15°**Y**54'38 max. Earth dist. 19°**≏**41'38 6.36179 AU morning rise -242 Jun 27 j 00:15 0°B conjunction -248 Oct 16 j 22:11 20°**₽**08'32 1°01'06 retrograde -242 Aug 29 j 07:30 5°**8**53'56 minimum elong -248 Oct 16 j 22:13 20°**₽**08'33 1°01'05 min. Earth dist. -242 Oct 26 j 11:36 1°**8**00'18 4.06731 AU morning rise -248 Oct 29 j 11:54 22°**£**56'14 opposition -242 Oct 27 j 21:37 0°**8**48'41 -1°-17'-47 -248 Dec 01 j 16:15 0°M -242 Nov 02 j 20:57 30°RY retrograde -247 Feb 28 j 18:13 10°M23'53 direct -242 Dec 25 j 05:04 25°**Y**50′27

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -241 in astronomical counting style is the year 242 BCE in historical counting style. -241 Feb 14 j 23:32 0°8 -236 Nov 14 i 11:58 0°M -241 Apr 30 j 13:23 14°854'43 -235 Mar 01 j 23:04 15°M₀ evening set 15°**8** -241 Apr 30 j 22:37 -235 Mar 05 j 13:39 15°ML01'13 retrograde -235 Mar 09 j 03:55 15°RM 10°ML09'07 1°04'47 -241 May 14 j 07:48 18°**8**04'16 0°-35'-25 opposition -235 May 05 j 11:26 conjunction -241 May 14 j 07:51 18°**8**04'17 min. Earth dist. minimum elong 0°35'26 -235 May 06 j 22:01 9°**™**58'06 4.28728 AU -241 May 16 j 09:10 18°**8**32'38 -235 Jul 06 j 12:18 max. Earth dist. 6.12942 AU direct 5°M10'46 -241 May 28 j 03:01 -235 Sep 30 j 23:50 morning rise 21°**8**13'57 15°M -241 Jul 07 j 14:42 Π °0 evening set -235 Nov 09 j 00:45 23°M25'55 retrograde -241 Oct 02 j 06:07 10°**Ⅱ**09'13 max. Earth dist. -235 Nov 19 j 22:31 25° M55'566.22236 AU opposition -241 Nov 30 j 19:01 5°**Ⅱ**05'48 0°-23'-14 min. Earth dist. -241 Nov 29 j 17:39 -235 Nov 21 j 16:05 5°**Ⅱ**14'24 4.19669 AU conjunction 26° M 19'490°26'28 -240 Jan 29 j 06:02 -235 Nov 21 j 16:06 direct 0°**Ⅲ**04'43 minimum elong 26° M 19'500°26'28 asc. node -240 May 02 j 00:37 11°**Ⅲ**29'35 morning rise -235 Dec 04 j 07:03 29°M13'50 evening set -240 Jun 04 j 02:11 18°**Ⅲ**34'15 -235 Dec 07 j 15:56 0°**∡**¹ retrograde -234 Apr 09 j 04:25 17°**∡**¹46'36 conjunction -240 Jun 17 j 19:02 21°**Ⅲ**37'17 0°04'51 opposition -234 Jun 09 j 01:46 12°**₹**52'32 0°09'15 minimum elong -240 Jun 17 j 19:03 21°**Ⅲ**37'17 0°04'51 min. Earth dist. -234 Jun 10 j 01:10 12°**∡**¹45′01 4.15458 AU 7°**∡**¹57'14 behind sun begin -240 Jun 17 j 10:56 21°**Ⅲ**32'47 desc. node -234 Aug 07 j 02:42 behind sun end -240 Jun 18 j 03:09 21°**Ⅱ**41'47 direct -234 Aug 08 j 20:07 7°**∡**¹56'57 max. Earth dist. -240 Jun 19 j 00:04 21°**II**53'28 6.26401 AU evening set -234 Dec 11 j 22:08 26°**х** 45′16 morning rise -240 Jul 01 i 10:50 24°**Ⅲ**39'32 -240 Jul 26 i 05:11 0ಂತಾ conjunction -234 Dec 24 i 16:25 29°**∡**¹45'59 0°-14'-51 retrograde -240 Nov 02 j 01:34 12°531'09 minimum elong -234 Dec 24 i 16:25 29°×45'58 0°14'52 opposition -240 Dec 31 j 20:22 7°931'17 0°35'29 behind sun begin -234 Dec 24 j 13:02 29°×43'59 min. Earth dist. -240 Dec 31 j 09:45 behind sun end -234 Dec 24 j 19:47 29°**х** 47′58 7°934'50 4 32438 AU -239 Mar 02 j 14:51 2°928'25 max. Earth dist. -234 Dec 23 j 19:03 29°**х** 33′20 6.09076 AU direct evening set -239 Jul 07 j 18:57 20°928'01 -234 Dec 25 j 16:07 0°궁 -233 Jan 06 j 12:10 2°る47'41 morning rise -239 Jul 21 j 05:22 23°523'43 0°41'58 -233 May 15 j 22:49 22°る25'27 conjunction retrograde -239 Jul 21 j 05:19 -233 Jul 15 j 12:28 17°る28'03 0°-52'-55 minimum elong 23°\$23'42 0°41'58 opposition -239 Jul 21 j 06:55 min. Earth dist. -233 Jul 15 j 16:52 17°る26'36 4.03490 AU max. Earth dist. 23°**©**24'34 6.37524 AU -239 Aug 03 j 13:10 -233 Sep 12 j 21:41 26°9518'01 direct 12°**る**34'21 morning rise -239 Aug 20 j 21:01 -232 Jan 07 j 19:13 $0^{\circ}\Omega$ 0°≈ -239 Dec 02 j 17:09 13°**Ω**25'07 -232 Jan 15 j 18:57 retrograde evening set 1°≈54'00 -238 Jan 31 j 18:43 8° Ω 29'09 1°21'09 opposition -238 Feb 01 j 02:33 -232 Jan 28 j 19:01 0°-52'-25 min. Earth dist. 8°**Ω**26'35 4.41199 AU conjunction 5°≈01'27 direct -238 Apr 03 j 17:54 3°**£**25'51 minimum elong -232 Jan 28 j 18:58 5°**≈**01'25 0°52'27 -238 Jul 10 j 10:46 15°**Ω** max. Earth dist. -232 Jan 29 j 04:32 5°**≈**07'11 5.99405 AU evening set -238 Aug 08 j 20:26 21°**Q**07'26 morning rise -232 Feb 10 j 21:39 8°≈10'27 -232 Mar 11 j 08:21 15°≈ -238 Aug 21 j 22:30 23°**Ω**57'26 1°06'08 retrograde -232 Jun 21 j 21:56 28°≈36'13 conjunction -238 Aug 21 j 22:28 23°**Ω**57'25 1°06'08 min. Earth dist. -232 Aug 20 j 07:25 23°≈40'29 3.97251 AU minimum elong max. Earth dist. -238 Aug 20 j 21:34 23°**Ω**43'54 6.43201 AU -232 Aug 21 j 00:17 23°**≈**34'51 opposition -1°-37'-46 -238 Sep 03 j 21:37 26°**Ω**45'57 direct -232 Oct 18 j 05:58 18°**≈**41'19 morning rise -238 Sep 19 i 02:12 0°**₩** 0°m -231 Jan 15 i 09:53 -237 Jan 02 j 00:34 retrograde 13° m 35'10 evening set -231 Feb 20 j 10:25 8° **)** 16'40 -237 Mar 03 j 11:08 opposition 8° m 42'01 1°43'39 -231 Mar 05 i 17:49 min. Earth dist. -237 Mar 04 j 10:48 8° m 34'23 4.43608 AU conjunction 11°**)** 28'28 -1°-10'-49 direct -237 May 05 i 02:30 3° m 39'26 minimum elong -231 Mar 05 i 17:49 11°**¥**28′28 1°10′50 -237 Sep 08 j 20:31 21° m 17'47 max. Earth dist. -231 Mar 07 j 07:21 11°**¥**51′02 5.97080 AU evening set max. Earth dist. -237 Sep 19 j 22:15 23° m 42'40 6.42070 AU morning rise -231 Mar 19 j 04:39 14°**¥**41'59 -231 May 31 j 03:27 $0^{\circ}\Upsilon$ -231 Jul 29 j 09:35 conjunction -237 Sep 21 j 15:47 24° Mp 05'23 1°11'58 retrograde 5°**℃**13'23 -237 Sep 21 j 15:47 min. Earth dist. minimum elong 24° Mp 05'24 1°11'59 -231 Sep 25 j 20:40 0°Υ19'35 3.99247 AU -237 Oct 04 j 08:10 morning rise 26° m 51'45 opposition -231 Sep 27 j 04:17 0°Υ08'51 -1°-44'-28 -237 Oct 18 j 22:31 0∘**⊽** -231 Sep 28 j 06:19 30°**₹**₩ -236 Feb 01 j 23:37 -231 Nov 24 j 01:26 25°**)** 13'17 retrograde 13°**♀**50'52 direct $0^{\circ}\Upsilon$ -236 Apr 02 j 18:28 -230 Jan 18 j 04:08 opposition 8°**£**59'06 1°38'15 min. Earth dist. -236 Apr 04 j 03:46 -230 Mar 29 j 19:49 14°**Y**40'10 8°**£**48'29 4.39079 AU evening set -236 Jun 04 j 10:13 direct 3°**ჲ**58'18 evening set -236 Oct 08 j 15:00 21°**₽**48'26 conjunction -230 Apr 12 j 10:46 17°**Y**52'35 -1°-1'-43 max. Earth dist. -236 Oct 19 j 05:01 24°**₽**09'53 6.34424 AU minimum elong -230 Apr 12 j 10:48 17°**Y**52'36 1°01'44 max. Earth dist. -230 Apr 14 j 16:03 18°**Y**23′59 6.03116 AU conjunction -236 Oct 21 j 06:18 24°**₽**37'26 0°57'57 morning rise -230 Apr 26 j 04:02 21°**Y**′06′02 -236 Oct 21 j 06:20 24°**♀**37'28 -230 Jun 05 j 03:43 0°8 minimum elong 0°57'55 -236 Nov 02 j 20:05 27°**≏**25'50 -230 Sep 03 j 06:24 10°**8**56'27 morning rise retrograde

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -230 in astronomical counting style is the year 231 BCE in historical counting style. min. Earth dist. -230 Oct 31 j 10:33 6°**8**02'26 4.08613 AU conjunction -224 Oct 25 i 15:57 29°**♀**10'17 0°54'24 minimum elong -230 Nov 01 i 19:04 5°**8**51'21 -1°-11'-9 -224 Oct 25 j 15:59 29° **2**10'18 0°54'24 opposition direct -230 Dec 30 j 06:42 0°852'42 -224 Oct 29 j 08:31 0°M -229 Apr 13 j 21:12 15°₩ -224 Nov 07 j 05:33 1°M59'20 morning rise -229 May 05 j 15:18 19°**8**51'28 -223 Jan 12 j 04:47 evening set 15°M -223 Mar 10 j 07:49 19°M42'02 retrograde 23°**8**00'09 -229 May 19 j 09:46 0°-30'-5 conjunction -223 May 08 j 22:32 15°RM 0°57'59 -229 May 19 j 09:48 23°**8**00'11 minimum elong 0°30'05 opposition -223 May 10 j 06:32 14°M49'49 max. Earth dist. -229 May 21 j 09:03 23°**8**27'11 6.14976 AU min. Earth dist. -223 May 11 j 15:31 14°M39'18 4.26922 AU -229 Jun 02 j 04:52 morning rise 26°**8**08'52 direct -223 Jul 11 j 02:58 9°M51'58 -229 Jun 19 j 11:03 $0^{\circ}\Pi$ -223 Sep 09 j 07:31 15°M -229 Oct 06 j 18:20 14°**I**54′13 -223 Nov 13 j 14:36 28°M11'30 retrograde evening set -229 Dec 04 j 08:45 9°**Ц**59'27 4.21672 AU min. Earth dist. -223 Nov 21 j 11:20 0°**∡**¹ opposition -229 Dec 05 j 08:56 9°**Ⅲ**51'16 0°-14'-46 max. Earth dist. -223 Nov 24 j 14:34 0°**∡**¹43′26 6.20420 AU direct -228 Feb 02 j 23:26 4°**Ⅱ**49'53 asc. node -228 Mar 11 j 20:25 7°**Ⅲ**02'15 conjunction -223 Nov 26 j 06:01 1°**∡**¹06'14 0°20'57 evening set -228 Jun 08 j 21:51 23°**Ⅱ**14'32 minimum elong -223 Nov 26 j 06:02 1°×706'15 0°20'56 morning rise -223 Dec 08 j 21:34 4°**∡**°01'15 conjunction -228 Jun 22 j 13:59 26°**Ⅱ**16'30 0°10'30 retrograde -222 Apr 14 j 07:02 22°**∡**¹42'45 minimum elong -228 Jun 22 j 13:59 26°**Ⅱ**16'30 0°10'29 opposition -222 Jun 14 j 03:30 17°**∡**¹48'17 0°00'22 behind sun begin -228 Jun 22 j 07:35 26°**Ⅱ**12'58 min. Earth dist. -222 Jun 15 j 00:33 17°**∡**¹41'30 4.13762 AU behind sun end -228 Jun 22 j 20:22 26°**Ⅲ**20′02 desc. node -222 Jun 16 i 10:51 17°**∡**30′28 max. Earth dist. -228 Jun 23 j 14:35 26°**Ⅲ**30′10 6.28230 AU direct -222 Aug 13 i 18:25 12°**₹**53'02 morning rise -228 Jul 06 i 04:49 29°**Ⅱ**17'35 -222 Dec 09 i 05:39 0°궁 -228 Jul 09 j 10:00 0ಂಣ evening set -222 Dec 16 j 17:40 1°る45'20 -228 Nov 06 i 10:51 17°901'37 retrograde -227 Jan 05 j 05:18 12°902'24 0°42'58 -222 Dec 29 j 12:41 4°**ප**46'57 0°-20'-43 opposition conjunction min. Earth dist. -227 Jan 04 j 22:10 minimum elong -222 Dec 29 j 12:39 4°**ප**46'56 0°20'44 12°9604'47 4 33955 AU -227 Mar 07 j 04:51 max. Earth dist. -222 Dec 28 j 20:28 4°る37'20 6.07674 AU direct 6°959'25 24°955'55 evening set -227 Jul 12 j 08:35 -221 Jan 11 j 09:07 7°る49'35 morning rise -221 May 21 j 05:52 27°る34'22 retrograde -1°00'-48 -227 Jul 25 j 17:55 27°950'45 0°46'17 -221 Jul 20 j 18:09 22°**る**36'27 conjunction opposition -227 Jul 25 j 17:52 27°950'43 0°46'17 -221 Jul 20 j 19:21 22°る36'04 4.02537 AU minimum elong min. Earth dist. -221 Sep 17 j 22:58 -227 Jul 25 j 15:15 max. Earth dist. 27°549'18 6.38606 AU 17°**る**42'56 direct -227 Aug 04 j 15:12 -221 Dec 21 j 06:23 $0^{\circ}\Omega$ 0°≈ -227 Aug 08 j 00:31 0°**Ω**44'07 -220 Jan 20 j 20:09 7°≈04'33 morning rise evening set -227 Oct 24 j 23:46 15°**Ω** -227 Dec 06 j 22:33 retrograde 17°**Ω**47'32 conjunction -220 Feb 02 j 20:55 10°≈12'31 0°-56'-25 -226 Jan 19 j 03:42 15°RΩ minimum elong -220 Feb 02 j 20:52 10°≈12'30 0°56'26 opposition -226 Feb 05 j 01:45 12°**Ω**52'02 1°25'52 max. Earth dist. -220 Feb 03 j 09:37 10°**≈**20′10 5.98962 AU min. Earth dist. -226 Feb 05 j 11:41 12°**Ω**48'47 4.41811 AU morning rise -220 Feb 16 j 00:42 13°≈22'10 direct -226 Apr 08 j 02:58 7°**Ω**48'46 -220 Feb 22 j 21:12 15°**≈** -226 Jun 21 j 09:03 15°**Ω** -220 May 07 j 17:43 0°**)**€ -226 Aug 13 j 05:56 25°**Ω**29'38 -220 Jun 27 j 02:39 3°**)** 49′57 evening set retrograde max. Earth dist. -226 Aug 25 j 03:45 28°**Ω**04'22 6.43293 AU -220 Aug 17 j 04:33 30°R≈ min. Earth dist. -220 Aug 25 j 09:32 28°≈54'42 3.97384 AU -226 Aug 26 i 06:58 28°**Ω**19'09 1°08'07 -220 Aug 26 j 05:31 conjunction opposition 28°≈48'00 -1°-41'-10 -226 Aug 26 i 06:56 28°**Ω**19'09 -220 Oct 23 i 09:00 minimum elong 1°08'07 direct 23°≈54'15 -226 Sep 03 i 00:40 0°m -220 Dec 25 i 03:37 0°**∀** -226 Sep 08 i 04:55 1° m 07'12 evening set -219 Feb 25 j 14:10 13°**)**€28'26 morning rise -225 Jan 06 i 08:10 17° m 56'49 retrograde -225 Mar 07 i 19:35 13° m 04'02 1°44'37 conjunction -219 Mar 10 j 22:46 16°**¥**40'24 -1°-11'-11 opposition 4.43191 AU min. Earth dist. -225 Mar 08 j 21:13 12° m 55'48 minimum elong -219 Mar 10 j 22:46 16°**¥**40'24 1°11'12 -225 May 09 j 11:41 -219 Mar 12 j 16:13 17°**¥**05'17 5.97765 AU direct 8° m 01'44 max. Earth dist. morning rise -219 Mar 24 j 10:24 19°**)** 53'58 evening set -225 Sep 13 j 04:48 25° m 41'36 -225 Sep 24 j 02:37 $0^{\circ}\Upsilon$ max. Earth dist. 28° m 04'47 6.41161 AU -219 May 08 j 09:42 10°**Y**20′59 retrograde -219 Aug 03 j 11:57 -225 Sep 25 j 23:13 28° m/29'16 1°11'10 min. Earth dist. -219 Sep 30 j 21:27 5°Υ26'53 4.00401 AU conjunction -225 Sep 25 j 23:14 28° m/29'16 1°11'09 -219 Oct 02 j 04:50 5°**Y**16′12 -1°-41'-56 minimum elong opposition -225 Oct 02 j 20:37 0∘**⊽** -219 Nov 29 j 04:01 0°Y20'14 direct -225 Oct 08 j 15:10 -218 Apr 03 j 22:38 19°**Ƴ**43'17 morning rise 1°**≏**15'48 evening set retrograde -224 Feb 06 j 12:53 18° 2 19'11 opposition -224 Apr 07 j 07:14 13°**≏**27'30 1°35'08 conjunction -218 Apr 17 j 14:16 22°**Y**55′19 0°-58'-25 min. Earth dist. -224 Apr 08 j 17:29 13°**≙**16'35 4.37748 AU minimum elong -218 Apr 17 j 14:19 22°**Y**55'20 0°58'26 direct -224 Jun 08 j 21:45 8°**£**27′02 max. Earth dist. -218 Apr 19 j 19:21 23°**Y**26'27 6.04619 AU -224 Oct 13 j 00:40 26°**♀**20'40 morning rise -218 May 01 j 08:11 26°**Y**08'18 evening set max. Earth dist. -224 Oct 23 j 16:20 28°**2**43'34 6.32797 AU -218 May 18 j 04:27 0°8

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 17 Attention, astronomical year style is used: The year -218 in astronomical counting style is the year 219 BCE in historical counting style. -218 Aug 16 j 07:23 15°8 evening set -212 Oct 17 i 09:49 0°M51'17 -218 Sep 07 j 22:59 15°850'11 max. Earth dist. -212 Oct 28 j 00:35 3°M14'14 6.31364 AU retrograde -218 Sep 30 j 09:51 15°R₩ min. Earth dist. -218 Nov 05 j 04:03 -212 Oct 30 j 00:46 3°M41'22 0°50'32 10°**8**56'17 4.10310 AU conjunction -212 Oct 30 j 00:48 -218 Nov 06 j 12:25 3°M41'23 10°**8**45'15 -1°-4'-15 0°50'32 opposition minimum elong -217 Jan 04 j 02:06 5°**8**46'11 -212 Nov 11 j 14:32 direct morning rise 6°M31'03 -217 Mar 26 j 10:48 15°₩ -212 Dec 21 j 11:57 15°M₀ 24°M20'29 -217 May 10 j 14:02 24°840'27 evening set retrograde -211 Mar 15 j 02:14 opposition -211 May 15 j 01:10 19°**M**27′58 0°50'48 conjunction -217 May 24 j 08:30 27°**8**48'21 0°-24'-42 min. Earth dist. -211 May 16 j 08:58 19°M17'49 4.25296 AU 27°**8**48'22 -211 Jun 27 j 21:52 minimum elong -217 May 24 j 08:31 0°24'42 15°RM -217 May 26 j 03:57 28°**8**13'06 -211 Jul 15 j 18:37 14°M30'27 max. Earth dist. 6.16735 AU direct -217 Jun 03 j 00:02 -211 Aug 02 j 15:15 $0^{\circ}\Pi$ 15°M -217 Jun 07 j 03:24 morning rise 0°**I**I56'11 -211 Nov 05 j 09:31 0°**√** retrograde -217 Oct 11 j 06:19 19°**Ⅲ**32'56 evening set -211 Nov 18 j 03:19 2°**х** 53'43 opposition -217 Dec 09 j 20:24 14°**Ⅲ**30′26 0°-6'-29 max. Earth dist. -211 Nov 29 j 07:15 5°**х** 28′27 6.18737 AU min. Earth dist. -217 Dec 08 j 23:21 14°**Ⅲ**37'33 4.23321 AU asc. node -216 Jan 21 j 17:55 9°**I**I56'44 conjunction -211 Nov 30 j 19:11 5°**∡**¹49'17 0°15'19 direct -216 Feb 07 j 15:58 9°**I**I28'45 minimum elong -211 Nov 30 j 19:12 5°**х** 49′18 0°15'19 evening set -216 Jun 13 j 15:04 27°**II**49'42 behind sun begin -211 Nov 30 j 16:23 5°**∡**¹47'40 -216 Jun 23 j 10:56 0ಂತಾ behind sun end -211 Nov 30 j 22:01 5°**х** 50′55 morning rise -211 Dec 13 j 11:04 8°**х** 45′12 conjunction -216 Jun 27 i 06:40 0°950'49 0°15'56 retrograde -210 Apr 19 i 07:58 27°**х** 35′01 minimum elong -216 Jun 27 i 06:38 0°950'49 0°15'57 desc. node -210 Apr 26 i 06:07 27°**х** 30′31 max. Earth dist. -216 Jun 28 i 04:24 1°9502'52 6.29657 AU opposition -210 Jun 19 i 03:50 22°**∡**¹40′10 0°-8'-29 -216 Jul 10 i 20:31 3°950'54 min. Earth dist. -210 Jun 19 j 22:50 22°**х** 34′03 4.12141 AU morning rise -216 Nov 10 j 16:42 21°928'53 direct -210 Aug 18 j 14:11 17°**∡**¹45'15 retrograde -215 Jan 09 j 13:05 16°930'11 0°50'02 -210 Nov 22 j 04:35 0°궁 opposition -215 Jan 09 j 07:27 4.35079 AU -210 Dec 21 j 12:12 6°**る**41'37 min. Earth dist. 16°932'03 evening set -215 Mar 11 j 15:24 11°9527'07 direct 29°521'37 -209 Jan 03 j 07:42 -215 Jul 16 j 21:12 9°る44'06 0°-26'-25 conjunction evening set -209 Jan 03 j 07:40 -215 Jul 19 j 20:05 minimum elong 9°る44'05 0°26'27 0 $^{\circ}\Omega$ -209 Jan 02 j 17:47 max. Earth dist. 9°**る**35'50 6.06239 AU -215 Jul 30 j 05:21 -209 Jan 16 j 05:10 2°Ω15'41 0°50'16 12°る47'47 conjunction morning rise -215 Jul 30 j 05:19 -209 Apr 14 j 13:54 2°Ω15'39 0°50'16 minimum elong 0°≈ -215 Jul 29 j 22:29 -209 May 26 j 11:00 2°**Ω**11'56 6.39351 AU 2°≈40'06 max. Earth dist. retrograde -215 Aug 12 j 10:49 5°**Ω**08'17 -209 Jul 07 j 16:01 30°Ŗる morning rise -215 Sep 30 j 11:33 15°**Ω** opposition -209 Jul 25 j 22:37 27°る41'36 -1°-8'-14 -209 Jul 25 j 20:26 retrograde -215 Dec 11 j 05:32 22°**Ω**09'03 min. Earth dist. 27°る42'19 4.01431 AU opposition -214 Feb 09 j 08:53 17°**Ω**14'01 1°30'01 direct -209 Sep 22 j 22:42 22°る48'09 min. Earth dist. -214 Feb 09 j 21:45 17°**Ω**09'49 4.42157 AU -209 Dec 01 j 06:32 0°≈ -214 Feb 27 j 03:39 15°RΩ -208 Jan 25 j 20:38 12°≈12'42 evening set direct -214 Apr 12 j 13:35 12°**Ω**10′50 -208 Feb 06 j 10:57 15°**≈** -214 May 27 j 04:35 15°**Ω** -214 Aug 17 j 15:16 29°**Ω**51'25 conjunction -208 Feb 07 j 22:32 15°≈21'27 -1°00'00 evening set -208 Feb 07 i 22:29 -214 Aug 18 j 07:12 0°m minimum elong 15°≈21'25 1°00'01 -208 Feb 08 i 16:36 max. Earth dist. -214 Aug 29 j 09:09 2° m 24'10 6.43204 AU max. Earth dist. 15°≈32'20 5.98287 AU -208 Feb 21 i 03:13 18°**≈**31'49 morning rise -214 Aug 30 j 15:20 2° m 40'35 1°09'41 -208 Apr 12 j 15:48 0°**∀** conjunction minimum elong -214 Aug 30 i 15:19 2° m 40'34 1°09'41 retrograde -208 Jul 02 j 10:12 9° **H** 02'44 opposition morning rise -214 Sep 12 i 12:19 5° m 28'16 -208 Aug 31 j 10:29 4°**₩**00'19 -1°-43'-50 retrograde -213 Jan 10 j 15:44 22° m 18'42 min. Earth dist. -208 Aug 30 j 13:20 4°**)**€07'25 3.97228 AU -213 Mar 12 j 04:33 17° m) 26'06 1°44'57 -208 Oct 05 j 13:46 30°R≈ opposition -213 Mar 13 j 07:00 -208 Oct 28 j 12:39 29°≈06'23 min. Earth dist. 17° **m**) 17'37 4.42704 AU direct 0°**∀** direct -213 May 13 j 20:41 12° m 23'59 -208 Nov 20 j 09:57 0°₽05'10 -213 Sep 17 j 12:49 evening set -207 Mar 02 j 18:52 18°**)** 40′53 evening set -213 Sep 17 j 03:20 0∘**⊽** max. Earth dist. -213 Sep 28 j 10:30 2°**£**28'36 6.40310 AU -207 Mar 16 j 04:29 21°\ 53'11 -1°-11'-1 conjunction minimum elong -207 Mar 16 j 04:29 21°\ 53'12 1°11'02 -213 Sep 30 j 06:40 2°**£**52'54 1°09'55 -207 Mar 18 j 00:01 22°**升**19'15 5.98118 AU conjunction max. Earth dist. -213 Sep 30 j 06:41 1°09'54 -207 Mar 29 j 17:20 25°**₭**07'05 minimum elong 2°**£**52'55 morning rise -213 Oct 12 j 21:58 $0^{\circ}\Upsilon$ morning rise 5°**₽**39'33 -207 Apr 19 j 16:24 retrograde -212 Feb 11 j 00:49 22°**£**46'54 retrograde -207 Aug 08 j 13:48 15°**Y**30′50 opposition -212 Apr 11 j 20:23 17°**£**55'13 1°31'25 min. Earth dist. -207 Oct 05 j 20:58 10°**Y**37'07 4.01237 AU min. Earth dist. -212 Apr 13 j 06:57 17°**£**44'12 4.36569 AU opposition -207 Oct 07 j 05:54 10°**Y**25′55 -1°-38'-39 -212 Jun 13 j 09:41 12°**♀**55'07 -207 Dec 04 j 04:44 5°Y29'33 direct direct -212 Oct 13 j 13:38 -206 Apr 09 j 03:24 24° Y50'180°M evening set

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 18 Attention, astronomical year style is used: The year -206 in astronomical counting style is the year 207 BCE in historical counting style. -206 Apr 22 j 19:46 28°**Y**'02'08 0°-54'-38 min. Earth dist. -200 Apr 17 j 17:28 22°**♀**06'36 4.35875 AU conjunction minimum elong -206 Apr 22 i 19:49 28°**Y**′02′10 0°54'40 direct -200 Jun 17 j 18:56 17°**£**17'43 max. Earth dist. -206 Apr 24 j 23:44 28°**Y**32'32 6.05854 AU -200 Sep 27 j 13:21 0°M -206 May 01 j 05:32 0°8 -200 Oct 21 j 15:47 5°M14'56 evening set -200 Nov 01 j 07:57 -206 May 06 j 14:15 1°814'48 max. Earth dist. 7°**IL**39'00 morning rise 6.30325 AU 15°**8** -206 Jul 11 j 20:38 8°M05'22 -206 Sep 12 j 19:04 20°**8**49'16 -200 Nov 03 j 06:39 retrograde conjunction 0°46'29 15°**8**55'00 0°46'29 -206 Nov 10 j 01:14 -200 Nov 03 j 06:42 min. Earth dist. 4.11788 AU minimum elong 8° M05'23-206 Nov 11 j 07:58 -200 Nov 15 j 20:17 opposition 15°**8**44'31 0°-56'-47 morning rise 10°M55'27 -206 Nov 16 j 19:03 15°R₩ -200 Dec 04 j 07:13 15°M -205 Jan 09 j 01:29 direct 10°**8**45'04 retrograde -199 Mar 19 j 16:45 $28^{\circ}\textrm{ML}50^{\prime}25$ -205 Mar 02 j 20:37 15°8 -199 May 19 j 16:02 opposition 23° M $_{5}7'42$ 0°43'32 -205 May 15 j 15:06 29°**8**35'36 -199 May 20 j 23:51 evening set min. Earth dist. 23°M47'33 4.23945 AU -199 Jul 20 j 07:07 -205 May 17 j 10:19 $\Pi^{\circ}0$ direct 19°ML00'29 -199 Oct 19 j 19:19 0°⊀ conjunction -205 May 29 j 09:41 2°II42'50 0°-19'-1 evening set -199 Nov 22 j 12:17 7°**х¹**26'45 minimum elong -205 May 29 j 09:42 2°**Ⅲ**42'51 0°19'02 max. Earth dist. -199 Dec 03 j 16:22 10°**₹**°02′10 6.17183 AU max. Earth dist. -205 May 31 j 04:17 3°**耳**07′01 6.18360 AU 5°**Ⅱ**49'48 morning rise -205 Jun 12 j 04:09 conjunction -199 Dec 05 j 04:19 10°**∡**°23′04 0°09'49 retrograde -205 Oct 15 j 19:14 24°**Ⅱ**18'21 minimum elong -199 Dec 05 j 04:19 10°**х** 23′04 0°09'49 asc. node -205 Nov 30 j 21:36 21°**II**03'27 behind sun begin -199 Dec 04 j 21:45 10°**∡**19'16 opposition -205 Dec 14 j 10:21 19°**Ⅱ**16'24 0°02'03 behind sun end -199 Dec 05 i 10:54 10°**∡**126'52 min. Earth dist. -205 Dec 13 j 14:11 19°**Ⅲ**23'12 4.24958 AU morning rise -199 Dec 17 j 20:54 13°**х** 19′53 direct -204 Feb 12 i 09:12 14°**I**14'34 desc. node -198 Mar 08 i 05:53 29°**х** 01′09 -204 Jun 06 i 19:56 0ಂತಾ -198 Mar 16 i 05:24 0°궁 -204 Jun 18 j 11:06 2°931'48 -198 Apr 24 j 04:25 2°る17'51 evening set retrograde -198 Jun 02 j 12:24 30°R*x*⁷ -204 Jul 02 j 01:41 5°931'54 0°21'27 -198 Jun 23 j 23:56 27° x 22'32 0°-16'-59 conjunction opposition -204 Jul 02 j 01:40 5°931'54 0°21'28 min. Earth dist. -198 Jun 24 j 16:38 27°**∡**17′08 4.10487 AU minimum elong -204 Jul 02 j 18:54 -198 Aug 23 j 05:25 max. Earth dist. 5°9541'25 direct 22°**∡**¹27'47 6.31206 AU -204 Jul 15 j 14:39 8°930'56 -198 Nov 03 j 11:02 0°궁 morning rise -198 Dec 26 j 03:08 -204 Nov 15 j 02:30 11°**る**28'45 retrograde 26°902'23 evening set 21°904'15 0°56'58 -203 Jan 13 j 23:16 opposition -203 Jan 13 j 20:29 -197 Jan 07 j 23:32 14°る32'15 0°-31'-44 min. Earth dist. 21°905'11 4.36461 AU conjunction -203 Mar 16 j 06:53 -197 Jan 07 j 23:30 16°9501'08 14°る32'14 0°31'46 direct minimum elong -197 Jan 07 j 13:42 14°る26'23 -203 Jul 03 j 05:26 0° Ω max. Earth dist. 6.04647 AU -197 Jan 20 j 21:44 -203 Jul 21 j 11:19 3°**Ω**52'30 17°**る**36'59 evening set morning rise -197 Mar 18 j 21:41 0°≈ conjunction -203 Aug 03 j 18:26 6°**Ω**45'38 0°54'03 retrograde -197 May 31 j 14:42 7°≈37'29 minimum elong -203 Aug 03 j 18:23 6°Ω45'36 0°54'03 opposition -197 Jul 30 j 23:21 2°≈38'29 -1°-14'-56 max. Earth dist. -203 Aug 03 j 09:50 6°**Ω**40'57 6.40485 AU min. Earth dist. -197 Jul 30 j 19:58 2°≈39'36 4.00060 AU -203 Aug 16 j 22:29 9°**Ω**37'14 -197 Aug 21 j 03:44 30°Ŗる morning rise -203 Sep 11 j 12:10 15°**Ω** direct -197 Sep 27 j 19:57 27°る45'04 retrograde -203 Dec 15 j 10:52 26°**Ω**34'02 -197 Nov 03 j 22:35 0°**≈** -202 Feb 13 j 17:08 21°**Ω**39'24 1°33'42 -196 Jan 21 j 10:00 15°**≈** opposition -202 Feb 14 i 06:48 21°**Ω**34'58 4.43005 AU -196 Jan 30 j 19:02 min. Earth dist. evening set 17°≈14'01 -202 Apr 16 j 23:57 16°**Ω**36'22 direct -202 Aug 01 j 22:22 -196 Feb 12 i 21:55 20°≈23'42 -1°-3'-1 0°m conjunction -196 Feb 12 j 21:53 evening set -202 Aug 22 j 00:31 4° m 14'40 minimum elong 20°≈23'41 1°03'01 -196 Feb 13 i 18:21 max. Earth dist. 20°≈36'02 5.97258 AU conjunction -202 Sep 03 i 23:21 7° m 03'09 1°10'53 morning rise -196 Feb 26 j 03:58 23°≈35'07 minimum elong -202 Sep 03 i 23:20 7° mb 03'08 1°10'53 -196 Mar 24 i 16:52 0°**₩** -202 Sep 02 j 15:04 max. Earth dist. 6° m 45'36 6.43703 AU retrograde -196 Jul 07 j 14:10 14°**₩** 10'16 9°**升**07'26 -1°-45'-39 -202 Sep 16 j 19:18 9° m 50'14 -196 Sep 05 j 12:52 morning rise opposition 26° m 39'39 -201 Jan 14 j 22:57 -196 Sep 04 j 12:53 9°**¥**15'30 3.96689 AU retrograde min. Earth dist. -201 Mar 16 j 13:08 opposition 21° m/47'16 1°44'41 direct -196 Nov 02 j 11:40 4° **)** 13'16 -201 Mar 17 j 17:42 min. Earth dist. 21°M)38'07 4.42819 AU evening set -195 Mar 07 j 22:39 23°**)**49'51 direct -201 May 18 j 07:52 16° Mp 45'23-195 Mar 21 j 09:29 -201 Sep 01 j 01:38 0∘**⊽** conjunction 27°**)** 02'42 -1°-10'-16 -201 Sep 21 j 19:02 4°**£**25'39 minimum elong -195 Mar 21 j 09:30 27°\circ 02'43 1°10'16 evening set -201 Oct 02 j 14:07 6°**₽**47'50 max. Earth dist. -195 Mar 23 j 06:58 27°**₭**29'55 5.98117 AU max. Earth dist. 6.40019 AU $0^{\circ}\Upsilon$ -195 Apr 02 j 18:38 -201 Oct 04 j 12:11 0° **Y**17'05 conjunction 7°**£**13'12 1°08'19 morning rise -195 Apr 03 j 23:27 minimum elong -201 Oct 04 j 12:12 7°**£**13'13 1°08'19 retrograde -195 Aug 13 j 15:40 20°**Y**38′52 morning rise -201 Oct 17 j 02:58 9°**Ω**59'45 min. Earth dist. -195 Oct 10 j 21:15 15°**Y**45'01 4.01760 AU -200 Feb 15 j 09:14 27°**♀**09'21 -195 Oct 12 j 06:19 15°**Ƴ**33'44 -1°-34'-37 retrograde opposition -200 Apr 16 j 06:59 22°**2**17'35 1°27'15 -195 Dec 09 j 06:34 10°**Y**36′56 opposition direct

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 19 Attention, astronomical year style is used: The year -194 in astronomical counting style is the year 195 BCE in historical counting style. 29°**Y**56′27 evening set -194 Apr 14 j 08:19 evening set -189 Sep 26 i 02:47 8°**₽**50'03 6.39061 AU -194 Apr 14 j 14:25 max. Earth dist. -189 Oct 06 j 20:20 11°**£**11'47 0°8 -194 Apr 28 j 01:35 3°**8**08'12 0°-50'-26 -189 Oct 08 j 19:20 1°06'20 conjunction conjunction 11°**△**37'45 -194 Apr 28 j 01:38 0°50'26 -189 Oct 08 j 19:21 3°**8**08'14 11°**△**37'46 1°06'20 minimum elong minimum elong -194 Apr 30 j 07:18 14°**≏**24'32 3°**8**39'32 -189 Oct 21 j 09:43 max. Earth dist. 6.06876 AU morning rise -194 May 11 j 20:28 6°**8**20'35 -188 Jan 17 j 23:58 morning rise 0° M 1°M38'56 -194 Jun 20 j 02:53 15°₩ -188 Feb 19 j 23:24 retrograde -194 Sep 17 j 15:03 25°**8**47'53 -188 Mar 24 j 03:38 retrograde 30°**₹**Ω -194 Nov 14 j 20:42 min. Earth dist. 20°**8**53'48 4.13181 AU opposition -188 Apr 20 j 21:02 26°**₽**47'11 1°22'31 -194 Nov 16 j 03:20 opposition 20°**8**43'22 0°-48'-54 min. Earth dist. -188 Apr 22 j 08:50 26°**♀**35'49 4.34467 AU -193 Jan 13 j 23:18 15°843'32 -188 Jun 22 j 08:03 direct direct 21°**₽**47'40 -193 Apr 30 j 07:22 -188 Sep 09 j 03:05 $0^{\circ}\Pi$ $0^{\circ}M$ evening set -193 May 20 j 16:53 4°**Ⅱ**30′26 evening set -188 Oct 26 j 01:23 9°M48'23 max. Earth dist. -188 Nov 05 j 16:51 12°M12'40 6.28576 AU -193 Jun 03 j 11:09 conjunction 7°**Ⅲ**36'52 0°-13'-12 minimum elong -193 Jun 03 j 11:10 7°**Ⅱ**36'53 0°13'13 conjunction -188 Nov 07 j 16:13 12°M39'31 0°42'02 behind sun begin -193 Jun 03 j 06:29 7°**Ⅲ**34'14 minimum elong -188 Nov 07 j 16:15 12°M39'32 0°42'01 behind sun end -193 Jun 03 j 15:52 7°**Ⅲ**39'31 -188 Nov 18 j 00:14 15°M max. Earth dist. -193 Jun 05 j 02:21 7°**Ⅱ**59'01 6.19998 AU morning rise -188 Nov 20 j 06:08 15°M30'25 morning rise -193 Jun 17 j 05:22 10°**Ⅱ**42'56 -187 Feb 03 j 07:44 0°**√** asc. node -193 Oct 09 i 15:03 28°II51'31 retrograde -187 Mar 24 j 12:50 3°**х** 33′42 retrograde -193 Oct 20 j 08:28 29°**Ⅱ**02'57 -187 May 14 j 00:56 30°RML min. Earth dist. -193 Dec 18 i 06:11 24°**I**107'28 4.26664 AU opposition -187 May 24 j 12:22 28°M40'42 0°35'39 opposition -193 Dec 19 i 00:17 24°**Ⅱ**01'23 0°10'34 min. Earth dist. -187 May 25 j 18:05 28°M31'12 4.21965 AU direct -192 Feb 17 j 04:28 18°**Ⅲ**59'11 direct -187 Jul 24 j 22:15 23°ML43'50 -192 May 20 j 02:02 0ಂತಾ -187 Sep 29 j 10:57 0°**√** -192 Jun 23 j 06:33 7°9512'10 -187 Nov 27 j 03:14 12°**₹**15'23 evening set evening set max. Earth dist. -187 Dec 08 j 11:36 14°**∡** 53'57 6.15156 AU -192 Jul 06 j 20:25 10°9511'14 0°26'50 conjunction -192 Jul 06 j 20:23 -187 Dec 09 j 19:47 15°**∡** 12'45 0°03'56 minimum elong 10°911'13 0°26'50 conjunction -192 Jul 07 j 11:48 10°9519'42 -187 Dec 09 j 19:48 minimum elong 0°03'57 max. Earth dist. 6.32829 AU 15°**∡** 12'46 -192 Jul 20 j 08:04 13°509'04 -187 Dec 09 j 11:54 morning rise behind sun begin 15°**₹**'08'10 -192 Oct 31 j 17:21 -187 Dec 10 j 03:42 behind sun end 15°**х** 17′22 $0^{\circ}\Omega$ -192 Nov 19 j 10:28 -187 Dec 22 j 12:55 0°**Ω**33'44 18°**∡**10'43 retrograde morning rise -192 Dec 08 j 02:02 -186 Jan 15 j 13:15 23°**х** 37'35 30°R∽ desc. node -191 Jan 18 j 09:05 -186 Feb 16 j 00:44 opposition 25°\$36'06 1°03'33 0°궁 -186 Apr 29 j 10:21 min. Earth dist. -191 Jan 18 j 07:51 25°536'30 4.37851 AU retrograde 7°る18'38 direct -191 Mar 20 j 20:16 20°932'55 opposition -186 Jun 29 j 03:14 2°る22'55 0°-25'-55 -191 Jun 15 j 05:01 $0^{\circ}\Omega$ min. Earth dist. -186 Jun 29 j 18:19 2°る18'02 4.08577 AU evening set -191 Jul 26 j 00:47 8°**Ω**21'02 -186 Jul 18 j 07:49 30°₹**҂**7 direct -186 Aug 28 j 04:04 27°**∡**¹28'29 conjunction -191 Aug 08 j 06:30 11°Ω13'13 0°57'32 -186 Oct 07 j 05:24 0°8 -191 Aug 08 j 06:27 11°**Ω**13'12 0°57'32 -186 Dec 31 j 01:30 16°る34'52 minimum elong evening set max. Earth dist. -191 Aug 07 j 17:01 11°**Ω**05'54 6.41492 AU -191 Aug 21 i 09:26 14°**Ω**03'56 -185 Jan 12 j 22:38 19°る39'26 0°-37'-11 morning rise conjunction -191 Aug 25 i 17:40 -185 Jan 12 j 22:36 15°€ minimum elong 19°**る**39'25 0°37'12 -191 Nov 25 i 00:36 -185 Jan 12 j 15:53 0°m max. Earth dist. 19°**る**35'24 6.03031 AU -191 Dec 19 i 18:35 -185 Jan 25 i 22:02 retrograde 0° m 57'28 morning rise 22°る45'23 -190 Jan 13 i 10:37 30°RΩ -185 Feb 26 i 10:36 0°≈ -190 Feb 18 i 01:25 26°Ω03'13 1°36'54 retrograde -185 Jun 05 j 23:06 12°≈53'48 opposition min. Earth dist. -190 Feb 18 j 18:19 25°**Ω**57'45 4.43564 AU opposition -185 Aug 05 j 07:13 -1°-21'-29 7°≈54'17 direct -190 Apr 21 j 12:04 21°Ω00'14 min. Earth dist. -185 Aug 04 j 23:39 7°≈56'47 3.98950 AU -190 Jul 15 i 00:06 -185 Oct 02 j 22:38 0°m direct 3°≈00'58 -190 Aug 26 j 09:36 evening set 8° m 37'24 -184 Jan 03 j 09:50 15°**≈** max. Earth dist. -190 Sep 06 j 21:20 11° Mp 06'52 6.43743 AU evening set -184 Feb 05 j 00:15 22°≈33'03 -190 Sep 08 j 07:35 11° **m** 25'29 -184 Feb 18 j 04:15 25°≈43'28 -1°-5'-43 conjunction 1°11'43 conjunction -184 Feb 18 j 04:13 -190 Sep 08 j 07:34 1°11'43 minimum elong 1°05'45 minimum elong 11°m/25'29 25°≈43'26 -190 Sep 21 j 02:27 14° Mp 12'10 -184 Feb 19 j 05:27 5.96765 AU morning rise max. Earth dist. 25°≈58'41 -190 Dec 24 j 08:23 0∘**⊽** -184 Mar 02 j 11:24 28°≈55'35 morning rise -189 Jan 19 j 06:00 retrograde 1°**≏**02'22 -184 Mar 06 j 23:20 0°**∀** -184 Jul 12 j 23:37 -189 Feb 14 j 06:13 30°R, Mp retrograde 19°**)** 32′17 opposition -189 Mar 20 j 22:38 26° m 10'10 1°43'55 opposition -184 Sep 10 j 20:28 14°**¥**28'57 -1°-46'-41 min. Earth dist. -189 Mar 22 j 03:51 26° Mp 00′49 4.42350 AU min. Earth dist. -184 Sep 09 j 18:40 14°**)** 37'40 3.96904 AU direct -189 May 22 j 16:38 21°m/08'31 -184 Nov 07 j 19:03 9°**)** 34'31 direct -189 Aug 14 j 04:12 0∘**ত** -183 Mar 13 j 06:53 29°**₭**09'54 evening set

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 20 Attention, astronomical year style is used: The year -183 in astronomical counting style is the year 184 BCE in historical counting style.

Attention, astronom	ical year style is used: T	he year -183 is	n astronomical cou	inting style is the year	184 BCE in historical co	unting style.	
	-183 Mar 16 j 19:13	0° Υ			-178 Jun 23 j 16:09	0° ™	
				evening set	-178 Aug 30 j 16:24	12° m 55'07	
conjunction	-183 Mar 26 j 18:52	2° Y '22'50	-1°-8'-58	max. Earth dist.	-178 Sep 10 j 23:04	15° mp 22'08	6.43299 AU
minimum elong	-183 Mar 26 j 18:54	2° Y '22'51	1°08'59				
max. Earth dist.	-183 Mar 28 j 20:34	2° Y ′52'28	5.99028 AU	conjunction	-178 Sep 12 j 13:20	15° m 42'59	1°12'09
morning rise	-183 Apr 09 j 09:42	5° Ƴ 37'10		minimum elong	-178 Sep 12 j 13:19	15° m 42'59	1°12'08
retrograde	-183 Aug 18 j 18:14	25° Y '52'29		morning rise	-178 Sep 25 j 07:33	18° m) 29'32	
min. Earth dist.	-183 Oct 15 j 22:22	20° Ƴ 58'48	4.03275 AU	Č	-178 Nov 23 j 04:15	0∘ <u>⊽</u>	
opposition	-183 Oct 17 j 08:14	20° Ƴ 47'15	-1°-29'-48	retrograde	-177 Jan 23 j 15:31	5° ≏ 22'16	
direct	-183 Dec 14 j 09:57	15° Ƴ 50′02		opposition	-177 Mar 25 j 07:40	0° Ω 30'15	1°42'38
	-182 Mar 28 j 04:31	0°B		min. Earth dist.	-177 Mar 26 j 15:25	0° Ω 20'06	4.41331 AU
evening set	-182 Apr 19 j 14:03	5° 8 04'31			-177 Mar 29 j 06:26	30°R, M)	
C	1 3			direct	-177 May 27 j 02:15	25° m/28'48	
conjunction	-182 May 03 j 07:36	8° 8 15'33	0°-45'-52		-177 Jul 23 j 11:44	0∘ <u>ଫ</u>	
minimum elong	-182 May 03 j 07:38	8° 8 15'34	0°45'53	evening set	-177 Sep 30 j 09:53	13° ≏ 13'14	
max. Earth dist.	-182 May 05 j 11:29	8° 8 45'39	6.08838 AU	max. Earth dist.	-177 Oct 11 j 02:15	15° ≏ 34'50	6.37542 AU
morning rise	-182 May 17 j 02:52	11° 8 27'08			J		
	-182 Jun 01 j 18:00	15° 8		conjunction	-177 Oct 13 j 02:09	16° ≏ 01'23	1°03'59
	-182 Sep 01 j 04:54	$\Pi^{\circ}0$		minimum elong	-177 Oct 13 j 02:11	16° ≏ 01'24	1°03'59
retrograde	-182 Sep 22 j 07:43	0° Ⅱ 43'49		morning rise	-177 Oct 25 j 16:14	18° ≏ 48'41	
C	-182 Oct 13 j 07:24	30° ₹ 8		Z .	-177 Dec 20 j 07:14	0° M ₊	
opposition	-182 Nov 20 j 21:21	25° 8 39'32	0°-40'-48	retrograde	-176 Feb 24 j 13:11	6° ™ 09'45	
min. Earth dist.	-182 Nov 19 j 15:48	25° 8 49'35	4.15364 AU	opposition	-176 Apr 25 j 11:47	1°ML17'56	1°17'19
direct	-181 Jan 18 j 22:18	20° 8 39'14		min. Earth dist.	-176 Apr 26 j 22:35	1°M06'51	4.32549 AU
	-181 Apr 11 j 15:31	0° I I			-176 May 05 j 19:30	30° ₽ Ω	
evening set	-181 May 25 j 15:49	9° Ⅱ 19'49		direct	-176 Jun 26 j 18:29	26° ≏ 18'47	
8	, . ,				-176 Aug 16 j 15:01	0° M ₊	
conjunction	-181 Jun 08 j 09:50	12° Ⅱ 25'07	0°-7'-27	evening set	-176 Oct 30 j 12:22	14° M 24'37	
minimum elong	-181 Jun 08 j 09:51	12° Ⅱ 25'07			-176 Nov 02 j 02:57	15° ™	
behind sun begin	-181 Jun 08 j 02:16	12° Ⅱ 20'53		max. Earth dist.	-176 Nov 10 j 05:48		6.26425 AU
behind sun end	-181 Jun 08 j 17:25	12° ∏ 29'22			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		0.20.20
max. Earth dist.	-181 Jun 09 j 22:59	12° Ⅱ 46'01	6.22233 AU	conjunction	-176 Nov 12 j 03:16	17° ™ 16'40	0°37'16
morning rise	-181 Jun 22 j 03:11	15° Ⅱ 29'51		minimum elong	-176 Nov 12 j 03:18	17° ™ 16'41	0°37'16
asc. node	-181 Aug 19 j 12:26	27° Ⅱ 21'27		morning rise	-176 Nov 24 j 17:29	20°M08'35	
	-181 Sep 05 j 13:08	0.ಪ			-175 Jan 10 j 04:43	0° ⊼ 7	
retrograde	-181 Oct 24 j 18:59	3° 5 39'53		retrograde	-175 Mar 29 j 13:50	8° ∡ ¹21'34	
	-181 Dec 13 j 06:12	30°RⅡ		opposition	-175 May 29 j 11:11	3° х 28′19	0°27'25
opposition	-181 Dec 23 j 11:15	28° I I38'51	0°18'43	min. Earth dist.	-175 May 30 j 16:02	3° ₹ 19'05	4.19719 AU
min. Earth dist.	-181 Dec 22 j 19:34		4.28736 AU		-175 Jun 28 j 14:29	30°RM	,,.,.,
direct	-180 Feb 21 j 20:27	23° II 36'26		direct	-175 Jul 29 j 17:12	28°M31'52	
	-180 Apr 29 j 22:33	0ಂತಾ			-175 Aug 29 j 13:26	0° ∡ ¹	
evening set	-180 Jun 27 j 22:20	11°9544'11		desc. node	-175 Nov 24 j 11:12	15° ∡ ¹26'48	
8				evening set	-175 Dec 01 j 20:33	17° ∡ ¹09'23	
conjunction	-180 Jul 11 j 11:01	14° 5 642'03	0°31'52	max. Earth dist.	-175 Dec 13 j 08:16	19° ∡ 50'40	6.13027 AU
minimum elong	-180 Jul 11 j 10:59	14° 5 642'02	0°31'51		J		
max. Earth dist.	-180 Jul 11 j 20:53	14° 5 647'28	6.34561 AU	conjunction	-175 Dec 14 j 13:39	20° √ 07'53	0°-2'-10
morning rise	-180 Jul 24 j 21:37	17° 5 38'42		minimum elong	-175 Dec 14 j 13:39	20° √ 07'53	0°02'12
C	-180 Sep 26 j 09:14	$0^{\circ}\Omega$		behind sun begin	-175 Dec 14 j 05:37	20° ∡ °03′12	
retrograde	-180 Nov 23 j 15:57	4° Ω 56'51		behind sun end	-175 Dec 14 j 21:40	20° ∡ 12'34	
opposition	-179 Jan 22 j 15:41	29° © 59'41	1°09'32	morning rise	-175 Dec 27 j 07:37	23° ∡ °07'07	
11	-179 Jan 22 j 14:44	30° ℝ ∽		Č	-174 Jan 26 j 19:26	აი	
min. Earth dist.	-179 Jan 22 j 17:42	29° © 59'01	4.39139 AU	retrograde	-174 May 04 j 16:21	12° る 25'08	
direct	-179 Mar 25 j 07:06	24°956'21		opposition	-174 Jul 04 j 09:07	7° る 28'56	0°-34'-49
	-179 May 25 j 02:52	$0^{\circ}\Omega$		min. Earth dist.	-174 Jul 04 j 19:50	7° る 25'27	4.06770 AU
evening set	-179 Jul 30 j 10:35	12° Ω 41'47		direct	-174 Sep 02 j 03:35	2°る34'50	
Č	-179 Aug 10 j 02:07	15° Ω		evening set	-173 Jan 05 j 02:26	21° ප් 46'00	
				ū	•		
conjunction	-179 Aug 12 j 15:19	15° Ω 33'13	1°00'34	conjunction	-173 Jan 18 j 00:23	24° る 51'31	0°-42'-24
minimum elong	-179 Aug 12 j 15:16	15° Ω 33'12	1°00'35	minimum elong	-173 Jan 18 j 00:21	24° ප් 51'30	0°42'24
max. Earth dist.	-179 Aug 11 j 23:12	15° Ω 24'28	6.42232 AU	max. Earth dist.	-173 Jan 17 j 23:05	24° る 50'44	6.01711 AU
morning rise	-179 Aug 25 j 16:51	18° Ω 23'07		morning rise	-173 Jan 31 j 00:44	27° る 58'28	
	-179 Oct 24 j 11:40	0° ™			-173 Feb 08 j 14:05	0° ≈	
retrograde	-179 Dec 23 j 22:37	5° m 14'35			-173 Apr 26 j 08:20	15° ≈	
opposition	-178 Feb 22 j 07:21	0° m/20′44	1°39'32	retrograde	-173 Jun 11 j 10:15	18° ≈ 13'13	
min. Earth dist.	-178 Feb 23 j 02:06	0° m 14'40	4.43729 AU		-173 Jul 27 j 22:36	15° R ≈	
	-178 Feb 24 j 23:31	30°R Ω		opposition	-173 Aug 10 j 16:23	13° ≈ 13'05	-1°-27'-25
direct	-178 Apr 25 j 19:12	25° Ω 17'52		min. Earth dist.	-173 Aug 10 j 05:58	13° ≈ 16'32	3.98264 AU
	-				-		

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -173 in astronomical counting style is the year 174 BCE in historical counting style. 8°≈19'44 direct -173 Oct 08 i 05:33 -167 Mar 09 i 03:54 30°R55 -173 Dec 13 i 07:16 15°**≈** -167 Mar 29 j 17:44 29°921'06 direct -172 Feb 10 j 06:41 27°≈53'10 -167 Apr 19 j 12:18 $0^{\circ}\Omega$ evening set -167 Jul 25 j 03:15 -172 Feb 19 j 01:34 0°**∀** 15°**Ω** -167 Aug 03 j 20:54 17°**Ω**04'48 evening set -172 Feb 23 j 11:50 1°\(\mathbf{1}\)04'04 -1°-7'-54 conjunction max. Earth dist. -167 Aug 16 j 03:23 19°**ん**44'12 6.42672 AU -172 Feb 23 j 11:48 1°\mathcal{H}04'03 1°07'55 minimum elong -172 Feb 24 j 18:24 1°**)** 22′30 -167 Aug 17 j 00:22 19°**Ω**55'35 1°03'19 max. Earth dist. 5.96758 AU conjunction -172 Mar 07 j 20:02 morning rise 4°**升**16'40 minimum elong -167 Aug 17 j 00:20 19°**£**55'34 1°03'19 retrograde -172 Jul 18 j 07:35 24°**¥**52'16 morning rise -167 Aug 30 j 00:55 22°**Ω**44'53 min. Earth dist. -172 Sep 14 j 23:17 19°**¥**57'58 3.97593 AU -167 Oct 04 j 03:22 0° m -172 Sep 16 j 03:09 -167 Dec 28 j 05:44 9°m/35'23 opposition 19°**)** 48'32 -1°-46'-47 retrograde -172 Nov 13 j 00:25 direct 14°**¥**53′50 opposition -166 Feb 26 j 14:46 4° Mp 41'52 1°41'39 -171 Feb 27 j 12:40 $0^{\circ}\Upsilon$ min. Earth dist. -166 Feb 27 j 12:04 4° m 35'00 4.43647 AU evening set -171 Mar 18 j 14:24 4°Y26'28 -166 Apr 14 j 23:45 30°RΩ direct -166 Apr 30 j 04:13 29°**Ω**39'06 conjunction -171 Apr 01 j 03:10 7°**Y**39'13 -1°-7'-7 -166 May 15 j 11:03 0° m minimum elong -171 Apr 01 j 03:12 7°**Y**39'15 1°07'08 evening set -166 Sep 04 j 00:22 17° m 17'09 6.00301 AU max. Earth dist. -171 Apr 03 j 05:13 8°Y08'57 max. Earth dist. -166 Sep 15 j 05:24 19° m 43'31 6.42696 AU morning rise -171 Apr 14 j 18:58 10°**Y**53'20 -171 Jul 29 j 17:27 0°8 conjunction -166 Sep 16 j 20:38 20° m/04'56 1°12'11 retrograde -171 Aug 23 j 17:17 1°800'59 minimum elong -166 Sep 16 j 20:38 20° m 04'56 1°12'11 -171 Sep 17 i 13:09 30°RY morning rise -166 Sep 29 i 13:55 22° m 51'24 min. Earth dist. -171 Oct 20 i 21:55 26°Υ07'24 4.04981 AU -166 Nov 02 j 21:07 0∘**⊽** opposition -171 Oct 22 j 08:09 25°**Y**55'43 -1°-24'-20 retrograde -165 Jan 28 j 00:46 9°**₽**47'09 direct -171 Dec 19 j 12:27 20°**Y**58′04 opposition -165 Mar 29 j 18:20 4°**£**55'17 1°40'44 -170 Mar 09 j 01:42 0° 8 min. Earth dist. -165 Mar 31 j 02:28 4°**2**45'02 4.40260 AU -170 Apr 24 j 17:48 10°807'20 -165 May 23 j 10:15 evening set 30°R M -165 May 31 j 10:54 direct 29° m 54'10 -170 May 08 j 11:51 13°**8**17'39 0°-41'-2 -165 Jun 08 j 12:43 0∘**⊽** conjunction 13°**8**17'41 0°41'03 -170 May 08 j 11:53 evening set -165 Oct 04 j 18:31 17°**£**41'30 minimum elong -170 May 10 j 15:11 13°**8**47'18 6.10840 AU 20°**♀**02'48 max. Earth dist. max. Earth dist. -165 Oct 15 j 09:19 6.36084 AU -170 May 15 j 21:12 15°8 -170 May 22 j 07:00 -165 Oct 17 j 10:17 16°**8**28'18 20° 20'04 1°01'14 morning rise conjunction -170 Jul 27 j 09:41 $0^{\circ}\Pi$ -165 Oct 17 j 10:19 20°**♀**30'05 1°01'13 minimum elong -170 Sep 27 j 00:56 -165 Oct 30 j 00:18 5°**Ⅱ**34'50 23°**♀**17'53 retrograde morning rise 0°**II**40'15 4.17445 AU -170 Nov 24 j 10:15 -165 Nov 30 j 09:29 min. Earth dist. 0° M opposition -170 Nov 25 j 13:32 0°**Ц**30'59 0°-32'-33 retrograde -164 Feb 29 j 07:24 10° ML45'32-170 Nov 29 j 08:57 30°R₩ opposition -164 Apr 30 j 04:42 5°M53'38 1°11'32 direct -169 Jan 23 j 19:26 25°**8**30'23 min. Earth dist. -164 May 01 j 15:47 5°M42'27 4.30794 AU -169 Mar 19 j 18:17 $\Pi^{\circ}0$ direct -164 Jul 01 j 09:11 0°M54'52 -169 May 30 j 13:31 14°**I**105′32 -164 Oct 16 j 16:04 15°M₁ evening set evening set -164 Nov 04 j 00:17 19°ML05'01 -169 Jun 13 j 07:00 17°**耳**09'47 0°-1'-41 max. Earth dist. -164 Nov 14 j 20:01 21° M $_{\circ}33'04$ 6.24544 AU conjunction -169 Jun 13 j 06:59 17°**耳**09'46 0°01'41 minimum elong -169 Jun 12 j 22:38 17°**I**05'07 -164 Nov 16 i 15:26 behind sun begin conjunction 21°M57'54 0°32'14 -169 Jun 13 j 15:20 17°**Ⅱ**14'26 -164 Nov 16 i 15:28 behind sun end minimum elong 21°M57'55 0°32'14 -169 Jun 14 j 16:06 17°**Ⅱ**28'19 -164 Nov 29 i 05:56 max. Earth dist. 6.24229 AU morning rise 24°M50'45 -169 Jun 26 i 23:43 -164 Dec 22 i 09:59 morning rise 20°**Ⅲ**13'22 0°**∡**¹ -169 Jun 29 j 08:36 asc. node 20°**Ⅱ**44'55 retrograde -163 Apr 03 i 12:35 13°**∡** 12'25 -169 Aug 12 j 23:25 0ಂತಾ opposition -163 Jun 03 j 10:46 8°**₹**18'49 0°18'55 retrograde -169 Oct 29 j 03:27 8°9514'43 min. Earth dist. -163 Jun 04 j 12:26 8° ₹10'35 4.17869 AU -169 Dec 27 j 21:15 3°514'13 0°26'43 direct -163 Aug 03 j 10:56 3°**х** 22′49 opposition -169 Dec 27 j 07:44 -163 Oct 03 j 18:36 8°**∡** 50'21 min. Earth dist. 3°518'45 4.30499 AU desc. node 22°**∡***04'46 -168 Jan 23 j 07:17 30°RⅡ evening set -163 Dec 06 j 14:17 -168 Feb 26 j 10:19 direct 28°**Ⅱ**11'36 max. Earth dist. -163 Dec 18 j 06:30 24°**x**⁷49'16 6.11381 AU -168 Apr 01 j 01:12 0°00 -168 Jul 02 j 13:29 16°515'30 -163 Dec 19 j 07:49 25°**₹**'04'11 0°-8'-9 evening set conjunction -163 Dec 19 j 07:48 25°**х** 04′10 0°08'10 minimum elong -168 Jul 16 j 01:13 19°5612'23 0°36'42 -163 Dec 19 j 00:39 24°**₹**′59'59 conjunction behind sun begin -168 Jul 16 j 01:10 -163 Dec 19 j 14:57 25°**х** 08′22 minimum elong 19°**©**12'22 0°36'42 behind sun end -168 Jul 16 j 07:29 max. Earth dist. 19°915'50 6.35969 AU morning rise -162 Jan 01 j 02:30 28°**х** 04′25 morning rise -168 Jul 29 j 10:31 22°907'56 -162 Jan 09 j 09:16 0°ಕ -168 Sep 05 j 09:44 0 $^{\circ}$ Ω retrograde -162 May 09 j 22:41 17°る30'37 retrograde -168 Nov 27 j 22:46 9°**£**20′57 opposition -162 Jul 09 j 14:07 12°**る**33'51 0°-43'-23 -167 Jan 26 j 22:49 4°**Ω**24'23 1°15'10 min. Earth dist. -162 Jul 09 j 22:08 12°**る**31'14 4.05476 AU opposition min. Earth dist. -167 Jan 27 j 03:40 4°Ω22'48 4.40110 AU -162 Sep 07 j 05:25 7°**る**39'55 direct

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 22

•	ical year style is used: T		•	/ /			22
evening set	-161 Jan 10 j 02:00		a ustronomicur cot	evening set	-156 Jul 07 j 03:03	20°942'35	
evening sec	101 3411 10 3 02.00	20 03337		evening sec	150 341 07 3 05.05	20 0 .233	
conjunction	-161 Jan 23 j 00:52	0°≈00'12	0°-47'-12	conjunction	-156 Jul 20 j 13:48	23°938'40	0°41'14
minimum elong	-161 Jan 23 j 00:50	0°≈00'11	0°47'13	minimum elong	-156 Jul 20 j 13:45	23°538'38	0°41'14
max. Earth dist.	-161 Jan 23 j 04:54	0°≈02'37	6.00890 AU	max. Earth dist.	-156 Jul 20 j 16:11	23° © 39'58	6.36961 AU
max. Lartii dist.	-161 Jan 23 j 00:32	0°≈	0.00070 AC	morning rise	-156 Aug 02 j 21:59	26° © 33'21	0.50701 AC
morning rise	-161 Feb 05 j 02:09	3°≈07'56		morning risc	-156 Aug 19 j 00:10	0°Ω	
morning rise	-	15° ≈		retrograde	-156 Dec 02 j 03:49	13° Ω 42'41	
retrograde	-161 Mar 30 j 21:25	13 ≈ 23°≈26'39		•	-155 Jan 31 j 05:24	8°Ω46'35	1920117
Č	-161 Jun 16 j 17:56		10 221 27	opposition min. Earth dist.	-155 Jan 31 j 12:05	8°Ω44'24	4.40711 AU
opposition	-161 Aug 15 j 22:41	18°≈25'57			-155 Apr 03 j 02:27	3°Ω43'19	4.40/11 AU
min. Earth dist.	-161 Aug 15 j 09:13	18°≈30'25	3.98037 AU	direct			
1' '	-161 Sep 13 j 15:25	15°R≈		. ,	-155 Jul 08 j 07:19	15° Ω	
direct	-161 Oct 13 j 08:20	13°≈32'31		evening set	-155 Aug 08 j 06:43	21°Ω26'22	C 4204C ATT
	-161 Nov 11 j 21:06	15° ≈		max. Earth dist.	-155 Aug 20 j 10:03	24° 3′2 04'06	6.42846 AU
	-160 Feb 02 j 08:52	0°) {			155 1 21:00 10	242 01 (122	1005120
evening set	-160 Feb 15 j 10:17	3°) €05'43		conjunction	-155 Aug 21 j 09:10	24°Ω16'39	
		>4		minimum elong	-155 Aug 21 j 09:08	24°Ω16'38	1°05'38
conjunction	-160 Feb 28 j 16:15	6° 米 16′51		morning rise	-155 Sep 03 j 08:31	27° Ω 05′26	
minimum elong	-160 Feb 28 j 16:14	6° ∺ 16'51	1°09'27		-155 Sep 16 j 23:49	0° m)	
max. Earth dist.	-160 Mar 01 j 01:04	6°) 36'37	5.97103 AU	retrograde	-154 Jan 01 j 12:44	13° m 55'47	
morning rise	-160 Mar 13 j 01:38	9°) 29'44		opposition	-154 Mar 02 j 22:36	9° m 02'38	1°43'10
	-160 Jul 18 j 02:02	0 ° Υ		min. Earth dist.	-154 Mar 03 j 21:39	8° m 55'13	4.43404 AU
retrograde	-160 Jul 23 j 09:23	0° Y ′02'49		direct	-154 May 04 j 13:08	4° Mp 00'07	
	-160 Jul 28 j 16:57	30°₽)		evening set	-154 Sep 08 j 08:15	21° m 39'05	
min. Earth dist.	-160 Sep 19 j 23:58	25°) €08'44	3.98483 AU	max. Earth dist.	-154 Sep 19 j 09:34	24° Mp 03'46	6.42041 AU
opposition	-160 Sep 21 j 05:41	24°) 58′40	-1°-46'00				
direct	-160 Nov 18 j 03:04	20°) €03'34		conjunction	-154 Sep 21 j 03:37	24° Mp 26'48	1°11'47
	-159 Feb 09 j 02:55	0 ° Υ		minimum elong	-154 Sep 21 j 03:38	24° Mp 26'48	1°11'47
evening set	-159 Mar 23 j 18:02	9° Ƴ 32'57		morning rise	-154 Oct 03 j 20:24	27° m) 13'18	
					-154 Oct 16 j 18:02	0∘ ত	
conjunction	-159 Apr 06 j 07:51	12° Ƴ 45'30	-1°-4'-48	retrograde	-153 Feb 01 j 12:17	14° ≙ 12'15	
minimum elong	-159 Apr 06 j 07:53	12° Ƴ 45'31	1°04'49	opposition	-153 Apr 03 j 05:49	9° ჲ 20'27	1°38'13
max. Earth dist.	-159 Apr 08 j 11:46	13° Ƴ 16′14	6.01649 AU	min. Earth dist.	-153 Apr 04 j 14:51	9° ഫ 09'55	4.39235 AU
morning rise	-159 Apr 20 j 00:11	15° Ƴ 59'15		direct	-153 Jun 04 j 21:44	4° ≙ 19'37	
	-159 Jun 25 j 17:25	0°B		evening set	-153 Oct 09 j 02:49	22° ₽ 09'20	
retrograde	-159 Aug 28 j 14:41	5° 8 59'04		max. Earth dist.	-153 Oct 19 j 18:57	24° ₽ 31'48	6.34770 AU
min. Earth dist.	-159 Oct 25 j 19:08	1° 8 05'04	4.06623 AU		•		
opposition	-159 Oct 27 j 03:56	0° 8 53'52	-1°-18'-27	conjunction	-153 Oct 21 j 18:26	24° ≏ 58'19	0°58'06
• •	-159 Nov 02 j 18:40	30° ŖƳ		minimum elong	-153 Oct 21 j 18:28	24° ≙ 58'20	0°58'05
direct	-159 Dec 24 j 11:56	25° Y ′55'47		morning rise	-153 Nov 03 j 08:08	27° ₽ 46'36	
	-158 Feb 13 j 14:26	0°8		· ·	-153 Nov 13 j 10:16	0° M	
evening set	-158 Apr 29 j 17:57	15° 8 00'18			-152 Feb 19 j 05:08	15° M ₊	
C	-158 Apr 29 j 17:26	15° 8		retrograde	-152 Mar 04 j 22:33	15°M20'15	
	1 3			C	-152 Mar 19 j 16:32	15°RM	
conjunction	-158 May 13 j 12:13	18° 8 09'56	0°-36'-4	opposition	-152 May 04 j 21:12	10°M28'13	1°05'17
minimum elong	-158 May 13 j 12:15	18° 8 09'57	0°36'05	min. Earth dist.	-152 May 06 j 07:05	10° M ₁7'25	4.29253 AU
max. Earth dist.	-158 May 15 j 13:24	18° 8 38'12	6.12630 AU	direct	-152 Jul 05 j 21:58	5°M29'52	2,203 110
morning rise	-158 May 27 j 07:30	21° 8 19'48	***************************************		-152 Sep 28 j 21:25	15°M	
morning rise	-158 Jul 06 j 06:30	0°II		evening set	-152 Nov 08 j 11:44	23°M.43'32	
retrograde	-158 Oct 01 j 12:32	10° Ⅱ 17'13		max. Earth dist.	-152 Nov 19 j 08:42	26°M12'54	6.22889 AU
min. Earth dist.	-158 Nov 29 j 00:17	5° Ⅱ 22'39	4.19215 AU	max. Dartii dist.	1321101 17 1 00:12	20 1101231	0.22009 110
opposition	-158 Nov 30 j 02:29	5° П 13'46	0°-24'-23	conjunction	-152 Nov 21 j 02:52	26°M37′08	0°27'00
direct	-157 Jan 28 j 11:26	0° П 12'49	0 24 23	minimum elong	-152 Nov 21 j 02:53	26°M37'09	0°27'00
asc. node	-157 May 10 j 07:27	13° Ⅱ 18'08		morning rise	-152 Dec 03 j 17:51	29°M30'51	0 27 00
	-157 Jun 04 j 08:12	18° Ⅱ 43'46		morning risc	-152 Dec 05 j 20:58	0° √	
evening set	-13/Juli 04 J 06.12	16 Д43 40		retrograde	-151 Apr 08 j 12:09	18° ∡ ¹00'37	
agniumation	157 Jun. 19; 01:12	21° ∏ 47'07	0°04'02	-			0°10'19
conjunction minimum elong	-157 Jun 18 j 01:12 -157 Jun 18 j 01:10	21° II 47'07 21° II 47'06		opposition	-151 Jun 08 j 09:22	13°×706'38	
	-		0°04'02	min. Earth dist.	-151 Jun 09 j 09:29	12° ∡ 58'53	4.16180 AU
behind sun begin	-157 Jun 17 j 16:58	21° ∏ 42'32		direct	-151 Aug 08 j 06:17	8° ₹ 10'56	
behind sun end	-157 Jun 18 j 09:23	21° Π 51'40	6 25057 ATT	desc. node	-151 Aug 13 j 14:13	8°×713'40	
max. Earth dist.	-157 Jun 19 j 06:11	22° I I03'18	6.25857 AU	evening set	-151 Dec 11 j 06:39	26° \$\bar{7}57'00	C 00012 11
morning rise	-157 Jul 01 j 17:09	24° ∏ 49'41		max. Earth dist.	-151 Dec 23 j 03:36	29° ∡ ⁴44'48	6.09812 AU
	-157 Jul 25 j 15:15	0°95			151 D 041 00 55	200 35-12	00.141.1
retrograde	-157 Nov 02 j 12:35	12°543'58	0024120	conjunction	-151 Dec 24 j 00:52	29° ₹ 57'21	0°-14'-1
opposition	-156 Jan 01 j 05:46	7°5544'04	0°34'20	minimum elong	-151 Dec 24 j 00:51	29° 🗷 57'21	0°14'02
min. Earth dist.	-157 Dec 31 j 19:32	7°547'29	4.31859 AU	behind sun begin	-151 Dec 23 j 20:39	29° х 54'52	
direct	-156 Mar 01 j 23:34	2° © 41'19		behind sun end	-151 Dec 24 j 05:04	29° ⋌ 59'49	

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 23

	omena or Jupiter II				152 BCE in historical co		23
Attention, astronom	-151 Dec 24 j 05:21	ne year -131 n 0° ठ	n astronomicai cou	min. Earth dist.	-144 Jan 05 j 07:15		4.33297 AU
morning rise	-150 Jan 05 j 20:15	2°る58'36		direct	-144 Mar 06 j 13:25	7°\$17'46	4.33297 AU
retrograde	-150 May 15 j 03:24	2 03836 22° る 32'51		evening set	-144 Mai 00 j 13.23	7 9 1 7 4 6 25° 9 15' 55	
opposition	-150 Jul 14 j 17:33	22 3 32 31	0°-51'-35	evening set	-144 Jul 11 J 16.55	23 301333	
min. Earth dist.	-150 Jul 14 j 17:33	17 る 33 37	4.04175 AU	conjunction	-144 Jul 25 j 04:27	28° © 11'01	0°45'38
direct	,	17 3 33 33	4.041/3 AU	minimum elong	-144 Jul 25 j 04:24	28°511'00	0°45'39
direct	-150 Sep 12 j 03:58 -149 Jan 06 j 15:45	0°≈		max. Earth dist.	-144 Jul 25 j 03:10	28°5010'19	6.38185 AU
evening set	-149 Jan 15 j 00:51	0 ∞ 1°≈59'20		max. Earth dist.	-144 Aug 02 j 12:16	0°Ω	0.36163 AU
evening set	-149 Jan 15 J 00.51	1 ≈39 20		morning rise	-144 Aug 02 j 12:10	1° Ω 04'43	
agniumation	-149 Jan 28 j 00:26	5% 006121	0°-51'-37	morning rise	-144 Aug 07 j 11:20	1 δ 004 43	
conjunction minimum elong	-149 Jan 28 j 00:23	5°≈06'21 5°≈06'20	0°51'39	ratra ara da	-144 Oct 21 j 13.00 -144 Dec 06 j 11:53	13 δί 18° Ω 09'26	
max. Earth dist.	-149 Jan 28 j 07:15	5°≈10'27	5.99954 AU	retrograde	-144 Dec 06 j 11.33 -143 Jan 21 j 17:07	18 8 09 20 15°RΩ	
morning rise	-149 Feb 10 j 02:51	3 ≈1027 8°≈14'58	3.99934 AU	opposition	-143 Feb 04 j 14:08	13° Ω 13'49	1925/04
morning risc	-149 Mar 11 j 06:11	5 ∞14 36 15°≈		min. Earth dist.	-143 Feb 04 j 23:27		4.41674 AU
retrograde	-149 Jun 21 j 23:20	28°≈38'20		direct	-143 Pc6 04 j 25:27 -143 Apr 07 j 15:34	8°Ω10'37	4.410/4 AU
min. Earth dist.	-149 Aug 20 j 11:10	23°≈42'33	3.97581 AU	direct	-143 Jun 18 j 17:02	15° Ω	
opposition	-149 Aug 20 j 11:10	23°≈37'04	-1°-36'-48	evening set	-143 Aug 12 j 17:24	25° Ω 51'18	
direct	-149 Oct 18 j 10:07	18°≈43'30	-1 -30 -48	evening set	-143 Aug 12 j 17.24	23 6631 18	
direct	-148 Jan 15 j 11:00	0°)		conjunction	-143 Aug 25 j 18:43	28° Ω 40'52	1907!40
evening set	-148 Feb 20 j 13:54	8° ∺ 17'53		minimum elong	-143 Aug 25 j 18:41	28° Ω40'51	1°07'40
evening set	-146 Feb 20 j 15.54	6 X 1733		max. Earth dist.	-143 Aug 24 j 17:04	$28^{\circ}\Omega 26'57$	6.43477 AU
agniumation	149 Mar 04 : 21:00	11° ¥ 29'32	10 10! 20	max. Earth dist.	-143 Aug 31 j 20:32	0°m)	0.43477 AU
conjunction minimum elong	-148 Mar 04 j 21:09 -148 Mar 04 j 21:08	11 X 2932 11° X 29'32		morning rise	<i>c</i> ,	0 ly 1°Mo28'57	
max. Earth dist.	-148 Mar 06 j 10:21	11 X 29 32 11° X 51'54	5.97170 AU	Č	-143 Sep 07 j 16:56 -142 Jan 05 j 18:48		
morning rise	-148 Mar 18 j 07:27	14°) 42'49	3.9/1/0 AU	retrograde opposition	-142 Mar 07 j 07:00	18° Mp 17'33 13° Mp 24'36	1°44'07
morning rise	-148 May 30 j 04:04	14) (42 49		min. Earth dist.	-142 Mar 08 j 06:53	13° M) 16'55	4.43696 AU
retrograde	-148 Jul 28 j 14:18	5° Υ 14'24		direct	-142 May 08 j 22:48	8° Mp 22'15	4.43090 AU
min. Earth dist.	-148 Sep 25 j 02:08	0° Υ 20'09	3.99064 AU	evening set	-142 Nay 08 j 22.48 -142 Sep 12 j 15:33	26° My 00'04	
opposition	-148 Sep 26 j 08:05	0° Υ 09'59	-1°-44'-26	max. Earth dist.	-142 Sep 12 j 15:33	28° M) 24'26	6.41971 AU
opposition	-148 Sep 20 j 08:03	0 1 09 39 30° Ŗ ₩	-1 -44 -20	max. Earth dist.	-142 Sep 23 j 10.07	26 11/2420	0.419/1 AU
direct	-148 Nov 23 j 06:12	25° ¥ 14'30		conjunction	-142 Sep 25 j 10:08	28° m 47'27	1°11'01
direct	-147 Jan 17 j 04:23	25 γ (14 30		minimum elong	-142 Sep 25 j 10:09		1°11'01
evening set	-147 Mar 28 j 22:55	14° Υ '42'07		minimum clong	-142 Sep 30 j 22:33	ე∘ <u>ი</u>	1 1101
evening set	-147 Wai 26 j 22.33	14 4207		morning rise	-142 Oct 08 j 02:02	0 = 1° £ 33'40	
conjunction	-147 Apr 11 j 13:34	17° Ƴ 54'37	-1°-2'00	retrograde	-142 Oct 08 j 02:02 -141 Feb 05 j 20:25	18° ⊆ 33'50	
minimum elong	-147 Apr 11 j 13:37	17° Υ 54'38	1°02'00	opposition	-141 Apr 07 j 15:51		1°35'11
max. Earth dist.	-147 Apr 13 j 17:52	18° Υ 25'27	6.02672 AU	min. Earth dist.	-141 Apr 09 j 01:43	13° ⊆ 42'03	4.38794 AU
morning rise	-147 Apr 15 j 17:32 -147 Apr 25 j 06:49	21° Y '08'14	0.02072 AU	direct	-141 Jun 09 j 07:55	8° £ 41'33	4.38794 AU
morning risc	-147 Jun 04 j 00:45	0°8		evening set	-141 Oct 13 j 08:57	26° £ 31'37	
retrograde	-147 Sep 02 j 11:24	11° 8 01'20		max. Earth dist.	-141 Oct 23 j 23:08	28° ⊆ 53'21	6.33977 AU
min. Earth dist.	-147 Oct 30 j 15:31	6° 8 07'34	4.07972 AU	max. Latin dist.	-141 Oct 25 j 25.00	20 -3321	0.55711 AO
opposition	-147 Nov 01 j 00:47	5° 8 56'13	-1°-11'-57	conjunction	-141 Oct 26 j 00:04	29° ≏ 20'44	0°54'44
direct	-147 Dec 29 j 10:09	0° 8 57'42	1 11 37	minimum elong	-141 Oct 26 j 00:06	29° ₽ 20'45	0°54'44
direct	-146 Apr 12 j 13:55	15° 8		minimum ciong	-141 Oct 28 j 22:14	0°M	0 34 44
evening set	-146 May 04 j 20:12	19° 8 58'41		morning rise	-141 Nov 07 j 13:46	2°M09'18	
evening sec	110111119 019 20:12	15 000 11		morning rise	-140 Jan 11 j 17:09	15°M	
conjunction	-146 May 18 j 14:40	23° 8 07'43	0°-30'-46	retrograde	-140 Mar 09 j 11:33	19° M 47'25	
minimum elong	-146 May 18 j 14:42	23° 8 07'45	0°30'46	renograde	-140 May 08 j 19:39	15°RM₁	
max. Earth dist.	-146 May 20 j 13:10	23° 8 34'22	6.14197 AU	opposition	-140 May 09 j 10:55	14°M 55'08	0°58'49
morning rise	-146 Jun 01 j 09:54	26° 8 16'51		min. Earth dist.	-140 May 10 j 20:30	14°M44'26	4.28128 AU
	-146 Jun 18 j 00:42	0°II		direct	-140 Jul 10 j 09:40	9° ™ 57'02	
retrograde	-146 Oct 06 j 04:19	15° Ⅱ 05'56			-140 Sep 08 j 02:59	15° ™	
opposition	-146 Dec 04 j 17:38	10° Ⅱ 02'53	0°-15'-53	evening set	-140 Nov 12 j 19:26	28°M12'55	
min. Earth dist.	-146 Dec 03 j 18:00	10° Ⅱ 10'54	4.20836 AU	Ü	-140 Nov 20 j 14:15	0° ∡ ¹	
direct	-145 Feb 02 i 07:27	5° Ⅱ 01'37		max. Earth dist.	-140 Nov 23 j 19:01	0° ∡ ¹44'11	6.21534 AU
asc. node	-145 Mar 19 j 14:33	8° Ⅱ 07'59			,		
evening set	-145 Jun 09 j 05:33	23° Ⅲ 28'49		conjunction	-140 Nov 25 j 10:52	1° ∡ °07'09	0°21'48
-	· ·			minimum elong	-140 Nov 25 j 10:54	1° ∡ '07'10	0°21'48
conjunction	-145 Jun 22 j 22:01	26° Ⅲ 31'16	0°09'44	morning rise	-140 Dec 08 j 02:02	4° ₹ 01'34	
minimum elong	-145 Jun 22 j 22:01	26° Ⅲ 31'16	0°09'44	retrograde	-139 Apr 13 j 06:28	22° ∡ ³38'28	
behind sun begin	-145 Jun 22 j 15:16	26° Ⅲ 27'31		opposition	-139 Jun 13 j 03:46	17° ∡ ′44′10	0°01'57
behind sun end	-145 Jun 23 j 04:46	26° Ⅲ 35′00		min. Earth dist.	-139 Jun 14 j 02:39	17° ∡ ³36'49	4.14678 AU
max. Earth dist.	-145 Jun 24 j 00:56	26° Ⅱ 46'14	6.27430 AU	desc. node	-139 Jun 25 j 14:06	16° √ 09'51	
morning rise	-145 Jul 06 j 13:05	29° Ⅱ 32'48		direct	-139 Aug 12 j 20:37	12° ∡ ¹48'45	
-	-145 Jul 08 j 14:26	0ಂತಾ			-139 Dec 08 j 18:37	ರ∘ರ	
retrograde	-145 Nov 06 j 21:13	17° © 19'58		evening set	-139 Dec 15 j 19:29	1° る 38'40	
opposition	-144 Jan 05 j 16:27	12° 5 20'37	0°41'57		-		
· F F · · · ·							

Planetary Pheno	omena of Jupiter fr	om -400 th	rough 100 (UT), Astrodienst AG	7-Dez-2017 14:4	8, page	24
Attention, astronom	ical year style is used: T	he year -139 ii	n astronomical cour	nting style is the year 1	140 BCE in historical co	unting style.	
conjunction	-139 Dec 28 j 14:05	4°る39'52	0°-19'-35	max. Earth dist.	-133 Jun 28 j 16:51	1°926'56	6.29061 AU
minimum elong	-139 Dec 28 j 14:04	4° る 39'52	0°19'35	morning rise	-133 Jul 11 j 08:26	4°9514'49	
max. Earth dist.	-139 Dec 27 j 17:55	4° ප 27'56	6.08285 AU	retrograde	-133 Nov 11 j 07:22	21°954'43	
morning rise	-138 Jan 10 j 10:24	7°る42'09		opposition	-132 Jan 10 j 03:09	16°955'50	0°49'16
retrograde	-138 May 20 j 03:24	27° ♂ 24'31		min. Earth dist.	-132 Jan 09 j 20:51	16°957'56	4.34792 AU
opposition	-138 Jul 19 j 16:27	22° る 26'46	0°-59'-8	direct	-132 Mar 11 j 05:39	11° © 52'49	
min. Earth dist.	-138 Jul 19 j 19:09	22° る 25'52	4.02759 AU	evening set	-132 Jul 16 j 09:41	29°547'23	
direct	-138 Sep 16 j 22:19	17°₹33'06		C	-132 Jul 17 j 09:01	$0^{\circ}\Omega$	
	-138 Dec 21 j 00:12	0° ≈			3		
evening set	-137 Jan 19 j 20:13	6°≈54'55		conjunction	-132 Jul 29 j 18:12	2° Ω 41'32	0°49'46
8				minimum elong	-132 Jul 29 j 18:09	2°Ω41'30	0°49'45
conjunction	-137 Feb 01 j 20:57	10° ≈ 02'55	0°-55'-31	max. Earth dist.	-132 Jul 29 j 14:37	2° Ω 39'35	6.39396 AU
minimum elong	-137 Feb 01 j 20:54	10° ≈ 02'54	0°55'32	morning rise	-132 Aug 11 j 23:45	5° Ω 34'10	
max. Earth dist.	-137 Feb 02 j 08:23	10° ≈ 09'49	5.98793 AU		-132 Sep 27 j 15:00	15°Ω	
morning rise	-137 Feb 15 j 00:19	13°≈12'31	0.50755110	retrograde	-132 Dec 10 j 17:11	22° Ω 34'30	
morning rise	-137 Feb 22 j 13:03	15° ≈		opposition	-131 Feb 08 j 22:11	17° Ω 39'18	1°29'20
	-137 May 08 j 18:03	0° \		min. Earth dist.	-131 Feb 09 j 08:48	17° Ω 35'50	4.42511 AU
retrograde	-137 Jun 27 j 04:04	3°) 41′31		mm. Larm dist.	-131 Mar 02 j 10:32	17 8€ 33 30	4.42311710
retrograde	-137 Aug 16 j 02:36	30°R≈		direct	-131 Apr 12 j 01:53	12° Ω 36'09	
min. Earth dist.	-137 Aug 25 j 11:44	28°≈45'40	3.96816 AU	direct	-131 May 23 j 02:23	12 % 30 09	
	• •	28°≈39'49	-1°-40'-18				
opposition	-137 Aug 26 j 05:13		-1 -40-16		-131 Aug 15 j 23:31	0°M)	
direct	-137 Oct 23 j 09:17	23°≈46'08		evening set	-131 Aug 17 j 03:23	0° Mp 14'59	C 42047 ATT
	-137 Dec 25 j 20:40	0° \		max. Earth dist.	-131 Aug 28 j 22:33	2°Mp48'14	6.43847 AU
evening set	-136 Feb 25 j 15:22	13° ¥ 23'14			121 4 20:02 20	207-02156	1000110
	10634 00:00 40	1.60)/(2.512.2	10 101 55	conjunction	-131 Aug 30 j 03:29	3° m 03'56	1°09'19
conjunction	-136 Mar 09 j 23:42	16° ★ 35'33	-1°-10'-55	minimum elong	-131 Aug 30 j 03:27	3° m 03'55	1°09'20
minimum elong	-136 Mar 09 j 23:42	16°) ₹35'33	1°10'56	morning rise	-131 Sep 12 j 00:38	5° m 51'26	
max. Earth dist.	-136 Mar 11 j 14:57	16° ¥ 59'09	5.96862 AU	retrograde	-130 Jan 10 j 02:44	22° m/39'27	
morning rise	-136 Mar 23 j 11:23	19°) 49'34		opposition	-130 Mar 11 j 15:41	17° Mp 46'48	1°44'33
	-136 May 07 j 16:11	0° Υ		min. Earth dist.	-130 Mar 12 j 18:17	17° m) 38'16	4.43565 AU
retrograde	-136 Aug 02 j 15:56	10° Y 21′04		direct	-130 May 13 j 09:58	12° m 44'39	
min. Earth dist.	-136 Sep 30 j 00:29	5° Y 27'18	3.99272 AU		-130 Sep 15 j 04:59	0∘ ⊽	
opposition	-136 Oct 01 j 08:28	5° Y 16′26	-1°-42'-6	evening set	-130 Sep 16 j 22:55	0° ჲ 22'47	
direct	-136 Nov 28 j 05:18	0° Υ 20'37		max. Earth dist.	-130 Sep 27 j 20:17	2° ≏ 45'43	6.41324 AU
evening set	-135 Apr 03 j 03:04	19° Ƴ 48'05					
				conjunction	-130 Sep 29 j 16:49	3° 亞 10'09	1°09'52
conjunction	-135 Apr 16 j 18:41	23° Y 00'42	0°-58'-43	minimum elong	-130 Sep 29 j 16:50	3° ₾ 10'09	1°09'51
minimum elong	-135 Apr 16 j 18:44	23° Y 00'43		morning rise	-130 Oct 12 j 08:13	5° ≙ 56'25	
max. Earth dist.	-135 Apr 18 j 23:09	23° Ƴ 31'35	6.03385 AU	retrograde	-129 Feb 10 j 06:48	23° ♀ 00'06	
morning rise	-135 Apr 30 j 12:40	26° Ƴ 14'19		opposition	-129 Apr 12 j 03:52	18° ≏ 08′20	1°31'36
	-135 May 16 j 21:00	9° 8		min. Earth dist.	-129 Apr 13 j 13:58	17° ≏ 57'29	4.37666 AU
	-135 Aug 13 j 04:18	15° 8		direct	-129 Jun 13 j 18:10	13° ≏ 08′04	
retrograde	-135 Sep 07 j 08:47	16° 8 01'50			-129 Oct 13 j 03:25	0° M	
	-135 Oct 02 j 07:18	15° ₹ 8		evening set	-129 Oct 17 j 17:13	1°M00'51	
opposition	-135 Nov 05 j 21:05	10° 8 56'48	-1°-4'-58	max. Earth dist.	-129 Oct 28 j 08:34	3°M23'44	6.32460 AU
min. Earth dist.	-135 Nov 04 j 12:49	11° 8 07'49	4.09085 AU				
direct	-134 Jan 03 j 09:47	5° 8 57'52		conjunction	-129 Oct 30 j 08:14	3°M50'30	0°50'57
	-134 Mar 24 j 14:24	15° 8		minimum elong	-129 Oct 30 j 08:16	3°M50'32	0°50'57
evening set	-134 May 09 j 22:25	24° 8 56'06		morning rise	-129 Nov 11 j 21:46	6° ™ 39'40	
					-129 Dec 21 j 04:17	15° M ₊	
conjunction	-134 May 23 j 17:11	28° 8 04'37	0°-25'-14	retrograde	-128 Mar 14 j 05:14	24°M24'54	
minimum elong	-134 May 23 j 17:13	28° 8 04'38	0°25'14	opposition	-128 May 14 j 04:40	19°MJ32'29	0°51'46
max. Earth dist.	-134 May 25 j 15:45	28° 8 31'12	6.15638 AU	min. Earth dist.	-128 May 15 j 14:06	19° M 21'50	4.26299 AU
	-134 Jun 01 j 03:33	$\Pi^{\circ}0$			-128 Jun 28 j 11:12	15°RM	
morning rise	-134 Jun 06 j 12:12	1° Ⅱ 13'01		direct	-128 Jul 15 j 00:38	14° M .34'46	
retrograde	-134 Oct 10 j 18:28	19° Ⅱ 53'56			-128 Jul 31 j 12:38	15° ™	
min. Earth dist.	-134 Dec 08 j 09:26		4.22443 AU		-128 Nov 04 j 10:43	0° ∡ ¹	
opposition	-134 Dec 09 j 08:39	14° I 51'18		evening set	-128 Nov 17 j 08:04	2° × 755'18	
asc. node	-133 Jan 26 j 15:12	10° I 02'40	J , 10	max. Earth dist.	-128 Nov 28 j 08:12		6.19548 AU
direct	-133 Feb 07 j 01:33	9° Ц 49'47		max. Darm dist.	120 110 ¥ 20 J 00.12	J A 2131	5.175 TO AU
evening set	-133 Jun 14 j 02:36	9 Ⅱ 4947 28° Ⅱ 12'57		conjunction	-128 Nov 29 j 23:40	5° ∡ ¹50'27	0°16'13
evening set		28°Щ12'37		·	-128 Nov 29 j 23:40 -128 Nov 29 j 23:41	5° x ' 50'27	0°16'13
	-133 Jun 22 j 04:10	v ≈ y		minimum elong	-128 Nov 29 j 23:41 -128 Nov 29 j 22:52	5° x '50'27' 5° x '49'59	0 1013
aaniumatian	122 Jun 27: 10:12	100214122	0015122	behind sun begin			
conjunction	-133 Jun 27 j 18:12	1°914'22		behind sun end	-128 Nov 30 j 00:30	5° \$\bar{Z}\$ 50'56	
minimum elong	-133 Jun 27 j 18:11	1°914'21	0 13 24	morning rise	-128 Dec 12 j 15:32	8°×745'58	
behind sun begin	-133 Jun 27 j 16:21	1°©13'21 1°©15'22		retrograde	-127 Apr 18 j 07:54	27° 🗷 32'26	
behind sun end	-133 Jun 27 j 20:01	1 2013/22		desc. node	-127 May 05 j 02:51	27° ⋌ ¹06'01	

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -127 in astronomical counting style is the year 128 BCE in historical counting style. 22°**∡**³37'42 0°-6'-54 14°**Ⅲ**31'32 -127 Jun 18 j 04:25 direct -121 Feb 11 i 20:15 opposition -127 Jun 19 j 00:32 min. Earth dist. 22°**х** 31'12 4.12677 AU -121 Jun 05 j 21:27 0ಂತಾ -127 Aug 17 j 15:59 17°**х** 42′33 -121 Jun 18 j 20:18 2°5548'56 direct evening set -127 Nov 21 j 13:23 0°궁 -127 Dec 20 j 14:45 6°る37'58 -121 Jul 02 j 11:11 5°9549'10 0°20'46 evening set conjunction -121 Jul 02 j 11:09 0°20'47 minimum elong 5°9549'09 -126 Jan 02 j 10:14 9°る40'18 0°-25'-21 -121 Jul 03 j 07:12 conjunction max. Earth dist. 6°9500'13 6.31052 AU -126 Jan 02 j 10:13 -121 Jul 16 j 00:07 minimum elong 9°**ප්**40'17 0°25'22 morning rise 8°9548'16 -121 Nov 15 j 12:48 -126 Jan 01 j 19:09 max. Earth dist. 9°**ප**31'20 6.06466 AU retrograde 26°9520'13 12°**る**43'44 -120 Jan 14 j 10:20 morning rise -126 Jan 15 j 07:18 opposition 21°**©**21'53 0°56'02 -126 Apr 14 j 06:48 0°≈ min. Earth dist. -120 Jan 14 j 06:10 21°**©**23'16 4.36431 AU -126 May 25 j 12:40 2°≈35'08 -120 Mar 15 j 16:43 16°9518'46 retrograde direct -126 Jul 05 j 23:28 -120 Jul 01 j 05:40 30°Ŗる $0^{\circ}\Omega$ opposition -126 Jul 24 j 22:55 27°る36'52 -1°-6'-46 evening set -120 Jul 20 j 20:50 4°Ω09'37 min. Earth dist. -126 Jul 24 j 23:25 27°る36'42 4.01314 AU direct -126 Sep 22 j 00:30 22°る43'22 conjunction -120 Aug 03 j 03:59 7°**Ω**02'47 0°53'28 -126 Nov 30 j 17:52 0°**≈** minimum elong -120 Aug 03 j 03:57 7°**Ω**02'45 0°53'28 evening set -125 Jan 24 j 23:07 12°≈09'17 max. Earth dist. -120 Aug 02 j 18:42 6°**Ω**57'44 6.40537 AU -125 Feb 05 j 18:40 15°≈ morning rise -120 Aug 16 j 08:28 9°**Q**54'30 -120 Sep 09 j 12:20 15°**Ω** conjunction -125 Feb 07 j 00:44 15°≈18'09 0°-59'-14 retrograde -120 Dec 14 j 22:19 26°**Ω**51'13 minimum elong -125 Feb 07 i 00:42 15°≈18'07 0°59'14 opposition -119 Feb 13 i 03:39 21°Ω56'27 1°33'01 max. Earth dist. -125 Feb 07 i 15:39 15°≈27'08 5.97854 AU min. Earth dist. -119 Feb 13 i 17:59 21°**Ω**51'47 4.43099 AU morning rise -125 Feb 20 i 05:25 18°≈28'41 direct -119 Apr 16 j 11:17 16°Ω53'18 -125 Apr 12 j 22:25 0°**∀** -119 Jul 30 j 23:29 0° m -125 Jul 02 j 12:32 9°**H**01'36 -119 Aug 21 j 10:07 4° m 31'13 retrograde evening set -125 Aug 31 j 12:54 3°**¥**59'24 -1°-43'-11 max. Earth dist. -119 Sep 02 j 01:57 7° m 02'43 6.43816 AU opposition min. Earth dist. -125 Aug 30 j 15:39 4°**)**€06'32 3.96549 AU -125 Oct 05 j 11:55 30°R≈ conjunction -119 Sep 03 j 09:22 7° m 19'47 1°10'33 -125 Oct 28 j 13:46 -119 Sep 03 j 09:21 1°10'34 29°≈05'33 minimum elong 7° **m** 19'47 direct -125 Nov 20 j 16:25 -119 Sep 16 j 05:26 10° Mp 06'54 0°**)**€ morning rise -118 Jan 14 j 07:29 -124 Mar 01 j 22:59 18°**)** 43′06 26° m 55'58 evening set retrograde -118 Mar 15 j 22:36 22° m 03'33 1°44'27 opposition -124 Mar 15 j 08:28 -118 Mar 17 j 02:16 21°**H**55'44 -1°-10'-50 min. Earth dist. 21° Mp 54'41 4.42942 AU conjunction -118 May 17 j 16:08 -124 Mar 15 j 08:28 21°\(\overline{55'44}\) 1°10'51 17° Mp 01'36 minimum elong direct -124 Mar 17 j 03:11 22°**₭**21'22 5.97298 AU -118 Aug 30 j 04:16 max. Earth dist. 0∘**⊽** -124 Mar 28 j 21:08 25°**₩**09'57 -118 Sep 21 j 05:04 morning rise evening set 4°**£**41'47 -118 Oct 02 j 00:16 -124 Apr 18 j 13:58 $0^{\circ}\Upsilon$ max. Earth dist. 7°**₽**04'00 6.40145 AU retrograde -124 Aug 07 j 20:46 15°**Ƴ**37'32 -124 Oct 05 j 03:47 -118 Oct 03 j 22:19 min. Earth dist. 10°**Y**43'41 4.00372 AU conjunction 7° 29'22 1°08'21 opposition -124 Oct 06 j 12:19 10°**Y**32'35 -1°-38'-53 minimum elong -118 Oct 03 j 22:20 7°**♀**29'23 1°08'21 direct -124 Dec 03 j 11:06 5°Y36'20 morning rise -118 Oct 16 j 13:17 10°**£**15'56 -123 Apr 08 j 09:47 24°**Y**59'54 retrograde -117 Feb 14 j 19:23 27°**♀**25'01 evening set -117 Apr 16 j 15:54 22°**♀**33'20 1°27'34 opposition -123 Apr 22 j 02:13 28°**Y**12'07 0°-54'-58 min. Earth dist. -117 Apr 18 j 03:35 22°**2**21'59 4.35995 AU conjunction -123 Apr 22 j 02:16 28°**Y**12′08 0°54'59 -117 Jun 18 i 05:11 minimum elong direct 17°**♀**33'25 -123 Apr 24 j 08:47 28°**Y**44'05 -117 Sep 26 i 16:57 max. Earth dist. 6.05053 AU 0°M -123 Apr 29 j 18:30 -117 Oct 22 j 01:56 0°8 evening set 5°**M**₃30'47 -123 May 05 j 20:36 1°825'07 morning rise max. Earth dist. -117 Nov 01 j 16:27 7°M53'54 6.30428 AU -123 Jul 09 i 22:35 15°8 retrograde -123 Sep 12 i 04:53 21°802'51 conjunction -117 Nov 03 i 16:55 8°M21'14 0°46'53 min. Earth dist. -123 Nov 09 j 09:19 16°808'58 4.11129 AU minimum elong -117 Nov 03 j 16:57 8°M21'16 0°46'53 -123 Nov 10 j 17:30 15°**8**57'59 0°-57'-32 morning rise -117 Nov 16 j 06:44 11°M11'21 opposition -123 Nov 17 j 20:51 -117 Dec 03 j 12:20 15°R₩ 15°M -122 Jan 08 j 09:06 10°858'38 direct retrograde -116 Mar 19 j 00:46 29° ML 05'40-122 Feb 28 j 15:11 15°₩ opposition -116 May 19 j 00:12 24°M13'02 0°44'21 -122 May 14 j 23:40 29°**8**50'40 min. Earth dist. -116 May 20 j 07:33 24°ML03'01 4.24043 AU evening set -116 Jul 19 j 14:47 -122 May 15 j 16:11 Π °0 direct 19°M15'43 -116 Oct 17 j 23:02 0°⊀ -122 May 28 j 18:06 2°II58'05 0°-19'-37 -116 Nov 21 j 22:32 7°**∡**¹42'23 conjunction evening set -122 May 28 j 18:07 -116 Dec 03 j 03:19 10°**₹**18′08 minimum elong 2°**I**58'06 0°19'38 max. Earth dist. 6.17277 AU -122 May 30 j 12:51 max. Earth dist. 3°**Ⅲ**22'22 6.17867 AU -116 Dec 04 j 14:39 morning rise -122 Jun 11 j 12:50 6°**Ⅱ**05'19 conjunction 10°**∡**³38'41 0°10'28 retrograde -122 Oct 15 j 05:57 24°**Ⅲ**35'39 minimum elong -116 Dec 04 j 14:40 10°**∡**38'41 0°10'29 asc. node -122 Dec 06 j 15:28 20°**Ⅲ**31'45 behind sun begin -116 Dec 04 j 08:22 10°**х** 35′02 -122 Dec 13 j 21:23 19°**Ⅲ**33'26 0°01'05 behind sun end -116 Dec 04 j 20:58 10°**∡**¹42'20 opposition min. Earth dist. -122 Dec 13 j 00:41 19°**Ⅱ**40'25 4.24638 AU morning rise -116 Dec 17 j 07:02 13°**∡**³35′25

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -115 in astronomical counting style is the year 116 BCE in historical counting style. opposition -115 Mar 13 j 10:56 0°궁 -110 Dec 18 j 09:06 24°**Ⅱ**13'32 -115 Mar 14 j 07:25 0°**정**06'01 min. Earth dist. -110 Dec 17 i 14:43 24°**Ⅱ**19'43 4.26614 AU desc. node -115 Apr 23 j 14:01 2°る32'36 direct -109 Feb 16 j 12:39 19°**Ⅱ**11'25 retrograde -115 Jun 04 j 02:22 -109 May 19 j 08:48 0ಂತಾ 30°R.✓ opposition -115 Jun 23 j 08:00 27°**∡**'37'29 0°-15'-53 -109 Jun 23 j 13:12 7°524'03 evening set -115 Jun 24 j 02:05 27°**∡**³31'38 min. Earth dist. 4.10579 AU 22°**∡**¹42'45 -115 Aug 22 j 14:43 -109 Jul 07 j 03:03 0°26'02 direct conjunction 10°**©**23'10 -109 Jul 07 j 03:01 0°26'02 -115 Nov 01 j 12:18 0°ಕ minimum elong 10°523'09 -115 Dec 25 j 13:05 -109 Jul 07 j 17:42 evening set 11°**る**43'54 max. Earth dist. 10°931'14 6.32733 AU 13°521'09 -109 Jul 20 j 15:04 morning rise conjunction -114 Jan 07 j 09:15 14°る47'19 0°-31'-1 -109 Oct 28 j 17:49 $0^{\circ}\Omega$ -114 Jan 07 j 09:13 14°**⋜**47'17 0°31'02 -109 Nov 19 j 19:31 0°**Ω**46'39 minimum elong retrograde -114 Jan 06 j 21:43 14°**⋜**40'26 -109 Dec 11 j 18:27 max. Earth dist. 6.04734 AU 30°Rூ -114 Jan 20 j 07:26 morning rise 17°る51'59 opposition -108 Jan 18 j 17:57 25°5548'50 1°02'30 -114 Mar 16 j 23:23 0°≈ min. Earth dist. -108 Jan 18 j 16:50 25°5549'12 4.37720 AU retrograde -114 May 30 j 21:11 7°≈51'39 direct -108 Mar 20 j 04:30 20°9545'35 opposition -114 Jul 30 j 07:20 2°**≈**52'49 -1°-13'-57 -108 Jun 13 j 09:12 $0^{\circ}\Omega$ min. Earth dist. -114 Jul 30 j 03:12 2°≈54'11 4.00155 AU evening set -108 Jul 25 j 08:04 8°**Ω**33′50 -114 Aug 22 j 17:06 30°Ŗる direct -114 Sep 27 j 03:34 27°る59'27 conjunction -108 Aug 07 j 14:14 11°**Ω**26'14 0°56'54 -114 Nov 01 j 04:51 0°≈ minimum elong -108 Aug 07 j 14:11 11°**Ω**26′12 0°56'55 -113 Jan 19 j 18:56 15°**≈** max. Earth dist. -108 Aug 07 j 02:26 11°**Ω**19'49 6.41341 AU evening set -113 Jan 30 j 04:09 17°≈28'18 morning rise -108 Aug 20 j 17:18 14°**Ω**17'05 -108 Aug 24 j 01:02 15°Ω conjunction -113 Feb 12 i 06:51 20°≈37'51 -1°-2'-30 -108 Nov 21 j 12:27 0°m minimum elong -113 Feb 12 i 06:49 20°≈37'49 1°02'31 -108 Dec 19 j 03:05 1° m/11'20 retrograde max. Earth dist. -113 Feb 13 j 03:13 20°≈50'09 5.97359 AU -107 Jan 15 j 17:24 30°RΩ -113 Feb 25 j 12:34 23°≈49'05 -107 Feb 17 j 10:11 26°Ω17'00 1°36'14 morning rise opposition -113 Mar 24 j 00:32 0°**)**€ -107 Feb 18 j 02:17 26° **Ω**11'47 4.43395 AU min. Earth dist. -113 Jul 07 j 22:36 -107 Apr 20 j 19:20 14° **)** 23'42 direct 21°Ω13'58 retrograde 9°**升**20'57 -1°-45'-11 -107 Jul 13 j 01:50 -113 Sep 05 j 21:09 opposition 0° m -113 Sep 04 j 21:58 9°**升**28'46 3.96774 AU -107 Aug 25 j 18:16 8° m 51'42 min. Earth dist. evening set -113 Nov 02 j 21:44 -107 Sep 06 j 04:56 11°M 20'39 4°**¥**26′52 max. Earth dist. 6.43567 AU direct -112 Mar 07 j 06:36 24°**)**€02'55 evening set -107 Sep 07 j 16:23 11° Tp 39'56 1°11'26 conjunction -107 Sep 07 j 16:23 -112 Mar 20 j 17:14 27°**升**15'38 -1°-10'-11 11° Mp 39'56 1°11'25 conjunction minimum elong -107 Sep 20 j 11:44 -112 Mar 20 j 17:15 14° Mp 26'50 minimum elong 27°**X**15'39 1°10'11 morning rise max. Earth dist. -112 Mar 22 j 16:06 27°**)** 43'40 5.98192 AU -107 Dec 20 j 16:40 0∘<u>ଫ</u> -112 Apr 01 j 04:34 $0^{\circ}\Upsilon$ retrograde -106 Jan 18 j 17:00 1°**♀**17'34 0°Y29'51 morning rise -112 Apr 03 j 06:50 -106 Feb 16 j 18:01 30°R, Mp retrograde -112 Aug 12 j 23:46 20°**Y**51′29 opposition -106 Mar 20 j 07:44 26° m/25'21 1°43'47 min. Earth dist. -112 Oct 10 j 05:21 15°**Υ**57'48 4.01831 AU min. Earth dist. -106 Mar 21 j 13:52 26° m 15'42 4.42175 AU -112 Oct 11 j 14:51 15°**Y**46'24 -1°-34'-53 direct -106 May 22 j 02:15 21° m 23'35 opposition direct -112 Dec 08 j 14:25 10°**Y**49'46 -106 Aug 12 j 03:55 0°**⊽** -111 Apr 13 j 15:20 0°**8**08'32 evening set -106 Sep 25 j 12:31 9°**≏**05'56 evening set -106 Oct 06 i 06:35 -111 Apr 13 j 00:37 0°8 max. Earth dist. 11°**≏**27'56 6.38916 AU -111 Apr 27 j 08:10 3°**8**20'06 0°-50'-50 -106 Oct 08 i 05:26 conjunction conjunction 11°**⊆**53'48 1°06'25 -111 Apr 27 j 08:13 -106 Oct 08 i 05:27 minimum elong 3°**8**20'08 0°50'50 minimum elong 11°**£**53'49 1°06'25 -111 Apr 29 j 12:51 -106 Oct 20 i 19:58 max. Earth dist. 3°**8**50'50 6.06918 AU morning rise 14°**£**40'43 -111 May 11 i 03:04 6°832'26 -105 Jan 14 i 16:46 0°M morning rise 15°8 -111 Jun 18 j 10:18 retrograde -105 Feb 19 j 08:15 1°M55'21 retrograde -111 Sep 16 j 22:19 26°800'07 -105 Mar 27 j 08:27 30°R**≏** -111 Nov 14 j 05:00 21°806'04 4.13192 AU min. Earth dist. opposition -105 Apr 21 j 06:09 27°**2**03'37 1°22'55 -111 Nov 15 j 11:59 0°-49'-46 -105 Apr 22 j 16:49 opposition 20°**8**55'30 min. Earth dist. 26°**£**52'35 4.34390 AU 15°**8**55'44 -105 Jun 22 j 15:37 direct -110 Jan 13 j 08:13 direct 22°**₽**04'04 -110 Apr 28 j 16:22 $\Pi^{\circ}0$ -105 Sep 08 j 00:49 0°M -105 Oct 26 j 12:14 -110 May 19 j 23:18 4°**Ⅱ**42′02 evening set 10°M05'27 evening set -105 Nov 06 j 04:28 max. Earth dist. 12°MJ30'10 6.28596 AU -110 Jun 02 j 17:41 7°**II**48'28 0°-13'-56 conjunction -110 Jun 02 j 17:42 7°**Ⅱ**48'29 0°13'57 -105 Nov 08 j 03:08 12°M56'38 0°42'27 minimum elong conjunction -110 Jun 02 j 13:42 7°**Ⅱ**46′13 behind sun begin minimum elong -105 Nov 08 j 03:11 12°M56'39 0°42'26 -110 Jun 02 j 21:43 7°**I**I50'44 behind sun end -105 Nov 17 j 04:51 15°M max. Earth dist. -110 Jun 04 j 10:28 8°**I**11'31 6.19984 AU morning rise -105 Nov 20 j 17:06 15°**M**₄47'33 morning rise -110 Jun 16 j 11:45 10°**I**54'30 -104 Feb 01 j 17:38 0°**∡** -110 Oct 16 j 12:19 29°**Ⅱ**14'09 retrograde -104 Mar 23 j 23:39 3°**х** 50′14 asc. node

retrograde

-110 Oct 19 j 17:43

29°**I**15'11

-104 May 15 j 15:35

30°RM

•	omena of Jupiter fr		•	4.1			27
Attention, astronom	nical year style is used: T	he year -104 is	n astronomical cou	unting style is the year 1	105 BCE in historical co		
opposition	-104 May 23 j 21:25	28° M 57′22	0°36'30	direct	-98 Jan 18 j 03:32	20° 8 42'47	
min. Earth dist.	-104 May 25 j 04:02	28° M 47′35	4.22105 AU		-98 Apr 10 j 11:09	Π $^{\circ}0$	
direct	-104 Jul 24 j 08:47	24°ML00'28		evening set	-98 May 24 j 19:39	9° Ⅱ 24'23	
	-104 Sep 27 j 06:17	0° ∡ ¹					
evening set	-104 Nov 26 j 14:04	12° ₹ 31'53		conjunction	-98 Jun 07 j 13:39	12° Ⅱ 29'55	0°-8'-20
max. Earth dist.	-104 Dec 07 j 21:44	15° ∡ ′09'58	6.15428 AU	minimum elong	-98 Jun 07 j 13:39	12° Ⅱ 29'55	0°08'20
				behind sun begin	-98 Jun 07 j 06:21	12° Ⅱ 25'50	
conjunction	-104 Dec 09 j 06:35	15° ∡ ¹29'09	0°04'38	behind sun end	-98 Jun 07 j 20:58	12° Ⅲ 34′01	
minimum elong	-104 Dec 09 j 06:35	15° ∡ ¹29'09	0°04'38	max. Earth dist.	-98 Jun 09 j 02:29	12° Ⅱ 50'39	6.21757 AU
behind sun begin	-104 Dec 08 j 22:45	15° ∡ ¹24'36		morning rise	-98 Jun 21 j 07:17	15° Ⅱ 34'59	
behind sun end	-104 Dec 09 j 14:25	15° ∡ ³33'42		asc. node	-98 Aug 27 j 12:31	28° Ⅱ 53'59	
morning rise	-104 Dec 21 j 23:41	18° ∡ ¹26'58			-98 Sep 03 j 22:55	0°©	
desc. node	-103 Jan 21 j 16:12	25° ∡ ¹20'14		retrograde	-98 Oct 24 j 01:41	3°9647'37	
	-103 Feb 14 j 01:05	0°ಕ		C	-98 Dec 13 j 13:13	30° Ŗ Ⅱ	
retrograde	-103 Apr 28 j 17:01	7° පි 33'01		opposition	-98 Dec 22 j 18:18	28° Ⅱ 46'31	0°17'25
opposition	-103 Jun 28 j 11:22	2° る 37'24	0°-24'-46	min. Earth dist.	-98 Dec 22 j 02:00	28° Ⅱ 51'59	4.28181 AU
min. Earth dist.	-103 Jun 29 j 01:17	2° る 32'53	4.08993 AU	direct	-97 Feb 21 j 01:32	23° Ⅱ 44'11	20101110
min. Burur dist.	-103 Jul 19 j 20:35	30°R. ₹		4.1.001	-97 Apr 29 j 07:52	0°9	
direct	-103 Aug 27 j 12:04	27° × ⁷ 42'58		evening set	-97 Jun 28 j 04:04	11°953'40	
direct	-103 Oct 04 j 14:25	0°る		evening set	-97 Juli 20 j 04.04	11 333 40	
evening set	-103 Dec 30 j 10:53	16° る 47'56		conjunction	-97 Jul 11 j 17:05	14°951'54	0°31'01
evening set	-103 Dec 30 J 10.33	10 04/30		-		14 951 54 14°951'53	
	102 1 12:07 47	100=752110	00 271 24	minimum elong	-97 Jul 11 j 17:03		0°31'00
conjunction	-102 Jan 12 j 07:47	19°る52'10	0°-36'-24	max. Earth dist.	-97 Jul 12 j 04:19	14°958'04	6.33992 AU
minimum elong	-102 Jan 12 j 07:45	19°る52'09	0°36'25	morning rise	-97 Jul 25 j 03:54	17°548'54	
max. Earth dist.	-102 Jan 12 j 01:32	19°る48'26	6.03558 AU		-97 Sep 25 j 10:48	0° Ω	
morning rise	-102 Jan 25 j 06:49	22° る 57'44		retrograde	-97 Nov 24 j 02:03	5° Ω 09'29	
	-102 Feb 24 j 21:43	0° ≈		opposition	-96 Jan 23 j 00:22	0°Ω12'18	1°08'29
retrograde	-102 Jun 05 j 05:31	13°≈03'23		min. Earth dist.	-96 Jan 23 j 01:58	0° Ω 11'46	4.38606 AU
opposition	-102 Aug 04 j 13:55	8° ≈ 03'56	-1°-20'-24		-96 Jan 24 j 13:44	30° ₹ 5	
min. Earth dist.	-102 Aug 04 j 07:13	8° ≈ 06'09	3.99516 AU	direct	-96 Mar 24 j 14:23	25° © 09'05	
direct	-102 Oct 02 j 07:54	3° ≈ 10'34			-96 May 22 j 23:09	$0^{\circ}\Omega$	
	-101 Jan 02 j 02:08	15° ≈		evening set	-96 Jul 29 j 18:34	12° Ω 56′03	
evening set	-101 Feb 04 j 06:56	22° ≈ 40′24			-96 Aug 08 j 07:31	15° Ω	
conjunction	-101 Feb 17 j 10:39	25° ≈ 50'25	-1°-5'-11	conjunction	-96 Aug 11 j 23:33	15° Ω 47'49	0°59'58
minimum elong	-101 Feb 17 j 10:37	25° ≈ 50′24	1°05'12	minimum elong	-96 Aug 11 j 23:30	15° Ω 47'48	0°59'58
max. Earth dist.	-101 Feb 18 j 11:53	26° ≈ 05'38	5.97302 AU	max. Earth dist.	-96 Aug 11 j 07:09	15° Ω 38'55	6.41777 AU
morning rise	-101 Mar 02 j 17:23	29° ≈ 02'07		morning rise	-96 Aug 25 j 01:38	18° £ 38′06	
	-101 Mar 06 j 18:25	0° ∀			-96 Oct 22 j 05:14	0° m	
retrograde	-101 Jul 13 j 04:04	19° ¥ 36′20		retrograde	-96 Dec 23 j 09:45	5° Mp 31'10	
min. Earth dist.	-101 Sep 10 j 00:01	14°) 41'43	3.97339 AU	opposition	-95 Feb 21 j 17:03	0° m/37'13	1°38'54
opposition	-101 Sep 11 j 01:27	14°) €33'09	-1°-46'-13	min. Earth dist.	-95 Feb 22 j 11:28		4.43397 AU
direct	-101 Nov 08 j 00:13	9°) €38'48			-95 Feb 26 j 12:12	30°R Ω	
evening set	-100 Mar 12 j 11:03	29°) 12′29		direct	-95 Apr 25 j 03:56	25° Ω 34'19	
	-100 Mar 15 j 19:03	0° Υ			-95 Jun 21 j 02:56	0° m)	
	1001.141 10 j 19.00	• •		evening set	-95 Aug 30 j 02:07	13° m) 12'38	
conjunction	-100 Mar 25 j 22:28	2° Y 25'05	-1°-8'-58	max. Earth dist.	-95 Sep 10 j 11:28	15° Mp 41'03	6.43134 AU
minimum elong	-100 Mar 25 j 22:29	2° Υ 25'06	1°09'00	mas. Darm dist.	75 50p 10 J 11.20	בטודיעה כו	v. 13137 AU
max. Earth dist.	-100 Mar 27 j 21:41	2° Υ 53'14	5.99285 AU	conjunction	-95 Sep 11 j 23:31	16° Mp 00'43	1°11'52
		5° Υ 39'10	3.99263 AU	-		-	
morning rise	-100 Apr 08 j 13:04			minimum elong	-95 Sep 11 j 23:30		1°11'52
retrograde	-100 Aug 17 j 21:07	25° Υ 54'10	4.02224.411	morning rise	-95 Sep 24 j 17:51	18° m 47'25	
min. Earth dist.	-100 Oct 15 j 03:05	21°Υ00'29	4.03324 AU		-95 Nov 20 j 17:49	0° ⊽	
opposition	-100 Oct 16 j 12:50	20° Y 48'58	-1°-30'-17	retrograde	-94 Jan 23 j 01:01	5° £ 40′25	
direct	-100 Dec 13 j 14:33	15° Y 51'53		opposition	-94 Mar 24 j 17:22	0° ≏ 48′24	1°42'29
	-99 Mar 27 j 04:48	0° 8		min. Earth dist.	-94 Mar 25 j 23:46	0° £ 38'41	4.41352 AU
evening set	-99 Apr 18 j 16:50	5° 8 06'06			-94 Mar 31 j 01:29	30°R Mp	
				direct	-94 May 26 j 10:25	25° Mp 46'59	
conjunction	-99 May 02 j 10:21	8° 8 17'08	0°-46'-28		-94 Jul 20 j 18:54	0∘ ऌ	
minimum elong	-99 May 02 j 10:24	8° 8 17'10	0°46'28	evening set	-94 Sep 29 j 20:28	13° £ 31'25	
max. Earth dist.	-99 May 04 j 14:51	8° 8 47'37	6.08688 AU	max. Earth dist.	-94 Oct 10 j 12:46	15° ≙ 52'57	6.37756 AU
morning rise	-99 May 16 j 05:19	11° 8 28'43					
	-99 May 31 j 17:30	15° 8		conjunction	-94 Oct 12 j 12:44	16° ≏ 19'33	1°04'05
	-99 Aug 30 j 14:41	Π $^{\circ}0$		minimum elong	-94 Oct 12 j 12:46	16° ≏ 19'34	1°04'05
retrograde	-99 Sep 21 j 14:38	0° Ⅱ 47'09		morning rise	-94 Oct 25 j 03:05	19° ≙ 06'49	
	-99 Oct 13 j 07:48	30° ₹ 8			-94 Dec 18 j 00:28	0° M	
min. Earth dist.	-99 Nov 18 j 22:06	25° 8 52'43	4.15040 AU	retrograde	-93 Feb 23 j 23:51	6°M26'42	
opposition	-99 Nov 20 j 02:57	25° 8 42'54		opposition	-93 Apr 25 j 20:47	1°MJ34'54	1°17'43
	•				· ·		

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 28 Attention, astronomical year style is used: The year -93 in astronomical counting style is the year 94 BCE in historical counting style. 1°M23'40 4.32947 AU 26°**Υ**'04'44 4.04502 AU min. Earth dist. -93 Apr 27 j 08:03 min. Earth dist. -88 Oct 20 i 02:16 -93 May 08 j 11:58 -88 Oct 21 j 11:14 25°**Y**'53'29 -1°-25'-2 opposition -93 Jun 27 j 04:49 26°**♀**35'40 -88 Dec 18 j 15:44 20°Y55'56 direct direct -93 Aug 14 j 22:48 0° 8 0°M -87 Mar 08 j 06:37 -93 Oct 30 j 22:14 14°M40'22 -87 Apr 23 j 19:46 10°**8**06'49 evening set evening set -93 Nov 01 j 09:02 15°M max. Earth dist. -93 Nov 10 j 16:06 conjunction 13°**8**17'25 0°-41'-43 17°M06'31 6.26982 AU -87 May 07 j 13:41 13°**8**17'26 0°41'44 -87 May 07 j 13:44 minimum elong -87 May 09 j 16:38 13°**8**46'52 conjunction -93 Nov 12 j 13:17 17°MJ32'13 0°37'46 max. Earth dist. 6.10146 AU -93 Nov 12 j 13:19 minimum elong 17°M32'14 0°37'46 -87 May 14 j 23:14 15°8 -93 Nov 25 j 03:26 16°**8**28'26 morning rise 20°M23'54 morning rise -87 May 21 j 09:00 -92 Jan 09 j 08:14 -87 Jul 26 j 07:24 $\Pi^{\circ}0$ 0°**∡**7 -92 Mar 28 j 19:05 -87 Sep 26 j 05:46 retrograde 8°**₰**³34'07 retrograde 5°**耳**38'31 opposition -92 May 28 j 17:54 3°**∡**¹40'55 0°28'25 opposition -87 Nov 24 j 19:07 0°**Ⅲ**34'34 0°-33'-46 min. Earth dist. -92 May 29 j 21:57 3°**∡**31'57 4.20413 AU min. Earth dist. -87 Nov 23 j 14:51 0°**Д**44'11 4.16626 AU -92 Jun 30 j 07:16 30°RM -87 Nov 29 j 01:07 30°R₩ direct -92 Jul 28 j 23:48 28°M44'24 direct -86 Jan 22 j 22:33 25°**8**34'03 -92 Aug 26 j 14:13 0°×7 -86 Mar 18 j 10:59 $\Pi^{\circ}0$ evening set -92 Dec 01 j 04:40 17°**∡**19'49 evening set -86 May 29 j 18:11 14°**Ⅱ**11'52 desc. node -92 Dec 01 j 13:01 17°**∡**24'40 conjunction -86 Jun 12 j 11:51 17°**Ⅱ**16'34 0°-2'-33 conjunction -92 Dec 13 j 21:30 20°**х** 17'54 0°-1'-19 minimum elong -86 Jun 12 j 11:51 17°**Ⅱ**16'34 0°02'34 minimum elong -92 Dec 13 j 21:32 20°**х** 17′55 0°01'21 behind sun begin -86 Jun 12 j 03:31 17°**Ⅱ**11'55 behind sun begin -92 Dec 13 j 13:31 20°**х** 13′14 behind sun end -86 Jun 12 j 20:12 17°**Ⅲ**21'13 behind sun end -92 Dec 14 j 05:33 20°**х** 22′35 max. Earth dist. -86 Jun 13 j 21:24 17°**Ⅲ**35'24 6.23368 AU max. Earth dist. -92 Dec 12 j 15:54 20°**✗**00'33 6.13789 AU -86 Jun 26 j 04:49 20°II20'39 morning rise -92 Dec 26 j 15:16 23°**х** 16'42 -86 Jul 07 j 00:53 22°**II**44'05 morning rise asc node -91 Jan 25 j 10:34 0°る -86 Aug 11 j 10:19 000 -91 May 03 j 20:30 12°る31'05 -86 Oct 28 j 13:53 8°925'39 retrograde retrograde -91 Jul 03 j 13:24 -86 Dec 27 j 05:54 7°る34'58 0°-33'-25 3°525'06 0°25'31 opposition opposition -91 Jul 04 j 01:25 7°る31'03 4.07521 AU min. Earth dist. -86 Dec 26 j 16:22 3°529'38 4.29681 AU min. Earth dist. -91 Sep 01 j 10:56 2°る40'44 -85 Jan 24 j 11:32 direct 30°R∏ -90 Jan 04 j 07:32 21°る49'24 -85 Feb 25 j 17:58 28°**Ⅲ**22'37 direct evening set -85 Mar 30 j 10:15 0.00 24°る54'30 0°-41'-29 -90 Jan 17 j 05:17 -85 Jul 02 j 21:06 16°528'49 conjunction evening set -90 Jan 17 j 05:15 24°る54'28 0°41'30 minimum elong -90 Jan 17 j 03:18 24°る53'18 6.02388 AU -85 Jul 16 j 09:10 19°526'08 0°35'56 max. Earth dist. conjunction morning rise -90 Jan 30 j 05:15 28°る00'59 minimum elong -85 Jul 16 j 09:07 19°526'07 0°35'57 -90 Feb 07 j 14:34 0°≈ max. Earth dist. -85 Jul 16 j 17:10 19°**©**30'32 6.35286 AU -90 Apr 25 j 10:58 15°≈ morning rise -85 Jul 29 j 18:52 22°9522'08 retrograde -90 Jun 10 j 11:44 18°≈12'27 -85 Sep 04 j 11:12 $0^{\circ}\Omega$ -90 Jul 26 j 22:25 -85 Nov 28 j 08:57 9°**Ω**37'35 15°R≈ retrograde -90 Aug 09 j 18:28 13°≈12'29 -1°-26'-12 -84 Jan 27 j 09:18 4°Ω40'52 1°14'14 opposition opposition min. Earth dist. -90 Aug 09 j 08:51 13°≈15'40 3.98795 AU min. Earth dist. -84 Jan 27 j 12:16 4° Ω 39'54 4.39653 AU direct -90 Oct 07 j 08:17 8°≈19'05 -84 Mar 13 j 14:11 30°Rூ -90 Dec 12 j 13:29 -84 Mar 29 i 02:04 29°937'40 15°**≈** direct -89 Feb 09 i 09:11 27°≈50'46 $0^{\circ}\Omega$ evening set -84 Apr 13 j 18:29 -89 Feb 18 i 08:07 0°**)**€ -84 Jul 23 i 03:47 15°Ω evening set -84 Aug 03 j 06:41 17°**Ω**22'23 -89 Feb 22 j 13:48 1° **₩**01'19 -1°-7'-21 conjunction -89 Feb 22 i 13:47 1° **€** 01'18 1°07'22 conjunction -84 Aug 16 j 10:30 20°Ω13'22 1°02'46 minimum elong max. Earth dist. -89 Feb 23 j 17:18 1°**)** 17'53 5.97069 AU minimum elong -84 Aug 16 j 10:27 20°Ω13'21 1°02'46 max. Earth dist. -89 Mar 07 j 21:46 4° **)** 13'37 -84 Aug 15 j 16:19 20° **Ω**03'30 6.42529 AU morning rise -89 Jul 18 j 07:09 24°**)**(48'10 morning rise 23°**Ω**02'50 retrograde -84 Aug 29 j 11:15 -89 Sep 15 j 01:15 min. Earth dist. 19°**¥**53'46 3.97629 AU -84 Oct 02 j 00:40 0° m -89 Sep 16 j 04:36 opposition 19°**)** 44'31 -1°-46'-28 retrograde -84 Dec 27 j 16:33 9° m 53'31 14°**)** 49'48 -83 Feb 26 j 01:23 4° m 59'57 1°41'03 direct -89 Nov 13 j 02:32 opposition $0^{\circ}\Upsilon$ -88 Feb 27 j 21:09 min. Earth dist. -83 Feb 26 j 21:23 4° Mp 53'30 4.43834 AU -88 Mar 17 j 15:22 4°Υ'22'25 -83 Apr 24 j 03:00 30°R€ evening set -83 Apr 29 j 14:31 29°**Ω**57'17 direct -88 Mar 31 j 04:01 7°**Y**35'10 -1°-7'-15 -83 May 05 j 02:39 conjunction 0° m minimum elong -88 Mar 31 j 04:03 7°**Υ**35'11 1°07'16 evening set -83 Sep 03 j 10:32 17° m 34'18 max. Earth dist. -88 Apr 02 j 06:00 8°**Y**04'53 6.00072 AU max. Earth dist. -83 Sep 14 j 15:54 20° m 00'43 6.43217 AU 10°**Y**49'14 morning rise -88 Apr 13 j 19:22 -88 Jul 29 j 07:45 0° 8 conjunction -83 Sep 16 j 06:51 20° m/21'57 1°11'57 -88 Aug 22 j 21:37 0°858'43 -83 Sep 16 j 06:51 20° m 21'57 1°11'58 retrograde minimum elong -88 Sep 16 j 04:31 30°₹**Ƴ** morning rise -83 Sep 29 j 00:28 23° Mp 08'19

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -83 in astronomical counting style is the year 84 BCE in historical counting style. -83 Oct 31 j 22:15 0∘**⊽** -76 Feb 09 i 17:01 0° -82 Jan 27 i 09:56 10°**£**01'52 -76 Mar 22 j 18:15 9°**Y**27'24 retrograde evening set -82 Mar 29 j 03:08 5°**2**09'56 1°40'38 opposition -82 Mar 30 j 10:38 4°**2**59'52 4.41083 AU -76 Apr 05 j 07:51 12°Υ40'26 -1°-5'-3 min. Earth dist. conjunction -82 May 30 j 20:43 -76 Apr 05 j 07:54 12°**Y**40′28 1°05'03 direct 0°**£**08'45 minimum elong evening set -82 Oct 04 j 02:47 -76 Apr 07 j 10:36 13°**Y**10′33 6.00495 AU 17°**♀**53'12 max. Earth dist. 15°**Y**54'46 max. Earth dist. -82 Oct 14 j 19:46 6.37156 AU -76 Apr 19 j 00:19 20°**₽**15'19 morning rise -76 Jun 24 j 21:27 0°8 -76 Aug 27 j 18:56 6°**8**00'05 conjunction -82 Oct 16 j 18:44 20°**£**41'23 1°01'27 retrograde -82 Oct 16 j 18:46 20°**-**41′24 minimum elong 1°01'26 min. Earth dist. -76 Oct 24 j 21:57 1°**8**06'30 4.05356 AU -82 Oct 29 j 08:34 0°**8**54'53 -1°-19'-15 morning rise 23°**£**28'45 opposition -76 Oct 26 j 07:58 -82 Nov 28 j 22:16 -76 Nov 02 j 01:48 30°₹**Ƴ** 0°M -81 Feb 28 j 10:31 -76 Dec 23 j 13:03 25°Y56'57 retrograde 10° M $_{\circ}52'10$ direct opposition -81 Apr 30 j 09:33 6°ML00'16 1°12'11 -75 Feb 12 j 11:41 0°8 min. Earth dist. -81 May 01 j 20:07 5°**™**49'17 4.32032 AU evening set -75 Apr 28 j 22:03 15°**8**05'54 direct -81 Jul 01 j 14:58 1°M01'25 -75 Apr 28 j 11:47 15°8 -81 Oct 16 j 15:01 15°M evening set -81 Nov 04 j 05:33 19°ML07'40 conjunction -75 May 12 j 16:25 18°**8**16'09 0°-36'-42 max. Earth dist. -81 Nov 14 j 23:34 21°M34'22 6.25821 AU minimum elong -75 May 12 j 16:28 18°816'10 0°36'43 max. Earth dist. -75 May 14 j 18:02 18°**8**44'46 6.11372 AU conjunction -81 Nov 16 j 20:24 21°M59'57 0°33'00 morning rise -75 May 26 j 11:53 21°826'40 minimum elong -81 Nov 16 j 20:26 21°M59'58 0°32'59 -75 Jul 04 i 18:11 $\Pi^{\circ}0$ morning rise -81 Nov 29 j 10:50 24°M52'13 retrograde -75 Sep 30 j 22:46 10°**Ⅲ**29'21 -81 Dec 22 j 13:45 0°×7 min. Earth dist. -75 Nov 28 i 08:50 5°**II**34'40 4.18073 AU retrograde -80 Apr 02 j 12:53 13°**х** 08′46 opposition -75 Nov 29 j 11:10 5°**Ⅱ**25'43 0°-25'-25 -80 Jun 02 j 11:04 8°**₹**15'15 0°20'24 direct -74 Jan 27 j 19:01 0°**I**I24'52 opposition min. Earth dist. -80 Jun 03 j 14:31 8°**҂**06'27 4.19050 AU -74 May 16 j 11:33 14°**I**I59'56 asc. node direct -80 Aug 02 j 14:30 3°**х** 19′01 -74 Jun 03 j 16:11 18°**Ⅲ**59′05 evening set -80 Oct 13 j 12:04 10°**∡**36′18 desc. node -74 Jun 17 j 09:28 22°**I**102'56 0°03'20 -80 Dec 05 j 15:36 21°×757'35 evening set conjunction -74 Jun 17 j 09:28 -80 Dec 17 j 06:02 24°**∡**°40'39 22°**Ⅲ**02'56 0°03'20 max. Earth dist. 6.12355 AU minimum elong -74 Jun 17 j 01:11 21°II58'19 behind sun begin -80 Dec 18 j 09:01 -74 Jun 17 j 17:45 22°**Ⅲ**07'33 conjunction 24° \$\sqrt{2}56'30 0°-6'-59 behind sun end -80 Dec 18 j 09:01 -74 Jun 18 j 17:40 22°**Ⅲ**20'57 24° 🗷 56'30 0°07'00 max. Earth dist. 6.24923 AU minimum elong -80 Dec 18 j 01:34 -74 Jul 01 j 01:39 24° x 52'09 25°**I**106'01 behind sun begin morning rise -80 Dec 18 j 16:27 25°**х** 00′51 -74 Jul 23 j 15:34 behind sun end 000 -80 Dec 31 j 03:19 27°**х** 56′10 -74 Nov 01 j 22:57 morning rise retrograde 13°903'29 -74 Dec 31 j 17:05 -79 Jan 09 j 00:47 0°궁 opposition 8°903'22 0°33'23 -79 May 08 j 18:51 retrograde 17°**ප**18'16 min. Earth dist. -74 Dec 31 j 04:22 8°**5**07'37 4.31204 AU opposition -79 Jul 08 j 10:57 12°る21'45 0°-41'-32 direct -73 Mar 02 j 08:28 3°9500'41 min. Earth dist. -79 Jul 08 j 20:48 12°る18'32 4.06143 AU evening set -73 Jul 07 j 13:27 21°903'14 -79 Sep 06 j 03:34 7°る27'44 direct -78 Jan 09 j 00:32 26°る40'19 conjunction -73 Jul 21 j 00:19 23°959'30 0°40'37 evening set minimum elong -73 Jul 21 j 00:16 23°959'29 0°40'38 -78 Jan 21 j 22:58 29°**ප්**46'18 0°-46'-5 max. Earth dist. -73 Jul 21 j 04:26 24°501'46 6.36637 AU conjunction -78 Jan 21 i 22:55 29°る46'16 0°46'07 -73 Aug 03 i 08:48 26°954'26 minimum elong morning rise -78 Jan 21 i 22:59 29°る46'18 6.01175 AU -73 Aug 17 j 18:46 max. Earth dist. $0^{\circ}\Omega$ -78 Jan 22 j 21:48 -73 Dec 02 j 16:33 14°**Ω**04'31 0°≈ retrograde 2°≈53'47 9°Ω08'14 1°19'31 morning rise -78 Feb 04 i 00:01 opposition -72 Jan 31 i 17:33 -78 Mar 31 i 01:16 15°≈ min. Earth dist. -72 Jan 31 i 23:32 9°Ω06'17 4.40715 AU retrograde -78 Jun 15 i 13:45 23°≈11'42 direct -72 Apr 02 j 15:04 4°Ω04'59 -78 Aug 14 j 19:03 18°≈11'13 -1°-31'-12 -72 Jul 05 j 23:01 15°Ω opposition min. Earth dist. -78 Aug 14 j 07:02 18°≈15'13 3.97881 AU -72 Aug 07 j 17:27 21°**Ω**47'11 evening set -78 Sep 09 j 23:21 15°R≈ direct -78 Oct 12 j 05:15 13°≈17'45 conjunction -72 Aug 20 j 20:09 24° Ω37'26 1°05'13 24°**Ω**37'25 -78 Nov 13 j 05:21 15°**≈** minimum elong -72 Aug 20 j 20:07 1°05'12 -77 Feb 02 j 05:50 0°**∀** max. Earth dist. -72 Aug 19 j 22:42 24°**Ω**25'49 6.43172 AU -77 Feb 14 j 08:10 2°**¥**52'30 morning rise -72 Sep 02 j 19:44 27°**Ω**26′10 evening set -72 Sep 14 j 19:57 0° m -77 Feb 27 j 14:05 6°**∺**03'50 -1°-8'-57 -72 Dec 31 j 22:14 14° My 15'03conjunction retrograde -77 Feb 27 j 14:04 -71 Mar 02 j 09:10 minimum elong 6°**★**03'50 1°08'58 opposition 9° m 21'42 1°42'40 max. Earth dist. -77 Feb 28 j 21:58 6°**¥**23'04 5.96551 AU min. Earth dist. -71 Mar 03 j 06:38 9° Mp 14'46 4.44019 AU morning rise -77 Mar 12 j 23:03 9°**H**16'51 direct -71 May 03 j 23:34 4° m/ 19'07 retrograde -77 Jul 23 j 10:36 29°**)** 53'04 evening set -71 Sep 07 j 17:55 21° m 55'40 min. Earth dist. -77 Sep 20 j 01:06 24°**₭**58'36 3.97582 AU max. Earth dist. -71 Sep 18 j 21:38 24° My 21'20 6.42908 AU -77 Sep 21 j 04:59 24°**)**(49'09 -1°-45'-56 opposition -77 Nov 18 j 02:08 19°**)** 54′11 conjunction -71 Sep 20 j 13:26 24° m/ 43'05 1°11'39 direct

Planetary Pheno	omena of Jupiter f	rom -400 th	rough 100 (U	Γ), Astrodienst AC	6 7-Dez-2017 14:4	8, page	30
Attention, astronom	ical year style is used: T	The year -71 in	astronomical cour	nting style is the year 72	2 BCE in historical cour	ting style.	
minimum elong	-71 Sep 20 j 13:27	24° m 43'05	1°11'39	min. Earth dist.	-65 Sep 25 j 03:21	0° Ƴ 16'48	3.98225 AU
morning rise	-71 Oct 03 j 06:10	27° m 29'14		opposition	-65 Sep 26 j 10:07	0° Y 06′22	-1°-44'-30
	-71 Oct 14 j 22:32	0∘ ত			-65 Sep 27 j 04:51	30° ₹ ₩	
retrograde	-70 Jan 31 j 18:46	14° ≙ 24'53		direct	-65 Nov 23 j 06:22	25° ℋ 11'04	
opposition	-70 Apr 02 j 13:22	9° ഫ 33'02	1°38'15		-64 Jan 17 j 12:58	0 ° Υ	
min. Earth dist.	-70 Apr 03 j 22:13	9° £ 22'34	4.40281 AU	evening set	-64 Mar 28 j 01:26	14° Ƴ 41'51	
direct	-70 Jun 04 j 06:59	4° ≙ 32'08					
evening set	-70 Oct 08 j 10:07	22° ≏ 18'24		conjunction	-64 Apr 10 j 15:59	17° Ƴ 54'43	-1°-2'-17
max. Earth dist.	-70 Oct 19 j 00:36	24° ♀ 39'37	6.35909 AU	minimum elong	-64 Apr 10 j 16:02	17° Ƴ 54'44	1°02'17
				max. Earth dist.	-64 Apr 12 j 20:12	18° Ƴ 25'36	6.01790 AU
conjunction	-70 Oct 21 j 01:34	25° ≏ 06'53	0°58'26	morning rise	-64 Apr 24 j 09:07	21° Y 08'44	
minimum elong	-70 Oct 21 j 01:36	25° £ 06'55	0°58'25		-64 Jun 02 j 23:47	0° ႘	
morning rise	-70 Nov 02 j 15:23	27° £ 54'43		retrograde	-64 Sep 01 j 18:00	11° 8 05'57	
Ü	-70 Nov 12 j 03:09	0° M ₊		min. Earth dist.	-64 Oct 29 j 21:31	6° 8 12'06	4.07138 AU
	-69 Feb 17 j 00:18	15° M ₊		opposition	-64 Oct 31 j 06:46	6° 8 00'44	-1°-12'-47
retrograde	-69 Mar 05 j 01:35	15°M24'02		direct	-64 Dec 28 j 15:51	1° 8 02'21	,
renograde	-69 Mar 21 j 02:48	15°RM		4.1.001	-63 Apr 11 j 06:57	15° 8	
opposition	-69 May 05 j 00:47	10°ML31'57	1°06'07	evening set	-63 May 04 j 01:07	20° 8 05'41	
min. Earth dist.	-69 May 06 j 11:20	10°M20'57	4.30398 AU	evening set	-03 Way 04 J 01.07	20 003 41	
direct	-69 Jul 06 j 03:47	5°M33'22	4.30398 AU	conjunction	-63 May 17 j 19:43	23° 8 15'04	0°-31'-27
direct	-69 Sep 28 j 22:35	15°M		minimum elong	, ,	23° 8 15'05	0°31'27
. ,				•	-63 May 17 j 19:46		
evening set	-69 Nov 08 j 15:50	23°M43'39	C 22047 ATT	max. Earth dist.	-63 May 19 j 21:13	23° 8 43'28	6.13494 AU
max. Earth dist.	-69 Nov 19 j 12:30	26°M12'25	6.23947 AU	morning rise	-63 May 31 j 14:57	26° 8 24'33	
. ,.	(0.)1 21:07.02	2 (0 m 2 (147	0007150	. 1	-63 Jun 16 j 15:16	0°II	
conjunction	-69 Nov 21 j 07:02	26°M36'47	0°27'52	retrograde	-63 Oct 05 j 11:58	15° Ⅱ 16′24	
minimum elong	-69 Nov 21 j 07:04	26°M36'48	0°27'52	min. Earth dist.	-63 Dec 03 j 00:14	10° Ⅲ 21'52	4.20312 AU
morning rise	-69 Dec 03 j 21:41	29°M29'58		opposition	-63 Dec 04 j 01:52	10° Ⅱ 13'11	0°-17'-1
	-69 Dec 06 j 02:30	0° ∡ ¹		direct	-62 Feb 01 j 13:22	5° Ⅱ 12'01	
retrograde	-68 Apr 07 j 10:52	17° ₹ 55'21		asc. node	-62 Mar 26 j 15:20	9° Ⅱ 22'07	
opposition	-68 Jun 07 j 09:01	13° ₹ 01'31	0°11'54	evening set	-62 Jun 08 j 12:14	23° Ⅱ 40'07	
min. Earth dist.	-68 Jun 08 j 10:46	12° ₹ ′53'16	4.17061 AU				
direct	-68 Aug 07 j 07:46	8° ∡ 05'39		conjunction	-62 Jun 22 j 04:41	26° Ⅱ 42'43	0°08'56
desc. node	-68 Aug 23 j 06:25	8° ∡ ¹29'48		minimum elong	-62 Jun 22 j 04:39	26° Ⅱ 42'43	0°08'56
evening set	-68 Dec 10 j 08:06	26° ⊀ ¹49'29		behind sun begin	-62 Jun 21 j 21:35	26° Ⅲ 38'48	
max. Earth dist.	-68 Dec 22 j 00:57	29° х 34′42	6.10422 AU	behind sun end	-62 Jun 22 j 11:43	26° Ⅱ 46'38	
				max. Earth dist.	-62 Jun 23 j 07:48	26° Ⅱ 57'50	6.27091 AU
conjunction	-68 Dec 23 j 01:56	29° ∡ ¹49'26	0°-12'-51	morning rise	-62 Jul 05 j 20:02	29° Ⅱ 44'29	
minimum elong	-68 Dec 23 j 01:55	29° ∡ ¹49'25	0°12'52		-62 Jul 07 j 00:10	0ಂತಾ	
behind sun begin	-68 Dec 22 j 20:50	29° ∡ ¹46'26		retrograde	-62 Nov 06 j 06:46	17° © 32'54	
behind sun end	-68 Dec 23 j 07:00	29° ₹ 52'24		opposition	-61 Jan 05 j 01:37	12° © 33'19	0°40'48
	-68 Dec 23 j 19:51	0°ರ		min. Earth dist.	-61 Jan 04 j 16:20	12° © 36'25	4.33118 AU
morning rise	-67 Jan 04 j 21:10	2° る 50'19		direct	-61 Mar 06 j 22:54	7° © 30'26	
retrograde	-67 May 14 j 00:30	22° る 22'01		evening set	-61 Jul 12 j 01:56	25°\$28'23	
opposition	-67 Jul 13 j 15:15	17° る 24'56	0°-49'-51	2148			
min. Earth dist.	-67 Jul 13 j 21:57	17° る 22'45	4.04439 AU	conjunction	-61 Jul 25 j 11:50	28° © 23'36	0°44'55
direct	-67 Sep 11 j 03:02	12°る31'04		minimum elong	-61 Jul 25 j 11:47	28° © 23'35	0°44'55
direct	-66 Jan 06 j 09:50	0°≈		max. Earth dist.	-61 Jul 25 j 12:49	28° © 24'08	6.38139 AU
evening set	-66 Jan 14 j 00:30	0 ≈ 1° ≈ 48'32		max. Darm dist.	-61 Aug 01 j 20:32	0°Ω	5.56157 AU
evening set	-00 Jan 14 J 00.30	1 ~40 32		morning rise	-61 Aug 07 j 18:57	1° Ω 17'23	
conjunction	-66 Jan 27 j 00:03	4° ≈ 55'32	0°-50' 38	morning risc	-61 Oct 20 j 08:13	1 0€ 17 23	
minimum elong	-66 Jan 27 j 00:00	4°≈55'30	0°50'39	retrograde	-61 Dec 06 j 19:09	13° 87 18° Ω 22'21	
_	-			retrograde	-		
max. Earth dist.	-66 Jan 27 j 05:53	4°≈59'02	5.99877 AU	• , •	-60 Jan 23 j 19:42	15°R Ω	1024110
morning rise	-66 Feb 09 j 02:03	8°≈04'03		opposition	-60 Feb 04 j 22:44	13° Ω 26'32	1°24'10
	-66 Mar 11 j 00:41	15° ≈		min. Earth dist.	-60 Feb 05 j 06:33	13° Ω 23'59	4.41722 AU
retrograde	-66 Jun 20 j 23:41	28° ≈ 28'02		direct	-60 Apr 06 j 22:34	8° Ω 23′20	
opposition	-66 Aug 20 j 02:23	23° ≈ 27'03	-1°-35'-47		-60 Jun 16 j 18:42	15° Ω	
min. Earth dist.	-66 Aug 19 j 12:14	23° ≈ 31'46	3.97169 AU	evening set	-60 Aug 12 j 00:52	26° Ω 03'32	
direct	-66 Oct 17 j 09:40	18° ≈ 33'33		max. Earth dist.	-60 Aug 24 j 00:42	28° Ω 39'14	6.43591 AU
	-65 Jan 15 j 03:14	0° ∀					
evening set	-65 Feb 19 j 14:19	8° ₩ 10'14		conjunction	-60 Aug 25 j 02:20	28° Ω 53′09	1°07'13
				minimum elong	-60 Aug 25 j 02:18	28° Ω 53′08	1°07'13
conjunction	-65 Mar 04 j 21:15	11°) 22′06	-1°-10'-7	-	-60 Aug 30 j 05:33	0° m	
minimum elong	-65 Mar 04 j 21:14	11° ∺ 22'05		morning rise	-60 Sep 07 j 00:53	1° m)41'17	
max. Earth dist.	-65 Mar 06 j 08:16	11°) 43′11		retrograde	-59 Jan 05 j 03:29	18° m 29'34	
morning rise	-65 Mar 18 j 07:34	14°) (35'41	-	opposition	-59 Mar 06 j 14:44	13° Mp 36'35	1°43'43
<i>3</i>	-65 May 30 j 16:56	0°Υ		min. Earth dist.	-59 Mar 07 j 15:27	13° m/28'38	4.43834 AU
retrograde	-65 Jul 28 j 16:05	5° Υ 10'37		direct	-59 May 08 j 07:40	8° Mp 34'10	
	20 J 10.00	. 1037				J 110	

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 31 Attention, astronomical year style is used: The year -59 in astronomical counting style is the year 60 BCE in historical counting style. -59 Sep 11 j 23:12 26° m 11'41 max. Earth dist. -53 Mar 11 j 21:04 17°**)**€07'17 5.96913 AU evening set max. Earth dist. -59 Sep 22 j 23:02 28°M)35'36 6.42111 AU -53 Mar 23 j 17:04 19°**¥**57'29 morning rise -53 May 07 j 06:22 $0^{\circ}\Upsilon$ -59 Sep 24 j 18:02 28° m 59'08 1°10'58 -53 Aug 02 j 22:12 10°**Y**28'52 conjunction retrograde 5°**Υ**34'53 3.99306 AU -59 Sep 24 j 18:03 -53 Sep 30 j 07:38 28° m 59'08 1°10'58 minimum elong min. Earth dist. -59 Sep 29 j 09:14 0∘**⊽** -53 Oct 01 j 14:57 5°**Y**24'13 opposition -1°-42'-12 1°**≏**45'24 -59 Oct 07 j 10:13 0° Y28'28 morning rise direct -53 Nov 28 j 13:01 -58 Feb 05 j 03:01 19°**Y**55'19 retrograde 18°**₽**45'02 evening set -52 Apr 02 j 08:18 -58 Apr 06 j 22:41 1°35'24 opposition 13°**£**53'15 min. Earth dist. -58 Apr 08 j 08:12 13°**≏**42'34 4.38932 AU conjunction -52 Apr 15 j 23:44 23°**Y**07'49 0°-59'-3 direct -58 Jun 08 j 14:18 8°**≏**52'36 minimum elong -52 Apr 15 j 23:46 23°Y07'50 0°59'04 -58 Oct 12 j 16:46 -52 Apr 18 j 05:56 23°**Y**39'43 evening set max. Earth dist. 6.03407 AU -58 Oct 23 j 08:00 -52 Apr 29 j 17:24 26° Y21'18 max. Earth dist. 29°**≙**04'55 6.34111 AU morning rise -52 May 15 j 13:25 0°8 conjunction -58 Oct 25 j 08:08 29°**♀**31'50 0°55'06 -52 Aug 10 j 22:38 15°8 minimum elong -58 Oct 25 j 08:10 29°**≙**31'51 0°55'06 retrograde -52 Sep 06 j 14:52 16°**8**09'04 -58 Oct 27 j 10:27 0°M -52 Oct 03 j 00:35 15°R₩ morning rise -58 Nov 06 j 21:48 2°M20'23 min. Earth dist. -52 Nov 03 j 18:43 11°815'19 4.09105 AU -57 Jan 09 j 21:22 15°M₀ opposition -52 Nov 05 j 03:52 11°**8**04'00 -1°-5'-49 retrograde -57 Mar 09 j 18:09 19°M57'45 direct -51 Jan 02 j 15:20 6°805'12 opposition -57 May 09 j 17:01 15°M05'35 0°59'39 -51 Mar 23 j 05:25 15°8 -57 May 10 j 10:35 15°RM evening set -51 May 09 j 03:05 25°**8**02'42 min. Earth dist. -57 May 11 j 03:30 14°M.54'37 4.28255 AU direct -57 Jul 10 j 16:54 10°ML07'27 conjunction -51 May 22 j 21:33 28°**8**11'07 0°-25'-59 -57 Sep 07 j 07:16 15°M minimum elong -51 May 22 j 21:35 28°**8**11'08 0°26'00 -57 Nov 13 j 03:31 28°M23'32 max. Earth dist. -51 May 24 j 19:10 28°**8**37'09 6.15632 AU evening set -57 Nov 20 j 03:50 0°×7 -51 May 30 j 20:32 $\Pi^{\circ}0$ -57 Nov 24 j 00:47 0°**х** 53'30 6.21638 AU -51 Jun 05 j 16:42 1°**Ⅱ**19'32 max. Earth dist. morning rise -51 Oct 10 j 00:47 20°**Ⅱ**01'05 retrograde -51 Dec 08 j 15:35 -57 Nov 25 j 18:51 1°**х** 17'43 0°22'32 14°**I**58'17 0°-8'-34 conjunction opposition -51 Dec 07 j 16:31 15°**I**106'05 4.22414 AU -57 Nov 25 j 18:53 minimum elong 1°**х** 17'44 0°22'31 min. Earth dist. 4°**∡**12'08 morning rise -57 Dec 08 j 10:11 -50 Feb 03 j 11:42 9°**I**57'34 asc. node -56 Apr 12 j 12:11 -50 Feb 06 j 08:50 9°**I**56'45 retrograde 22°×748'11 direct -56 Jun 12 j 09:20 -50 Jun 13 j 07:04 28°**Ⅱ**19'26 17°**∡**753'59 0°03'11 opposition evening set -56 Jun 13 j 08:12 17°**∡**¹46'37 4.14762 AU -50 Jun 20 j 21:01 min. Earth dist. 0ಂತಾ -56 Jul 02 j 19:05 desc. node 15°**х** 23′56 1°520'56 0°14'29 -56 Aug 12 j 02:39 12°**₹**′58'27 -50 Jun 26 j 22:57 direct conjunction -56 Dec 07 j 09:06 0°₹ minimum elong -50 Jun 26 j 22:56 1°**©**20'56 0°14'29 evening set -56 Dec 15 j 03:15 1°る48'43 behind sun begin -50 Jun 26 j 19:33 1°9519'04 behind sun end -50 Jun 27 j 02:18 1°522'47 conjunction -56 Dec 27 j 21:56 4°る49'53 0°-18'-44 max. Earth dist. -50 Jun 27 j 23:34 1°**9**34'35 6.29009 AU -56 Dec 27 j 21:55 4°る49'52 0°18'44 morning rise -50 Jul 10 j 13:10 4°9521'26 minimum elong max. Earth dist. -56 Dec 27 j 02:28 4°る38'21 6.08359 AU -50 Nov 10 j 13:39 22°902'00 retrograde -55 Jan 09 j 17:55 7°る52'02 -49 Jan 09 j 09:56 17°503'00 0°48'00 morning rise opposition -55 May 19 j 10:21 27°る33'34 min. Earth dist. -49 Jan 09 j 02:43 17°505'24 4.34718 AU retrograde -55 Jul 18 j 22:15 22°る36'00 0°-57'-55 -49 Mar 11 j 11:02 opposition direct 12°900'01 -55 Jul 19 i 02:12 29°954'26 min. Earth dist. 22°る34'42 4.02828 AU evening set -49 Jul 16 i 14:47 17°**ප්**42'22 -49 Jul 17 i 01:06 direct -55 Sep 16 j 05:11 $0^{\circ}\Omega$ -55 Dec 19 j 14:40 0°≈ -54 Jan 19 j 03:28 7°≈04'11 -49 Jul 29 j 23:22 2°Ω48'41 0°49'00 evening set conjunction minimum elong -49 Jul 29 i 23:19 2°Ω48'39 0°48'59 -54 Feb 01 i 03:51 10°≈12'03 0°-54'-50 max. Earth dist. -49 Jul 29 j 18:44 2°Ω46'09 6.39295 AU conjunction -54 Feb 01 j 03:48 10°≈12'02 0°54'51 -49 Aug 12 j 05:24 5°**Ω**41'31 minimum elong morning rise -54 Feb 01 j 13:37 -49 Sep 27 j 04:08 max. Earth dist. 10°≈17'56 5.98850 AU 15°Ω morning rise -54 Feb 14 j 07:09 13°≈21'33 retrograde -49 Dec 11 j 01:16 22° **Q**42'31 -54 Feb 21 j 04:32 15°**≈** opposition -48 Feb 09 j 05:02 17°**Ω**47'11 1°28'27 -54 May 06 j 23:52 0°**)**€ min. Earth dist. -48 Feb 09 j 16:29 17°**Ω**43'27 4.42387 AU -54 Jun 26 j 08:41 3°**)** 49′55 -48 Mar 02 j 21:56 15°RΩ retrograde -54 Aug 16 j 10:56 -48 Apr 11 j 09:07 12°**Ω**43'57 30°R≈ direct -54 Aug 25 j 11:11 28°**≈**48'19 -1°-39'-35 -48 May 21 j 03:30 15°**Ω** opposition -48 Aug 14 j 14:19 min. Earth dist. -54 Aug 24 j 16:50 28°≈54'28 3.96870 AU 0° m direct -54 Oct 22 j 14:59 23°≈54'41 evening set -48 Aug 16 j 09:17 0° M 23'06 -54 Dec 24 j 08:13 0°**)**€ max. Earth dist. -48 Aug 28 j 05:55 2° M 57'05 6.43705 AU evening set -53 Feb 24 j 21:43 13°**)**31'31 conjunction -48 Aug 29 j 09:53 3° m 12'16 1°08'54 -53 Mar 10 j 05:48 16°**)** 43'41 -1°-10'-41 -48 Aug 29 j 09:52 3° m 12'15 1°08'54 conjunction minimum elong -53 Mar 10 j 05:48 16°**)** 43'40 1°10'43 morning rise -48 Sep 11 j 07:17 5° m 59'57 minimum elong

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 32 Attention, astronomical year style is used: The year -47 in astronomical counting style is the year 48 BCE in historical counting style. -47 Jan 09 i 08:42 22° m 48'30 retrograde direct -42 Oct 27 i 20:08 29°≈07'56 -47 Mar 10 j 22:13 17° m 55'46 1°44'15 -42 Nov 19 j 08:58 0°**₩** opposition min. Earth dist. -47 Mar 11 j 23:54 17° Mp 47'32 4.43419 AU -41 Mar 02 j 02:07 18°**)**(43'31 evening set -47 May 12 j 14:49 direct 12° m 53'33 -47 Sep 13 j 18:25 0∘**ত** -41 Mar 15 j 11:16 21°**)** 55'48 -1°-10'-40 conjunction -47 Sep 16 j 06:14 0°**₽**32'28 -41 Mar 15 j 11:16 21°\\$55'48 1°10'41 evening set minimum elong -47 Sep 27 j 03:50 -41 Mar 17 j 06:11 22°**)**€21'32 5.97672 AU max. Earth dist. 2°**£**55'33 6.41191 AU max. Earth dist. -41 Mar 28 j 23:30 25°\ 09'41 morning rise $0^{\circ}\Upsilon$ -41 Apr 18 j 17:11 conjunction -47 Sep 29 j 00:20 3°**₽**19'58 1°09'53 -47 Sep 29 j 00:21 -41 Aug 07 j 23:00 15° **Y**36'04minimum elong 3°**₽**19'59 1°09'52 retrograde -47 Oct 11 j 15:59 morning rise 6°**£**06'24 min. Earth dist. -41 Oct 05 j 06:49 10°**Y**42'17 4.00583 AU -46 Feb 09 j 15:10 -41 Oct 06 j 15:15 10°**Y**31'15 -1°-39'-7 retrograde 23°**♀**10'22 opposition -46 Apr 11 j 10:41 -41 Dec 03 j 13:29 5°**Y**35′10 opposition 18° 218'41 1°31'56 direct min. Earth dist. -46 Apr 12 j 21:44 18°**♀**07'32 4.37559 AU evening set -40 Apr 07 j 11:08 24°**Y**57'50 direct -46 Jun 13 j 01:55 13°**♀**18'23 -46 Oct 11 j 15:35 0°M conjunction -40 Apr 21 j 03:05 28°**Y**′09′51 0°-55'-27 evening set -46 Oct 17 j 01:32 1°M12'01 minimum elong -40 Apr 21 j 03:08 28°**Y**09'53 0°55'28 max. Earth dist. -46 Oct 27 j 15:48 3°MJ34'18 6.32400 AU max. Earth dist. -40 Apr 23 j 07:31 28°**Ƴ**40'35 6.05058 AU -40 Apr 28 j 23:15 0°8 conjunction -46 Oct 29 j 16:44 4°**ጤ**01'47 0°51'23 morning rise -40 May 04 j 21:23 1°822'49 minimum elong -46 Oct 29 j 16:46 4°ML01'48 0°51'23 -40 Jul 09 j 04:10 15°8 morning rise -46 Nov 11 j 06:31 6°M51'03 retrograde -40 Sep 11 i 07:07 21°801'36 -46 Dec 19 j 13:34 15°M opposition -40 Nov 09 i 20:52 15°**8**56'44 0°-58'-39 retrograde -45 Mar 14 j 11:58 24°M36'07 min. Earth dist. -40 Nov 08 i 12:56 16°**と**07'37 4.10938 AU opposition -45 May 14 j 11:21 19°ML43'46 0°52'40 -40 Nov 16 i 20:21 15°R₩ min. Earth dist. -45 May 15 j 19:55 19°ML33'23 4.26327 AU direct -39 Jan 07 i 12:22 10°857'30 -45 Jul 03 j 00:35 -39 Feb 27 j 20:13 15°8 15°R M. -45 Jul 15 j 06:37 14°ML46'01 -39 May 14 j 00:58 29°**8**50'02 direct evening set -45 Jul 27 j 13:09 15°M₀ -39 May 14 j 18:36 Π °0 -45 Nov 03 j 22:26 0°×7 -45 Nov 17 j 16:54 3°**х** 07′03 -39 May 27 j 19:34 2°II57'39 0°-20'-33 evening set conjunction -45 Nov 28 j 18:30 5°**х** 40′08 -39 May 27 j 19:36 max. Earth dist. minimum elong 2°II57'40 0°20'34 6.19688 AU -39 May 29 j 15:28 max. Earth dist. 3°**Д**22'36 6.17516 AU -39 Jun 10 j 14:12 6°**Ⅲ**05′03 -45 Nov 30 j 08:38 6° **₹**02'12 0°16'57 conjunction morning rise -45 Nov 30 j 08:39 -39 Oct 14 j 11:42 24°**Ⅲ**37'42 6°**х** 02'13 0°16'57 minimum elong retrograde 19°**II**42'30 4.24170 AU -45 Dec 13 j 00:20 8°**х** 57′38 -39 Dec 12 j 05:16 morning rise min. Earth dist. 27°**∡**¹42'56 -39 Dec 13 j 02:05 -44 Apr 17 j 15:35 19°**耳**35'29 0°00'-21 retrograde opposition desc. node -44 May 12 j 05:16 26°**х** 46′50 asc. node -39 Dec 15 j 12:12 19°**Ⅲ**15'54 opposition -44 Jun 17 j 10:50 22°**x**¹48'23 0°-5'-39 direct -38 Feb 10 j 23:38 14°**Ⅲ**33'44 -44 Jun 18 j 07:49 min. Earth dist. 22°**҂**′41'37 4.12948 AU -38 Jun 04 j 18:11 0ಂತಾ direct -44 Aug 16 j 23:53 17°**∡**753′16 evening set -38 Jun 17 j 23:27 2°952'32 -44 Nov 20 j 02:26 0°궁 -44 Dec 19 j 22:56 6°る48'03 conjunction -38 Jul 01 j 14:25 5°953'04 0°19'48 evening set minimum elong -38 Jul 01 j 14:24 5°953'03 0°19'48 -43 Jan 01 j 18:09 9°る50'08 0°-24'-29 max. Earth dist. -38 Jul 02 j 09:41 6°503'42 6.30503 AU conjunction -43 Jan 01 j 18:07 9°**ප**50'07 0°24'30 -38 Jul 15 i 03:51 minimum elong morning rise 8°952'35 -43 Jan 01 i 01:49 9°る40'26 6.06853 AU -38 Nov 14 j 19:54 max. Earth dist. retrograde 26°9527'05 -43 Jan 14 j 15:09 12°**る**53'21 -37 Jan 13 j 16:42 21°528'38 0°54'45 morning rise opposition -43 Apr 12 j 11:08 0°≈ min. Earth dist. -37 Jan 13 j 12:26 21°530'03 4.35867 AU retrograde -43 May 24 j 15:51 2°≈42'25 direct -37 Mar 15 j 21:52 16°925'31 -43 Jul 06 i 06:07 30°Rる -37 Jun 30 j 19:14 $0^{\circ}\Omega$ -43 Jul 24 j 04:07 27°**⋜**44'16 -1°-5'-29 -37 Jul 21 j 02:00 4°**Ω**17'59 opposition evening set min. Earth dist. -43 Jul 24 j 03:38 27°る44'25 4.01801 AU -43 Sep 21 j 05:55 22°る50'48 direct conjunction -37 Aug 03 j 09:41 7°Ω11'33 0°52'43 0°≈ -43 Nov 29 j 09:52 minimum elong -37 Aug 03 j 09:38 7°**Ω**11'31 0°52'43 evening set -42 Jan 24 j 05:03 12°≈14'55 max. Earth dist. -37 Aug 03 j 02:42 7°**Ω**07'45 6.40024 AU 10°**Ω**03'35 -42 Feb 04 j 15:36 15°≈ morning rise -37 Aug 16 j 14:23 -37 Sep 08 j 23:52 15°**Ω** -42 Feb 06 j 06:24 15°≈23'24 0°-58'-32 retrograde -37 Dec 15 j 05:51 27°**Ω**02′12 conjunction -42 Feb 06 j 06:22 15°≈23'23 0°58'32 -36 Feb 13 j 11:07 22°Ω07'21 1°32'11 minimum elong opposition -42 Feb 06 j 21:32 15°≈32'31 5.98389 AU -36 Feb 14 j 00:07 22°Ω03'08 4.42681 AU max. Earth dist. min. Earth dist. morning rise -42 Feb 19 j 10:36 18°≈33'31 direct -36 Apr 15 j 16:45 17°**Ω**04'16 -42 Apr 11 j 19:25 0°**)**€ -36 Jul 29 j 07:21 0° m retrograde -42 Jul 01 j 16:00 9°**₩**03'53 evening set -36 Aug 20 j 17:35 4° Mp 43'22 opposition -42 Aug 30 j 16:43 4°**₭**01'46 -1°-42'-26 max. Earth dist. -36 Sep 01 j 09:13 7° Mp 14'54 6.43533 AU min. Earth dist. -42 Aug 29 j 20:39 4°**₭**08'30 3.97036 AU -42 Oct 05 j 04:46 conjunction -36 Sep 02 j 17:00 7° m/32'11 1°10'10 30°R≈

Planetary Pheno	omena of Jupiter f	rom -400 th	rough 100 (UT), Astrodienst AC	7-Dez-2017 14:4	8, page	33
Attention, astronom	ical year style is used:	The year -36 in	astronomical count	ting style is the year 37	7 BCE in historical coun	ting style.	
minimum elong	-36 Sep 02 j 16:59	7° m 32'10	1°10'09	retrograde	-30 Jul 06 j 21:30	14°) 1 4′43	
morning rise	-36 Sep 15 j 13:36	10° m) 19'34		opposition	-30 Sep 04 j 20:36	9° ∺ 12'07	-1°-44'-31
retrograde	-35 Jan 13 j 17:23	27° m 09'21		min. Earth dist.	-30 Sep 03 j 22:05	9° 升 19'42	3.97046 AU
opposition	-35 Mar 15 j 06:37	22° Mp 16'53	1°44'10	direct	-30 Nov 01 j 21:12	4°) 18′04	
min. Earth dist.	-35 Mar 16 j 10:34	22° m 07'55	4.42817 AU	evening set	-29 Mar 07 j 05:53	23° ¥ 53'16	
direct	-35 May 17 j 00:37	17° m) 14'51		•	v		
	-35 Aug 28 j 10:05	0∘ ⊽		conjunction	-29 Mar 20 j 15:58	27° ¥ 05'46	-1°-10'-8
evening set	-35 Sep 20 j 13:35	4° £ 55'28		minimum elong	-29 Mar 20 j 15:59	27°) €05'46	1°10'08
max. Earth dist.	-35 Oct 01 j 10:10		6.40201 AU	max. Earth dist.	-29 Mar 22 j 11:47	27°) (31'59	5.98189 AU
man zarm alou.	30 300 01 10.10	, —1021	00201110	man. Darut dige.	-29 Apr 01 j 19:54	0°Υ	0.90109110
conjunction	-35 Oct 03 j 07:14	7° ≙ 43'09	1°08'22	morning rise	-29 Apr 03 j 05:20	0° Υ 19'50	
minimum elong	-35 Oct 03 j 07:14	7° £ 43'09	1°08'22	retrograde	-29 Aug 12 j 22:36	20° Υ 42'15	
	-		1 06 22	min. Earth dist.		20 γ 42 13 15° γ 48'27	4.01544 AU
morning rise	-35 Oct 15 j 22:19	10° £ 29'46			-29 Oct 10 j 05:57		
retrograde	-34 Feb 14 j 02:07	27° £ 38'09	1007150	opposition	-29 Oct 11 j 14:56	15° ℃ 37'12	-1°-35'-23
opposition	-34 Apr 15 j 23:19	22° £ 46'25	1°27'53	direct	-29 Dec 08 j 14:32	10° Y 40′38	
min. Earth dist.	-34 Apr 17 j 09:25	22° △ 35'34	4.36250 AU	evening set	-28 Apr 12 j 14:20	0° 8 00'27	
direct	-34 Jun 17 j 11:25	17° ≏ 46′27			-28 Apr 12 j 13:33	0°8	
	-34 Sep 25 j 01:11	0° M					
evening set	-34 Oct 21 j 10:30	5° M 43′06		conjunction	-28 Apr 26 j 07:10	3° 8 12'13	0°-51'-28
max. Earth dist.	-34 Nov 01 j 02:08	8°MJ06'40	6.30873 AU	minimum elong	-28 Apr 26 j 07:13	3° 8 12'15	0°51'29
				max. Earth dist.	-28 Apr 28 j 12:29	3° 8 43'22	6.06389 AU
conjunction	-34 Nov 03 j 01:31	8°M33'24	0°47'20	morning rise	-28 May 10 j 01:45	6° 8 24'43	
minimum elong	-34 Nov 03 j 01:33	8°M33'25	0°47'19	_	-28 Jun 17 j 22:36	15° ∀	
morning rise	-34 Nov 15 j 15:20	11°ML23'19		retrograde	-28 Sep 16 j 02:26	25° 8 55'35	
Č	-34 Dec 01 j 23:18	15° M ₊		min. Earth dist.	-28 Nov 13 j 08:10	21° 8 01'19	4.12474 AU
retrograde	-33 Mar 19 j 07:53	29°M15'22		opposition	-28 Nov 14 j 14:33	20° 8 50'59	0°-51'-3
opposition	-33 May 19 j 06:05	24°M22'47	0°45'18	direct	-27 Jan 12 j 09:51	15° 8 51'21	0 31 3
min. Earth dist.	-33 May 20 j 14:20	24°M12'29		direct	-27 Apr 27 j 22:16	0°Ⅱ	
direct	-33 Jul 19 j 22:45	19°M25'22	4.24040 AO	evening set	-27 May 19 j 00:29	4° Ⅱ 40'00	
direct		19 11623 22 0° √ 1		evening set	-27 May 19 J 00.29	4 Д4000	
	-33 Oct 17 j 13:29				27.1 01:10.52	70T 46151	00 141 52
evening set	-33 Nov 22 j 05:40	7° × 750'11	6 1 MOOT 1 XX	conjunction	-27 Jun 01 j 18:53	7° Ⅱ 46'51	0°-14'-53
max. Earth dist.	-33 Dec 03 j 09:14	10° ∡ ¹24'59	6.17991 AU	minimum elong	-27 Jun 01 j 18:54	7° Ⅱ 46'52	0°14'55
				behind sun begin	-27 Jun 01 j 16:09	7° ∏ 45'19	
conjunction	-33 Dec 04 j 21:40	10° ≯ ¹46'08	0°11'18	behind sun end	-27 Jun 01 j 21:40	7° Ⅱ 48'25	
minimum elong	-33 Dec 04 j 21:41	10° ⊀ ¹46′08	0°11'18	max. Earth dist.	-27 Jun 03 j 11:29	8° Ⅲ 09'51	6.19127 AU
behind sun begin	-33 Dec 04 j 15:44	10° ∡ ¹42'43		morning rise	-27 Jun 15 j 13:18	10° Ⅱ 53'25	
behind sun end	-33 Dec 05 j 03:37	10° ∡ ¹49'34		retrograde	-27 Oct 18 j 22:52	29° Ⅱ 18′03	
morning rise	-33 Dec 17 j 13:58	13° ∡ ¹42'30		asc. node	-27 Oct 25 j 06:31	29° Ⅱ 14′04	
	-32 Mar 12 j 01:19	ರ°0		opposition	-27 Dec 17 j 14:24	24° Ⅱ 16′17	0°07'59
desc. node	-32 Mar 22 j 02:49	1° る 04'38		min. Earth dist.	-27 Dec 16 j 19:12	24° Ⅲ 22'46	4.25718 AU
retrograde	-32 Apr 22 j 15:14	2°る36'05		direct	-26 Feb 15 j 15:41	19° Ⅱ 14'17	
Ü	-32 Jun 03 j 17:53	30°R <i>⊀</i> 7			-26 May 18 j 03:27	0° ©	
opposition	-32 Jun 22 j 11:05	27° ∡ 741′02	0°-14'-26	evening set	-26 Jun 22 j 17:33	7° 5 29'43	
min. Earth dist.	-32 Jun 23 j 04:33		4.11358 AU	evening sec	20 0 411 22 j 17.33	, 02, .5	
direct	-32 Aug 21 j 18:19	22° × ⁷ 46'11	4.11550710	conjunction	-26 Jul 06 j 07:47	10° © 29'21	0°25'07
uncet		22 X 4011 0°る		-	·	10°S29'20	0°25'07
	-32 Oct 31 j 11:53			minimum elong	-26 Jul 06 j 07:45		
evening set	-32 Dec 24 j 17:33	11° る 44'51		max. Earth dist.	-26 Jul 07 j 00:22	10°538'30	6.31895 AU
	21 I 06:12.27	140745145	00 201 1	morning rise	-26 Jul 19 j 20:02	13° © 27'49	
conjunction	-31 Jan 06 j 13:27	14°る47'47			-26 Oct 25 j 19:50	0° N	
minimum elong	-31 Jan 06 j 13:25	14°る47'46		retrograde	-26 Nov 19 j 04:52	0° Ω 56'34	
max. Earth dist.	-31 Jan 06 j 01:42		6.05503 AU		-26 Dec 13 j 09:16	30°₹∽	
morning rise	-31 Jan 19 j 11:12	17° る 51'55		opposition	-25 Jan 18 j 01:50	25° © 58'44	1°01'21
	-31 Mar 16 j 06:04	0° ≈		min. Earth dist.	-25 Jan 17 j 23:48	25° © 59'24	4.37024 AU
retrograde	-31 May 29 j 21:56	7° ≈ 47'56		direct	-25 Mar 20 j 10:47	20° © 55'40	
opposition	-31 Jul 29 j 08:12	2° ≈ 49'11	-1°-12'-30		-25 Jun 12 j 15:54	$0^{\circ}\Omega$	
min. Earth dist.	-31 Jul 29 j 05:43	2° ≈ 50'00	4.00820 AU	evening set	-25 Jul 25 j 15:16	8° Ω 45'49	
	-31 Aug 21 j 04:54	30°R₹					
direct	-31 Sep 26 j 07:23	27° る 55'44		conjunction	-25 Aug 07 j 21:40	11° Ω 38'33	0°56'15
	-31 Oct 31 j 21:43	0°≈		minimum elong	-25 Aug 07 j 21:38	11° Ω 38'31	0°56'15
	-30 Jan 19 j 06:13	15° ≈		max. Earth dist.	-25 Aug 07 j 10:41	11° Ω 32'34	6.40871 AU
evening set	-30 Jan 29 j 05:24	17°≈22'16		morning rise	-25 Aug 07 j 10:41 -25 Aug 21 j 01:17	14° Ω 29'47	50071710
croming soc	50 Juli 27 J 05.24	1, 70.22 10		2110111111g 1150	-25 Aug 21 j 01:17	14 % 2347 15° Ω	
conjunction	-30 Feb 11 j 07:46	20° ≈ 31'25	_1°_1' 16		-25 Nov 19 j 05:23	0°m)	
•	-			ratragrada		-	
minimum elong	-30 Feb 11 j 07:43	20°≈31'23		retrograde	-25 Dec 19 j 13:12	1° Mp 25'32	
max. Earth dist.	-30 Feb 12 j 03:00		5.97856 AU	*.*	-24 Jan 18 j 20:01	30°RΩ	1025120
morning rise	-30 Feb 24 j 13:04	23°≈42'14		opposition	-24 Feb 17 j 19:14	26° Ω 31'06	
	-30 Mar 23 j 13:52	0° ∀		min. Earth dist.	-24 Feb 18 j 10:13	20~ 3 (26'14	4.43219 AU

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -24 in astronomical counting style is the year 25 BCE in historical counting style. -24 Apr 20 j 03:28 21°Ω28'08 direct min. Earth dist. -19 Aug 03 i 02:51 7°≈46'06 3.99829 AU -19 Oct 01 j 02:29 -24 Jul 11 j 02:38 0°m direct 2°≈51'02 -24 Aug 25 j 02:46 9° m 06'05 -18 Jan 02 j 09:54 15°**≈** evening set max. Earth dist. -24 Sep 05 j 17:12 11° mp 36'56 -18 Feb 03 j 02:23 22°≈20'36 6.43740 AU evening set -24 Sep 07 j 01:19 11° **m** 54'25 1°11'06 -18 Feb 16 j 05:39 25°≈30'30 -1°-4'-25 conjunction conjunction -18 Feb 16 j 05:37 -24 Sep 07 j 01:19 1°11'05 minimum elong 11° **m** 54'24 minimum elong 25°≈30'28 1°04'27 -24 Sep 19 j 20:44 14° m/41'19 -18 Feb 17 j 02:51 morning rise max. Earth dist. 25°≈43'17 5.97189 AU -24 Dec 17 j 12:42 -18 Mar 01 j 12:08 0∘Φ morning rise 28°≈42'07 -23 Jan 18 j 00:10 retrograde 1°**2**31'04 -18 Mar 06 j 22:45 0°**∀** -18 Jul 11 j 22:18 -23 Feb 18 j 14:54 30°R, Mp retrograde 19°**升**17'32 -23 Mar 19 j 15:46 26° m/38'50 1°43'33 -18 Sep 09 j 20:36 opposition opposition 14°**)** 14'31 -1°-45'-46 -23 Mar 20 j 19:56 -18 Sep 08 j 20:24 min. Earth dist. 26° m 29'49 4.42696 AU min. Earth dist. 14°**¥**22'41 3.96789 AU direct -23 May 21 j 09:23 21° m 37'09 direct -18 Nov 06 j 19:30 9°**¥**20′12 -23 Aug 10 j 08:15 0 \circ $\overline{\mathbf{v}}$ evening set -17 Mar 12 j 07:04 28°\£56'34 evening set -23 Sep 24 j 20:34 9°**£**17'35 -17 Mar 16 j 17:36 $0^{\circ}\Upsilon$ max. Earth dist. -23 Oct 05 j 14:59 11°**≏**39'34 6.39758 AU conjunction -17 Mar 25 j 18:29 2°Y'09'33 -1°-9'-4 conjunction -23 Oct 07 j 13:23 12°**♀**05'09 1°06'32 minimum elong -17 Mar 25 j 18:30 2°**Y**′09'34 1°09'05 minimum elong -23 Oct 07 j 13:25 12°**♀**05'10 1°06'32 max. Earth dist. -17 Mar 27 j 17:30 2°**Y**37'39 5.98385 AU morning rise -23 Oct 20 j 04:06 14°**£**51'47 morning rise -17 Apr 08 j 08:45 5°**Y**23′59 -22 Jan 12 j 15:59 0°M retrograde -17 Aug 17 j 22:37 25° Y 43'40 retrograde -22 Feb 18 j 14:16 2°M03'00 min. Earth dist. -17 Oct 15 i 03:31 20°**Y**49'45 4.02172 AU -22 Mar 27 j 19:34 30°R<u>₽</u> opposition -17 Oct 16 j 12:16 20°**Y**38'35 -1°-31'-2 opposition -22 Apr 20 j 11:26 27°**♀**11'17 1°23'23 direct -17 Dec 13 j 13:14 15°**Y**41'38 min. Earth dist. -22 Apr 21 j 22:29 27°**₽**00'08 -16 Mar 26 j 16:48 0°8 4 35488 AU direct -22 Jun 21 j 23:12 -16 Apr 17 j 16:15 5°**8**00'03 22°**£**11'37 evening set -22 Sep 06 j 17:23 oom. -22 Oct 25 j 17:28 10°ML09'25 conjunction -16 May 01 j 09:40 8°811'40 0°-47'-10 evening set -22 Nov 05 j 09:51 12°M33'46 -16 May 01 j 09:43 max. Earth dist. minimum elong 8°**8**11'42 0°47'10 6.29858 AU -16 May 03 j 14:06 6.07392 AU max. Earth dist. 8°**8**42'12 -22 Nov 07 j 08:25 -16 May 15 j 04:53 13°ML00'05 0°43'06 11°**8**23'56 conjunction morning rise -22 Nov 07 j 08:27 -16 May 31 j 00:22 15°8 minimum elong 13°ML00'06 0°43'06 -22 Nov 16 j 04:39 -16 Aug 29 j 15:10 Π °0 15°M₀ -22 Nov 19 j 22:12 -16 Sep 20 j 18:31 $0^{\circ} \Pi 48'05$ morning rise 15°M50'26 retrograde -16 Oct 12 j 17:58 -21 Jan 31 j 22:55 30°₹**႘** 0°**√** -16 Nov 18 j 00:42 -21 Mar 23 j 22:06 3°**∡**¹47'56 min. Earth dist. 25°**8**54'03 4.13746 AU retrograde -21 May 15 j 08:53 30°RM opposition -16 Nov 19 j 07:07 25°**8**43'41 0°-43'-14 opposition -21 May 23 j 21:57 28°ML55'06 0°37'51 direct -15 Jan 17 j 04:46 20°**8**43'39 min. Earth dist. -21 May 25 j 04:16 28°M45'26 4.23430 AU -15 Apr 09 j 08:10 Π °0 direct -21 Jul 24 j 10:05 23°M58'04 evening set -15 May 23 j 23:19 9°**Ⅱ**29'16 -21 Sep 27 j 17:25 0°×7 -21 Nov 26 j 15:34 12°**∡** 25′27 conjunction -15 Jun 06 j 17:34 12°**Ⅲ**35'24 0°-9'-12 evening set max. Earth dist. -21 Dec 07 j 21:39 15°**₹**02'11 6.16675 AU minimum elong -15 Jun 06 j 17:35 12°**Ⅱ**35'25 0°09'12 behind sun begin -15 Jun 06 j 10:35 12°**Ⅲ**31'29 -21 Dec 09 i 07:47 15°**₹**22'04 0°05'47 -15 Jun 07 i 00:35 12°**Ⅲ**39'20 conjunction behind sun end -21 Dec 09 i 07:47 -15 Jun 08 i 07:59 minimum elong 15°**∡**122'04 0°05'47 max. Earth dist. 12°**П**57'06 6.20585 AU -21 Dec 09 i 00:08 -15 Jun 20 j 11:27 15°**Ⅱ**41′05 behind sun begin 15°**х** 17′38 morning rise -21 Dec 09 j 15:26 behind sun end 15°**₹**¹26'30 -15 Sep 02 i 02:49 0ಂತಾ morning rise -21 Dec 22 i 00:33 18°**₹**19'12 asc. node -15 Sep 04 j 04:04 0°917'22 desc. node -20 Feb 02 j 01:18 27°×31'52 retrograde -15 Oct 23 i 11:28 3°958'07 -20 Feb 14 j 23:21 0°ਰ -15 Dec 14 j 04:48 30°RⅡ -20 Apr 27 j 13:17 7°る20'03 min. Earth dist. -15 Dec 21 j 09:28 29°**Ⅲ**02'29 4.27210 AU retrograde -20 Jun 27 j 07:38 28°**II**56'48 0°16'13 opposition 2°る24'36 0°-22'-49 opposition -15 Dec 22 j 02:22 23°**I**I54'32 min. Earth dist. -20 Jun 28 j 00:06 2°る19'16 4.10018 AU direct -14 Feb 20 j 08:28 -20 Jul 16 j 19:03 30°R*x*7 -14 Apr 27 j 11:21 0ಂತಾ -20 Aug 26 j 11:58 27°**х** 29′58 direct evening set -14 Jun 27 j 11:11 12°906'24 -20 Oct 05 j 10:19 0°궁 -20 Dec 29 j 08:21 16°る32'03 conjunction -14 Jul 11 j 00:30 15°905'03 0°30'15 evening set -14 Jul 11 j 00:28 0°30'14 minimum elong 15°905'02 -19 Jan 11 j 04:59 19°る35'50 0°-35'-9 -14 Jul 11 j 14:08 conjunction max. Earth dist. 15°**©**12'33 6.33292 AU -19 Jan 11 j 04:57 minimum elong 19°**る**35'49 0°35'09 morning rise -14 Jul 24 j 11:41 18°902'28 max. Earth dist. -19 Jan 10 j 20:09 19°**る**30'34 6.04267 AU -14 Sep 23 j 05:56 0 $^{\circ}\Omega$ morning rise -19 Jan 24 j 03:37 22°**る**40'55 retrograde -14 Nov 23 j 11:10 5°**Ω**25'11 -19 Feb 25 j 02:23 0°≈ opposition -13 Jan 22 j 10:15 0°**Ω**27'42 1°07'32 -19 Jun 03 j 23:04 12°≈43'36 min. Earth dist. -13 Jan 22 j 09:41 0°**Ω**27'54 4.38222 AU retrograde -19 Aug 03 j 07:55 7°≈44'26 -1°-18'-45 -13 Jan 25 j 22:21 30°Rூ opposition

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, Attention, astronomical year style is used: The year -13 in astronomical counting style is the year 14 BCE in historical counting style. 25°524'29 direct -13 Mar 24 j 22:24 opposition -8 Jul 02 i 09:21 7°る20'35 0°-31'-29 -13 May 21 j 13:34 $0^{\circ}\Omega$ min. Earth dist. -8 Jul 02 j 22:56 7°る16'11 4.08178 AU -8 Aug 31 j 08:00 -13 Jul 30 j 03:15 13°**Ω**11'49 2°**ප**26'15 direct evening set -13 Aug 07 j 11:16 15°**Ω** -7 Jan 03 j 05:27 21°る33'33 evening set -13 Aug 12 j 08:31 16° Ω03'42 0°59'25 -7 Jan 16 j 02:47 24°る38'22 0°-40'-18 conjunction conjunction -13 Aug 12 j 08:29 16°**Ω**03'41 0°59'25 -7 Jan 16 j 02:45 0°40'18 minimum elong minimum elong 24°**る**38'20 -13 Aug 11 j 19:06 -7 Jan 15 j 21:12 max. Earth dist. 15°**Ω**56'24 6.41750 AU max. Earth dist. 24°**る**35'02 6.02709 AU 18°**Ω**54'04 morning rise -13 Aug 25 j 10:48 morning rise -7 Jan 29 j 02:31 27°**る**44'36 -13 Oct 20 j 23:40 0°m -7 Feb 07 j 15:51 0°≈ retrograde -13 Dec 23 j 19:09 5° Mp 46'48 -7 Apr 26 j 12:39 15°≈ -12 Feb 22 j 02:36 -7 Jun 09 j 06:54 opposition 0° m 52'42 1°38'16 retrograde 17°≈55'00 -12 Feb 22 j 19:44 -7 Jul 23 j 08:59 min. Earth dist. 0°Mp47'09 4.43698 AU 15°R≈ -12 Feb 28 j 22:14 30°R€ opposition -7 Aug 08 j 13:55 12°**≈**55'16 -1°-24'-47 direct -12 Apr 24 j 13:27 25°**Ω**49'49 min. Earth dist. -7 Aug 08 j 05:48 12°**≈**57'58 3.98732 AU -12 Jun 18 j 17:06 0°m direct -7 Oct 06 j 04:43 8°≈01'52 evening set -12 Aug 29 j 10:43 13° Mp 26'32 -7 Dec 12 j 23:02 15°**≈** max. Earth dist. -12 Sep 09 j 20:14 15° **m** 54'53 6.43737 AU evening set -6 Feb 08 j 06:08 27°≈34'43 -6 Feb 18 j 07:30 0°**)**€ conjunction -12 Sep 11 j 08:11 16° m) 14'26 1°11'38 minimum elong -12 Sep 11 j 08:10 16° Mp 14'26 1°11'38 conjunction -6 Feb 21 j 10:43 0°\(\frac{1}{45}\)'24 -1°-6'-45 morning rise -12 Sep 24 i 02:50 19° m 01'00 minimum elong -6 Feb 21 i 10:41 0°**)** 45′23 1°06'46 -12 Nov 18 j 20:38 0∘**⊽** max. Earth dist. -6 Feb 22 i 13:44 1°**)**(01'42 5.96672 AU retrograde -11 Jan 22 i 08:27 5°**♀**51'33 morning rise -6 Mar 06 i 18:16 3°**)** 57'46 opposition -11 Mar 24 j 00:39 0°**£**59'24 1°42'22 retrograde -6 Jul 17 i 06:49 24°) (34'43 min. Earth dist. -11 Mar 25 j 06:37 0°**2**49'48 4.42207 AU -6 Sep 14 j 00:44 19°**)** 40'04 3.96954 AU min. Earth dist. -11 Mar 31 j 19:33 opposition -6 Sep 15 j 02:35 19°**¥**31′20 -1°-46'-14 30°R M direct -11 May 25 j 18:51 -6 Nov 12 j 00:12 25° m 57'51 direct 14°\ 36'50 -11 Jul 18 j 21:19 -5 Feb 27 j 14:17 $0^{\circ}\Upsilon$ 0∘ଫ 4°Υ12'24 -11 Sep 29 j 03:11 13°**♀**39'22 -5 Mar 17 j 14:03 evening set evening set 6.38808 AU -11 Oct 09 j 21:27 max. Earth dist. 16°**≙**01'34 -5 Mar 31 j 02:23 7°**Y**25'27 -1°-7'-26 conjunction 16°**2**27'07 1°04'18 -11 Oct 11 j 19:40 -5 Mar 31 j 02:25 7°**Υ**25'29 1°07'28 conjunction minimum elong -11 Oct 11 j 19:42 16°**≙**27'08 1°04'18 max. Earth dist. -5 Apr 02 j 03:14 7°**Y**54'34 5.99215 AU minimum elong -11 Oct 24 j 09:50 10°**Y**39'57 19°**£**13'57 -5 Apr 13 j 17:47 morning rise morning rise -11 Dec 16 j 18:43 -5 Jul 30 j 13:02 0° 8 0°M -10 Feb 23 j 01:38 -5 Aug 22 j 23:01 0°**8**53'38 retrograde 6°M29'46 retrograde opposition -10 Apr 25 j 00:18 1°ML37'57 1°18'23 -5 Sep 15 j 04:33 30°RY min. Earth dist. -10 Apr 26 j 11:06 1°M26'54 4.34123 AU min. Earth dist. -5 Oct 20 j 02:34 26°Υ00'12 4.03596 AU -10 May 08 j 02:04 30°R<u>₽</u> opposition -5 Oct 21 j 12:57 25°**Υ**'48'28 -1°-25'-52 direct -10 Jun 26 j 09:13 26°**♀**38'38 direct -5 Dec 18 j 15:12 20°Υ51'08 -10 Aug 13 j 20:41 $0^{\circ}M$ -4 Mar 07 j 14:27 0°8 -10 Oct 30 j 02:07 14°M39'42 -4 Apr 22 j 20:57 10°**8**04'59 evening set evening set -10 Oct 31 j 14:12 max. Earth dist. -10 Nov 09 j 18:21 17°ML04'34 6.28177 AU conjunction -4 May 06 j 14:50 13°**8**15'57 0°-42'-27 -4 May 06 i 14:53 13°**8**15'59 0°42'29 minimum elong -10 Nov 11 j 16:55 -4 May 08 j 18:40 conjunction 17°ML31'00 0°38'32 max. Earth dist. 13°846'00 6.09296 AU minimum elong -10 Nov 11 j 16:57 17°MJ31'01 0°38'32 -4 May 14 i 02:28 15°8 morning rise -10 Nov 24 i 07:02 20°M22'09 morning rise -4 May 20 i 10:08 16°**8**27'23 -9 Jan 08 i 18:51 0°×7 -4 Jul 25 i 06:51 $\Pi^{\circ}0$ -9 Mar 28 j 18:39 8°**х** 27′40 retrograde -4 Sep 25 j 11:58 5°**Ⅱ**41'16 retrograde -9 May 28 j 17:16 3°**₹**'34'32 0°29'55 min. Earth dist. -4 Nov 22 j 19:50 0°**П**46'51 4.15903 AU opposition min. Earth dist. -9 May 29 j 23:05 3° ₹25'00 4.21520 AU -4 Nov 24 j 00:16 0°**Ц**37'10 0°-35'-5 opposition -9 Jun 29 j 01:11 30°RM -4 Nov 28 j 13:50 30°R₩ 25°**8**36'47 direct -9 Jul 29 j 02:17 28°M37'48 direct -3 Jan 22 j 03:09 -9 Aug 27 j 22:37 0°**∡**¹ -3 Mar 17 j 05:56 Π °0 -9 Dec 01 j 05:07 evening set 17°**∡**10'07 evening set -3 May 28 j 21:31 14°**Ⅱ**16'14 -9 Dec 13 j 21:53 20°**∡**107'45 0°00'-5 -3 Jun 11 j 15:24 17°**I**21'14 0°-3'-31 conjunction conjunction -9 Dec 13 j 21:54 20°**х** 07'45 0°00'06 -3 Jun 11 j 15:24 17°**Ⅲ**21'14 0°03'31 minimum elong minimum elong -9 Dec 13 j 14:09 20°**х** 03′15 -3 Jun 11 j 07:07 17°**Ⅱ**16'36 behind sun begin behind sun begin behind sun end -9 Dec 14 j 05:40 20°**х** 12′16 behind sun end -3 Jun 11 j 23:41 17°**Ⅲ**25'52 max. Earth dist. -9 Dec 12 j 14:38 19°**✗**49'29 6.14711 AU max. Earth dist. -3 Jun 13 j 03:51 17°**Ⅱ**41'43 6.22817 AU desc. node -9 Dec 13 j 01:46 19°**₹**55'59 morning rise -3 Jun 25 j 08:31 20°**Ⅲ**25'38 morning rise -9 Dec 26 j 15:18 23°**₹**06'01 asc. node -3 Jul 15 j 11:49 24°**Ⅱ**49'45 -8 Jan 26 j 08:00 0°궁 -3 Aug 10 j 02:12 0ಂತಾ retrograde -8 May 02 j 15:33 12°る16'28 -3 Oct 27 j 19:06 8°532'43 retrograde

Planetary Phenomena of Jupiter from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:48, page 36

•	mena of Jupiter 1		•	· ·		, ,	36
		-			CE in historical counti		00 (100
opposition	-3 Dec 26 j 12:22	3°931'55		conjunction	03 Dec 18 j 14:26	25° ₹ 00'15	0°-6'00
min. Earth dist.	-3 Dec 25 j 20:45	3°537'09	4.29321 AU	minimum elong	03 Dec 18 j 14:26	25° ∡ 100′15	0°06'01
T'	-2 Jan 24 j 22:09	30°RⅡ		behind sun begin	03 Dec 18 j 06:48	24° 🗷 55'47	
direct	-2 Feb 24 j 22:13	28° Ⅱ 29'28		behind sun end	03 Dec 18 j 22:04	25° ∡ 04'43	
	-2 Mar 28 j 09:58	0°95		morning rise	03 Dec 31 j 08:46	27° ∡ ¹59'52	
evening set	-2 Jul 02 j 01:44	16° © 35'58			04 Jan 08 j 23:48	0° る	
				retrograde	04 May 07 j 21:56	17°る21'05	
conjunction	-2 Jul 15 j 13:54	19° © 33'24	0°35'03	opposition	04 Jul 07 j 13:58	12° る 24'40	0°-40'-4
minimum elong	-2 Jul 15 j 13:52	19° © 33'23	0°35'03	min. Earth dist.	04 Jul 08 j 00:10	12° る 21'21	4.06178 AU
max. Earth dist.	-2 Jul 15 j 22:45	19° © 38'16	6.35111 AU	direct	04 Sep 05 j 07:40	7° る 30'33	
morning rise	-2 Jul 28 j 23:54	22° © 29'34		evening set	05 Jan 08 j 05:32	26° る 43'27	
	-2 Sep 03 j 00:51	0 ° Ω					
retrograde	-2 Nov 27 j 16:17	9° Ω 45'39		conjunction	05 Jan 21 j 03:57	29° る 49'22	0°-45'-13
opposition	-1 Jan 26 j 15:59	4° Ω 48'43	1°13'06	minimum elong	05 Jan 21 j 03:55	29° る 49'20	0°45'14
min. Earth dist.	-1 Jan 26 j 18:59	4° Ω 47'44	4.39617 AU	max. Earth dist.	05 Jan 21 j 04:45	29° る 49'50	6.01193 AU
	-1 Mar 16 j 20:19	30° ₹			05 Jan 21 j 21:41	0° ≈	
direct	-1 Mar 29 j 09:03	29° © 45'28		morning rise	05 Feb 03 j 04:38	2° ≈ 56'42	
	-1 Apr 10 j 23:15	0 \circ Ω			05 Mar 29 j 23:38	15° ≈	
	-1 Jul 22 j 18:49	15° Ω		retrograde	05 Jun 14 j 18:03	23° ≈ 14′03	
evening set	-1 Aug 03 j 11:33	17° Ω 29'40		opposition	05 Aug 13 j 22:40	18° ≈ 13'42	-1°-30'-11
				min. Earth dist.	05 Aug 13 j 11:41	18° ≈ 17'21	3.97889 AU
conjunction	-1 Aug 16 j 15:42	20° Ω 20'45	1°02'09		05 Sep 09 j 13:23	15°R ≈	
minimum elong	-1 Aug 16 j 15:40	20° Ω 20'44	1°02'09	direct	05 Oct 11 j 09:53	13° ≈ 20′18	
max. Earth dist.	-1 Aug 15 j 22:07	20° Ω 11'12	6.42591 AU		05 Nov 12 j 00:00	15° ≈	
morning rise	-1 Aug 29 j 16:48	23° Ω 10′18			06 Feb 01 j 06:01	0° ∀	
	-1 Oct 01 j 15:13	0° ™		evening set	06 Feb 13 j 12:40	2° ¥ 55′01	
retrograde	-1 Dec 27 j 21:45	10° Mp 00'47					
opposition	00 Feb 26 j 07:01	5° m 07'01	1°40'26	conjunction	06 Feb 26 j 18:10	6° ∺ 06'13	-1°-8'-33
min. Earth dist.	00 Feb 27 j 02:15	5° Mp 00′48	4.43959 AU	minimum elong	06 Feb 26 j 18:09	6° ∺ 06'12	1°08'33
direct	00 Apr 28 j 19:10	0° Mp 04'13		max. Earth dist.	06 Feb 28 j 00:42	6°) 24'37	5.96544 AU
evening set	00 Sep 02 j 15:41	17° m) 40'46		morning rise	06 Mar 12 j 03:01	9° ∺ 19'08	
max. Earth dist.	00 Sep 13 j 22:34	20° m 07'53	6.43385 AU	retrograde	06 Jul 22 j 13:09	29° ¥ 55′09	
				min. Earth dist.	06 Sep 19 j 04:04	25° ₭ 01'06	3.97572 AU
conjunction	00 Sep 15 j 12:21	20° m 28'28	1°11'46	opposition	06 Sep 20 j 09:02	24° ¥ 51'18	-1°-45'-47
minimum elong	00 Sep 15 j 12:20	20° m 28'28	1°11'46	direct	06 Nov 17 j 05:45	19° ¥ 56′24	
morning rise	00 Sep 28 j 06:06	23° m 14'51			07 Feb 08 j 17:06	0° Υ	
	00 Oct 30 j 15:09	0∘ ⊽		evening set	07 Mar 22 j 21:49	9° Ƴ 29'19	
retrograde	01 Jan 26 j 14:45	10° ≙ 07'42					
opposition	01 Mar 28 j 07:42	5° ≙ 15'45	1°40'42	conjunction	07 Apr 05 j 11:09	12° Y 42'14	-1°-5'-15
min. Earth dist.	01 Mar 29 j 15:33	5° ≙ 05'35	4.41261 AU	minimum elong	07 Apr 05 j 11:12	12° Ƴ 42'15	1°05'16
direct	01 May 30 j 01:48	0° ≙ 14'29		max. Earth dist.	07 Apr 07 j 13:59	13° Y 12′25	6.00487 AU
evening set	01 Oct 03 j 08:15	17° ≙ 58'41		morning rise	07 Apr 19 j 03:14	15° Ƴ 56'24	
max. Earth dist.	01 Oct 13 j 23:23	20° ♀ 19'44	6.37321 AU		07 Jun 24 j 20:20	0°B	
				retrograde	07 Aug 27 j 23:25	6° 8 02'08	
conjunction	01 Oct 16 j 00:15	20° ≏ 46'51	1°01'46	min. Earth dist.	07 Oct 25 j 03:16	1° 8 08'19	4.05341 AU
minimum elong	01 Oct 16 j 00:17	20° ♀ 46'52	1°01'45	opposition	07 Oct 26 j 12:47	0° ප් 56'52	-1°-20'00
morning rise	01 Oct 28 j 14:24	23° ₽ 34'15			07 Nov 02 j 12:23	30° Ŗ ♈	
	01 Nov 27 j 17:39	0° M		direct	07 Dec 23 j 18:48	25° Y ′59′01	
retrograde	02 Feb 27 j 15:02	10°M56'49			08 Feb 12 j 10:20	0°B	
opposition	02 Apr 29 j 13:19	6°ML04'54	1°13'00		08 Apr 27 j 11:57	15° ႘	
min. Earth dist.	02 May 01 j 00:28	5°M53'42	4.32176 AU	evening set	08 Apr 28 j 00:45	15° 8 07'21	
direct	02 Jun 30 j 19:31	1°ML05'52		C	1 3		
	02 Oct 15 j 11:56	15° M ₀		conjunction	08 May 11 j 19:00	18° 8 17'32	0°-37'-27
evening set	02 Nov 03 j 11:00	19°ML12'13		minimum elong	08 May 11 j 19:03	18° 8 17'33	0°37'28
max. Earth dist.	02 Nov 14 j 05:34	21°MJ39'06	6.25943 AU	max. Earth dist.	08 May 13 j 22:30	18° 8 47'14	6.11352 AU
	,			morning rise	08 May 25 j 14:17	21° 8 28'00	
conjunction	02 Nov 16 j 02:08	22° M .04'31	0°33'45	5 -	08 Jul 03 j 17:53	0°II	
minimum elong	02 Nov 16 j 02:10	22°ML04'32		retrograde	08 Sep 30 j 02:32	10° Ⅱ 31'17	
morning rise	02 Nov 28 j 16:26	24°M56'43		opposition	08 Nov 28 j 16:08	5° Ⅱ 27'34	0°-26'-46
<i>5</i> - ,	02 Dec 21 j 11:13	0° ∡ ¹		min. Earth dist.	08 Nov 27 j 12:25	5° Ⅱ 36'59	4.18058 AU
retrograde	03 Apr 02 j 15:42	13° ∡ 12'15		direct	09 Jan 26 j 22:14	0° Ⅱ 26′50	
opposition	03 Jun 02 j 14:05	8° ∡ 18'52	0°21'45	asc. node	09 May 25 j 08:01	17° Ⅱ 08'25	
min. Earth dist.	03 Jun 03 j 18:05	8° ₹ 09'54	4.19156 AU	evening set	09 Jun 02 j 18:50	19° Ⅱ 00′29	
direct	03 Aug 02 j 18:06	3° ∡ ¹22'33		3	. ,		
desc. node	03 Oct 22 j 23:16	12° ₹ 25'24		conjunction	09 Jun 16 ₁ 12:00	22° Ⅱ 04'19	0°02'19
desc. node evening set	03 Oct 22 j 23:16 03 Dec 05 j 21:14	12° х' 25'24 22° х' 01'25		conjunction minimum elong	09 Jun 16 j 12:00 09 Jun 16 j 11:59	22°Щ04'19 22° Щ 04'19	0°02'19 0°02'19
desc. node evening set max. Earth dist.	03 Oct 22 j 23:16 03 Dec 05 j 21:14 03 Dec 17 j 09:27	22° ∡ *01'25	6.12428 AU	conjunction minimum elong behind sun begin	09 Jun 16 j 12:00 09 Jun 16 j 11:59 09 Jun 16 j 03:39		